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Lessons from the American federal-state unemployment insurance system for a European unemployment benefits system

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Abstract This article reviews practices in the United States (US) federal-state unemployment insurance (UI) system regarding applicant eligibility, benefit generosity, benefit financing and emergency measures with the aim of revealing lessons for a possible European unemployment benefit system (EUBS) for European Union (EU) Member States. We overview the US system for UI and examine important areas of federal leadership. While the US system offers some good ideas for setting up an EUBS, there are also lessons in some shortcomings of the US experience. We overview existing national UI systems in the EU and review the debate on an EUBS in the EU. We identify areas of risk for individual and institutional moral hazard in a multi-tiered UI system and give examples of monitoring methods and incentives to ameliorate such risks. We suggest approaches for gradual

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system development, encouraging lower-tier behaviour, benefit financing, and responses to regional and system-wide labour market crises.

Keywords unemployment benefit, social insurance, public finance, European Union, United States

Introduction

Given the uneven experience across European Union (EU) Member States during the Great Recession with programmes to temporarily replace lost income during involuntary unemployment, the EU has renewed interest in a multinational system of unemployment insurance (UI) within the European Monetary Union (EMU).[1] Concerns about ensuring adequate protection for unemployed workers, along with political tensions about the potential international spillover effects unemployment can have between nations, has focused efforts to find models for cooperation between EU Member States. Owing to its long history and two-tier structure, the federal-state UI system in the United States may offer some lessons for a European unemployment benefits system (EUBS).

While there has been prior debate within the EU about introducing an EUBS, such a scheme does not exist. However, the crisis of the Great Recession exposed shortcomings of some national UI systems within the EMU, and the topic has re-emerged. Some national leaders are clearly in favour of an EUBS, while others have rejected the idea.[2] The President-elect of the European Commission, Ursula von der Leyen, said in her candidate statement to the European Parliament on 16 July 2019 that, "I want better protection for those who lose their jobs when

1. For the United States, the National Bureau of Economic Research business-cycle dating committee set the official length of the contraction starting in December 2007 at 18 months. It was the longest US contraction since the Great Depression, which started in August 1929. The Great Recession earned its name not only from its length but from the speed of decline following the evaporation of credit, the permanence of high-wage job loss, and the international ripples it caused, which are still being felt (Grusky, Western and Wimer, 2011).

2. Some have even put forward their own proposal for an EUBS, e.g. there is an Italian proposal and a German-Spanish proposal for a robust European unemployment insurance (Dullien et al., 2017). The latter proposal combines elements of self-insurance by the Member States with elements of joint insurance and is put forward as a "compromise scheme". This scheme would be set up as a reinsurance scheme, where countries pay 0.1 per cent of their GDP annually into a fund, of which 80 per cent is earmarked in a national component and 20 per cent in a common component.

our economy takes a severe hit. A European unemployment benefit reinsurance scheme will support our economies and our people in times of external shocks. Of course there are national unemployment insurances but a reinsurance scheme for these heavy external shocks is needed in Europe".[3] A recent large opinion survey of European citizens in thirteen Member States indicates majority support for international sharing of unemployment risk insurance through modest but adequate income transfers across countries (Vandenbroucke et al., 2018). The survey suggests Europeans favour UI that provides adequate income replacement while emphasizing job training, education and reemployment assistance. The time may thus be right to introduce an EUBS.

In this article, we review aspects of the two-tiered UI system operating in the United States (US) as a prime example for international cooperation within the EU. We examine US provisions for UI applicant eligibility, benefit generosity, and benefit financing, with the aim of revealing lessons for a possible EUBS. We examine areas of federal leadership, explicit federal-state cooperation, and state innovation. While the US system offers some good ideas for establishing an EUBS, there are also lessons from some shortcomings of the US experience.[4] We identify areas of risk for individuals and institutional moral hazard in a multi-tiered UI system, and we give examples of monitoring methods and incentives to ameliorate such risks. After examining aspects of the US system, we describe the history of the EUBS debate, designs that have been considered, and the outlook for an EUBS. We conclude by summarizing a plan based on US experience for gradual EUBS development, encouraging specific behaviours by EU Member States, promoting benefit financing cooperation, and giving elements of a plan to respond to regional and system-wide crises.

Background on the US system for unemployment insurance

The federal-state US unemployment insurance (UI) programme was established by the Social Security Act of 1935 to provide temporary partial wage replacement to involuntarily unemployed persons actively seeking new jobs. A federal inducement to create state UI programmes was provided by a tax incentive. A federal tax was imposed on wages paid by UI-covered employers, with a 90 per cent reduction in the federal tax granted to employers in states establishing UI systems in

3. Von der Leyen (2019, p.6). The full text is available here.
4. Other recent papers drawing lessons for European nations considering adopting a multi-tiered UI system are Fischer (2017), Lenaerts, Paquier and Simonetta (2017), and Luigjes, Fischer and Vandenbroucke (2019).

conformity with federal guidelines.[5] The tax revenue accruing from the 10 per cent retained by the federal government is used for grants to states for programme administration, funding public employment services (PES) operated by the states, paying the federal share of benefits under the permanent extended benefits (EB) programme, providing support for federal expenses incurred in operating the UI and employment service functions, and making loans to pay regular benefits when state reserves are inadequate. Federal law provides states with the latitude to establish practices that adapt to the economic and cultural conditions in that state. The interplay of federal and state partners has resulted in a system that varies greatly at the state level but maintains important federal standards nationwide.

There are five main goals for the federal-state UI system (O'Leary and Straits, 2004):

- To provide temporary partial wage replacement during involuntary unemployment.
- To prevent dispersal of employers' workforces during temporary layoffs.
- To promote rapid return to work.
- To limit business downturns by maintaining aggregate purchasing power.
- To encourage stabilization of employment in enterprises through experience rating.

The experience rating feature of UI tax contribution rates means that tax rates are higher for employers with more benefit charges, and vice versa. In addition to acting as an incentive to stabilize employment, experience rating is intended to increase employer involvement in monitoring UI eligibility and to make employers aware that layoffs have consequences for their tax rate.[6] Over the 80-year history of the programme, the objectives were largely met during the first 40 years, but, as discussed below, many programme elements have eroded since the 1980s.

The original benefit provisions in most state UI laws were modest, whereas financing features tended to be more than sufficient. In 1939, the federal taxable wage base of 3,000 United States dollars (USD) was high enough so that 98 per cent of all wages paid in the country were subject to the 3 per cent federal tax rate (Whittaker, 2016, p. 6).[7] The high coverage and modest tax rate led to the rapid

5. Title III of the Social Security Act established federal grants to the states to perform administrative functions for UI, and Title IX established the federal unemployment tax and related provisions (Blaustein, Cohen and Haber, 1993, pp. 151–153). The federal tax rebate incentive for states to establish UI programmes was found to be constitutional by the Supreme Court in 1937 (Blaustein, Cohen and Haber, 1993, pp. 157–158).

6. Fath and Fuest (2005) summarize research evidence that experience rating stabilizes employment when it is effective in the United States. However, state taxable wage base limits, tax rate maximums, and solvency taxes limit the range of experience rating and the effectiveness of employment stabilization.

7. The taxable wage base refers to earnings in the base period, which is not necessarily a calendar year. The base period is normally the first four of the last five completed calendar quarters before application for UI benefits.

accumulation of reserves in state accounts. Ten years after the programme's establishment, system-wide reserves were more than 10 per cent of total wages in UI-covered employment (US Department of Labor, 2019a). The accumulated reserves led to improved benefit levels and longer potential durations. By the 1970s, benefits typically replaced 50 per cent of lost wages up to the state maximum weekly benefit amount for up to 26 weeks of involuntary unemployment.[8] At present, the financial foundation for UI is weaker, and benefit provisions have been reduced in many states.

Federal influence over state UI programmes in the US[9]

The existing federal-state UI system is a delicate balance of power that was designed to be self-regulating by a built-in incentive structure. The federal partners hold the upper hand in the relationship. That is because federal requirements for conformity are central to regulating the system (Table 1).

The Social Security Act of 1935 provided 12 minimal conformity requirements for states. During the 1940s, two requirements were added about the use of UI-granted funds. New federal laws in the 1950s required coverage to be broadened, resulting in additional requirements, and further requirements were added in 1970 and 1976. In recent years, an overriding concern of the federal government has been controlling federal spending; consequently, changes to the UI system have often been done as part of the budget reconciliation process, because the federal Unemployment Trust Fund (UTF) is part of the unified federal budget, even though the states raise all the money for supporting their state UI systems.

A chronology of conformity requirements is given in Table 1. The original requirements covered prompt payment of benefits, location where UI payments were to be received, appeals procedures, management of funds, reporting to the US Department of Labor, and the requirement of experience rating as the basis for receiving the 90 per cent reduction in Federal Unemployment Tax Act (FUTA) tax rates. Requirements added in the 1940s and 1950s were included mainly to simplify procedures when interstate claims were involved. In more recent years, states have complained that federal conformity requirements have become more specific and their value more questionable, such as the requirement that professional athletes not be covered in the off-season.

Conformity standards govern many aspects of state programme design, but other elements, including the amount and duration of benefits, are state

8. A similar pattern of modest beginnings with improved financing and benefit adequacy over time can be observed in newer UI programmes among many developing countries (Vroman and Brusentsev, 2005).

9. This description was extracted and updated from O'Leary and Straits (2004).

Table 1. *A chronology of increasing federal conformity requirements for state unemployment insurance systems in the United States*

Original conformity requirements set in 1935 were minimal. They said states must: • Make full payment of benefits when due. • Make benefit payments through public employment offices. • Have fair appeals hearing processes. • Transfer tax receipts immediately to the Unemployment Trust Fund (UTF). • Use withdrawals from the state account in the UTF only to pay UI benefits. • Make required reports to the US Secretary of Labor. • Provide information to any federal agency running public works or assistance. • Not deny benefits to eligible individuals. • Not pay benefits until two years after contributions start. • Not deny benefits for refusal to fill a vacancy resulting from a labour strike. • States may repeal their UI laws at their own discretion. • Additional employer rate reductions must be based on experience rating.
Additional federal requirements were added in the following years regarding: • Interstate claims rights. • Rules for combining earnings from multiple employers to gain entitlement. • Broadened coverage of employers. • Allowing claimants receiving approved training to be eligible for UI. • Requirement that states must participate in the Extended Benefits (EB) programme. • Denial of benefits to workers who are not legal residents with employment privileges.
More federal requirements in later years regarding: • Intervening work required for requalification. • Denial to professional athletes during the off-season. • Benefit reduction for public pension income.
Restrictions motivated by the desire to conserve funds in the federal budget: • The Unified Budget Act of 1969 added the Unemployment Trust Fund to the annual federal budget. • Federal eligibility requirements for extended benefits were adopted. • The Balanced Budget and Emergency Deficit Control Act of 1985 was passed. • New claimants were profiled to identify those most likely to exhaust benefits, and they were required to participate in ES. • States were required to make withholding of federal income tax possible for beneficiaries.

Source: O'Leary and Straits (2004).

responsibilities. The following summary relies on recommendations issued by two federal advisory bodies, the 1980 National Commission on Unemployment Compensation (NCUC, 1980) and the 1996 Advisory Council on Unemployment Compensation (ACUC, 1996).

Benefit eligibility

Unemployment insurance in the United States is regarded as social insurance, having elements of both private insurance and social welfare. Eligibility rules are set to reduce individual moral hazard by requiring applicants to meet three criteria: i) be involuntarily jobless because of an unavoidable job separation; ii) have sufficiently strong recent attachment to the labour force; and iii) be able and available for and actively seeking work. The greatest variation among states is in the difference in the level of recent earned income required to qualify for UI benefit eligibility. Some states require as little as USD 1,000 in the base year, while others require as much as USD 5,000.[10]

Generosity of benefits

The standard of benefit adequacy accepted in the research literature is 50 per cent wage replacement for up to six months, with a maximum benefit amount equal to two-thirds the average wage in covered employment (ACUC, 1996). These levels were common among states by the 1960s and for more than 50 years thereafter, but in response to the UI debt accumulated by states during the Great Recession, ten states have retreated from these common levels of benefit adequacy (US Department of Labor, 2019b).[11] In the United States, there are no fixed federal requirements for duration or the dollar amount of weekly payments.

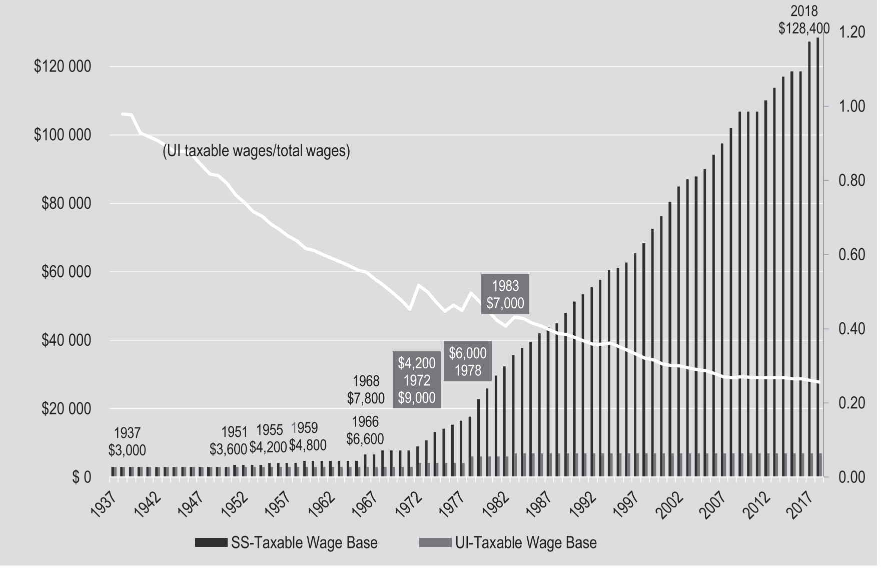
Financing UI benefits

Since 1951, the Social Security taxable wage base has risen dramatically, while the UI taxable wage base has stagnated (Figure 1); since 1977 legislation, the Social Security taxable wage base has been indexed to average wages, while the FUTA wage base has no automatic adjustments. The FUTA taxable wage base also is the minimum taxable wage standard for state UI financing systems.

Since 1939, the FUTA tax base has been increased only three times; most recently, it reached USD 7,000 in 1983. The FUTA taxable wage base now stands at less than 6 per cent of the Social Security taxable wage base. In 1939, more than 98 per cent of all wages and salaries in UI-covered employment were subject to the FUTA tax, but by 2018, only about 25 per cent of UI-covered earnings were FUTA taxable (Figure 1). All states must have state tax rates that are at least 90 per cent of the FUTA levels before reduction, and they must have taxable wage bases that are at least at the FUTA level. Two state taxable wage bases are at the federal minimum of USD 7,000, and more than half are less than double the FUTA base. The stagnant tax base has contributed to insufficient build-up of reserves to forward-fund benefits, which has resulted in adverse distributional consequences and tax incidence.

10. The standard base period is the first four of the five calendar quarters completed before application for UI benefits. If an applicant has insufficient earnings in the standard base period, some states consider earnings in an alternate base period, which is the four most recently completed calendar quarters.
11. The ten states with UI potential duration of less than 26 weeks as of 1 January 2019 are Arkansas, Florida, Georgia, Idaho, Illinois, Kansas, Michigan, Missouri, North Carolina and South Carolina.

Figure 1. *UI and social security taxable wage bases and the ratio of total to UI taxable wages, 1937-2018*



Sources: US Department of Labor (2019a); SSA (2019).

The federal-state extended benefits programme

The Extended Unemployment Compensation Act of 1970 created a permanent programme for UI extended benefits (EB) to be paid when the insured unemployment rate (IUR) exceeded set trigger levels.[12] The EB programme involves a 50-50 sharing of benefit payment costs between federal and state governments. When triggered, the EB programme lengthens potential durations by 50 per cent of the entitled duration of regular UI benefits. In most states, that means an additional 13 weeks of benefits after the entitlement to regular UI is exhausted.[13] Benefits under EB are paid at the same weekly rate as regular UI. The EB programme paid benefits in recessions in several states during the first 10 years after enactment, but it has rarely been triggered since that time.

Originally, the EB programme was a good example of federal-state cooperation. However, in recent years the triggers based on insured unemployment have rarely activated EB when total unemployment rises (Nicholson and Needels, 2006).

12. The IUR is the rate of insured unemployed persons in a period as a percentage of the UI-covered employed persons in the period. This ratio depends on the rate of UI application, the rules for benefit eligibility and the enforcement of eligibility rules.
13. States can opt to add an additional 25 per cent of the regular potential duration to the EB duration.

Under the original 1970 law, EB could be activated by a national trigger affecting all states, or a state-level trigger affecting EB only in that particular state.[14] In the early 1980s, the national trigger was eliminated and the state IUR trigger threshold was raised from 4 per cent to 5 per cent (Woodbury and Rubin, 1997).[15] Additionally, increasing UI eligibility requirements in some states resulted in low UI recipiency rates and low IUR rates that failed to trigger EB even when the total unemployment rate (TUR) had risen to quite high levels (Blank and Card, 1991). In response to the failure of EB to be activated in more than a few states during the early 1990s recession, in July 1992 Congress passed legislation allowing states to adopt an alternative trigger based on the TUR.[16]

In the 1990s and 2000s, emergency federal UI extensions were structured to be paid before any EB that might be available. Consequently, the EB programme has not actively functioned in the past 40 years. During the Great Recession, the American Recovery and Reinvestment Act (ARRA) provided temporary 100 per cent federal reimbursement of EB payments for states that adopted alternative EB triggers based on the TUR. The 100 per cent payment for EB was continued through midyear 2014 for states with conforming TUR triggers. All states that adopted TUR triggers had active EB programmes during the Great Recession, but a survey of states revealed that almost all TUR adopters said they would return to IUR triggers after the 100 per cent federal funding ended (Mastri et al., 2016).

Financing state programme administration

The federal-state relationship has been affected greatly in recent years by the federal budget implications of state actions. Federal grants to states for UI administration are determined by a formula based on workload factors such as the number of UI claims, appeals and covered employers. Driven by tight budgets, the federal government has tried to conserve funds, while the states have claimed that federal holdings for administration are state entitlements that should be distributed. Davidson and Martin (1996) argue that to encourage high-quality service, efficient low-cost administration and continuous quality improvement,

14. The original triggers set in 1970 were a national trigger of 4.5 per cent IUR over 13 weeks that would activate EB for all states, and a state-level trigger of 4.0 per cent IUR over 13 weeks that was at least 120 per cent of the IUR in the same period one year earlier.
15. The Ninety-Sixth Congress included the changes in Public Law (PL) 96-364 (1980) and PL 96-499 (1981).
16. The 1992 UI reforms were included in PL 102-182. The threshold for the alternative state EB trigger was a TUR above 6.5 per cent over a three-month period and 10 per cent above the three-month average TUR in either of the two preceding years.

the administrative funding mechanism should i) be based on the quality of services delivered and ii) that states should retain unspent financial grants.

Incentive for states to forward-fund benefits

For a state UI system to be sustainable in the long run, tax contributions should match benefit payments, on average, over business cycles. The accepted standard for UI benefit financing is based on the principle of forward-funding. Having money in reserves when unemployment increases means states do not have to raise employer UI taxes during recessions. Therefore, forward-funding reduces or eliminates any UI tax increases that could drive the economy into a worse situation when business conditions are weak. Accumulating reserves during economic recoveries puts a slight damper on expansions but helps avoid severe financing crises in the depths of recessions.

To achieve adequate forward-funding, state accounts in the federal Unemployment Trust Fund (UTF) should maintain balances "sufficient to pay at least one year of unemployment insurance benefits at levels comparable to its previous high cost" (ACUC, 1996, p. 11). The high cost rate is the ratio of the largest amount of benefits paid in a 12-month period divided by UI covered payrolls in that period. In 2010, a reserve target was put in place by the US Department of Labor for interest-free short-term loans to states. The target is to have a reserve rate equal to the average of the three highest-cost rates experienced in the prior 20 years, or the average high-cost rate (AHCR). To qualify, state UI reserves must be at least as large as the UI covered payrolls times the state AHCR. The rule became fully effective in 2019.

Loans to states to pay benefits

Most states that exhaust their reserve balance use the normal UI benefit financing procedure for loans available from the US Treasury. As mentioned in the previous subsection, adequate forward-funding means zero-interest short-term loans will be available, but states must pay interest charges on loan balances that remain outstanding after 30 September in any given year. The interest rate moves in tandem with yields paid in the market for US Treasury bonds. For example, rates since 2008 have ranged from 4.94 per cent down to 2.21 per cent.[17]

A total of 36 states borrowed from the US Treasury between 2009 and 2013. "By the end of 2015, ten states still had outstanding loan or bond debts. One UI programme (the US Virgin Islands) is still repaying loans from the US Treasury, while two states (Michigan and Pennsylvania) are still repaying bond debts from

17. US Treasury loan rates are available here.

UI benefit payments" (O'Leary and Kline, forthcoming). In terms of systemic risks to the loan fund, Vroman (2012, p. 4) finds that "the largest states seem likely to be among the last to fully repay their UI loans".

Emergency federal extensions of benefit durations

Since the 1950s, the federal government has provided emergency unemployment compensation (EUC) every time the annual average national unemployment rate has risen above 6 per cent. There have been eight EUC-type programmes, each enacted at congressional discretion, and all completely or mostly funded by general revenues of the federal government. During the Great Recession, the programme EUC08 was first enacted in 2008 and subsequently revised and extended several times; the last updates were in 2012. At its peak, the combination of EUC08 and EB provided up to 73 weeks of benefits on top of 26 weeks of regular UI.

Economic theory suggests that longer potential UI duration can induce longer benefit receipt (Decker, 1997). Some scholars suggest this happened in the 2008–2012 period, when generous EUC was available with longer durations; however, others find no evidence that EUC affected the rate of leaving insured unemployment (Farber, Rothstein and Valletta, 2015). In addition to partially replacing lost income, UI also aims to help stabilize the macroeconomy and arrest the descent into poverty by the unemployed. Yang, Lasky and Page (2010) assessed the timeliness and cost-effectiveness of 11 macroeconomic stimulus measures. They rated EUC the most effective because of a large income multiplier, and because EUC is a one-time expenditure that does not add to the nation's structural deficit. A related Congressional Budget Office analysis by Acs and Dahl (2010) found that among households in 2009 with at least one member of the household unemployed, those receiving EUC08 had a poverty rate of 19.6 per cent, while the poverty rate of those same households would have been 24.3 per cent without EUC.[18]

In addition to EUC08 extending UI benefits during the Great Recession, the American Recovery and Reemployment Act (ARRA) of 2009 provided for Federal Additional Compensation (FAC) to increase all UI weekly benefit amounts by USD 25 a week through 30 June 2010, at a cost of USD 9 billion. This FAC was subsequently extended to 31 December 2010. The ARRA also provided 65 per cent subsidies for up to 12 months of extended health

18. Acs and Dahl (2010) did not consider the behavioural response to longer potential UI durations, but it must be recognized that labour demand was exceptionally weak throughout 2009.

insurance premiums for UI-eligible persons who had lost their jobs on or after 1 September 2008.[19]

Mentoring state programme administrators

The US Department of Labor, together with the National Association of State Workforce Agencies (NASWA), mentors new state UI programme administrators and state programme management staff. In most cases, the chief state UI administrator is a political appointee who serves for a limited time. However, the legal responsibilities of the position are real, and the decisions that must be made often carry great weight. In 2015, the US Department of Labor published a manual for state administrators: "Unemployment Insurance Directors Guide". The manual provides a comprehensive summary of the programme and the director's responsibilities. In addition to general annual conferences on workforce development, NASWA hosts annual UI directors' conferences. Additionally, the US Department of Labor has well-established mechanisms for documenting regulations that are contained in the *Federal Register*, reviewing state-proposed legislative changes for federal conformity, and publishing occasional programme letters announcing available grants and programme changes. Annual events are scheduled for training state staff in areas of programme emphasis, including financial forecasting of reserve balances and updating Worker Profiling and Reemployment Services (WPRS) profiling models. The resources available to the state directors and their administrative staffs are well developed and continuously improving.

UI modernization under ARRA[20]

The American Recovery and Reinvestment Act (ARRA) of 2009 provided financial incentives for the expansion of UI eligibility that together were referred to as "UI modernization". The available financial incentives totalled USD 7 billion. States could receive one-third of their potential incentive payment for having an "alternate base period" (ABP) available for monetary determination of UI eligibility that includes the most recently completed calendar quarter, and the remaining two-thirds for having any two other benefit liberalizations.[21]

19. O'Leary and Barnow (2016) discuss federal funding of other special unemployment benefit programmes for Disaster Unemployment Assistance (DUA) and Trade Adjustment Assistance (TAA).
20. This section relies on O'Leary (2011).
21. States could choose two of the following four options: i) UI eligibility while seeking only part-time work, ii) UI eligibility after job separations due to harassment or compelling family reasons, iii) continuation of UI benefits for at least 26 additional weeks after exhaustion of regular benefits while in approved training and iv) dependents' allowances of at least USD 15 per dependent up to USD 50.

By the end of grant availability on 30 June 2011, 41 states had received modernization payments for having an ABP, and 36 of these states also received the remaining two-thirds of their available funds. However, since then some states have repealed some or all of the expansions of UI eligibility adopted to qualify for modernization payments.[22]

Toward an EUBS

In this section we provide background on existing UI programmes in European Union Member States. We also discuss current proposals for the design of an EUBS, as well as the main concerns that have been raised by academics, policy-makers and social partners about such a multinational system.

Background on unemployment insurance in EU Member States

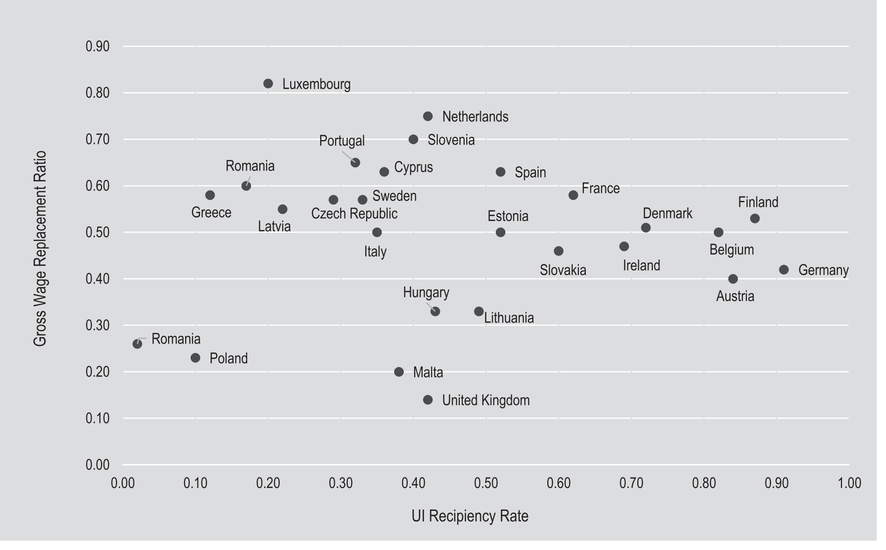
The onset of the 2008 global financial crisis quickly focused European policy-makers on UI (Beblavý and Lenaerts, 2017). Interest in UI redoubled during the eurozone debt crisis of 2010. It became clear to many observers that the national policy instruments to prevent or absorb economic shocks were insufficient for dealing with the crisis and its consequences. Countries in the EMU were unable to overcome the constraints of being in a currency union, as exchange rate and price devaluations were no longer available as policy instruments. This issue was further aggravated by the lack of supranational macroeconomic policy instruments, owing to the fact that the EMU is not a fiscal union. Unemployment skyrocketed, and Member States increasingly struggled to pay off or refinance their government debts. In an attempt to reduce costs, several Member States scaled back their UI systems, for example by tightening eligibility rules or by reducing the duration or level of benefits.[23]

The starting point for a European unemployment benefits scheme is very different from that in the United States (Beblavý and Lenaerts, 2017). All EU Member States have unemployment benefits schemes, though some of these schemes are (much) more developed than others. In the EU, introducing an EUBS would require adding a supranational layer on top of the already existing national schemes (that may fully or partially replace the existing national schemes).

22. For example, in 2013, Tennessee repealed a UI dependents' allowance that was included in state legislation signed into law on 25 June 2009. In 2009, the US Department of Labor issued Tennessee a USD 47.3 million payment for having an ABP and USD 94.5 million for having a dependents' allowance and permitting UI eligibility for claimants who customarily held part-time jobs.
23. Spain, for example, reduced the replacement rate in 2012.

Like in the US states, EU Member States' unemployment benefits schemes have changed over time to adapt to the economic, cultural and institutional circumstances of each Member State. Thus, the existing schemes are highly diverse, in terms of their design, interlinkages with other (segments of) social insurance schemes and objectives, among other features. As a result, imposing minimum standards to be met by all national schemes should be expected to present major challenges in the EU context. For example, the benefit amount is usually determined on the basis of a replacement rate, reference wage, and maximum (sometimes other factors are considered, such as household composition or unemployment duration), but four countries – Ireland, Malta, Poland, and the United Kingdom – offer flat-rate benefits. Another example is the variation in the maximum duration of benefits, which ranges from just a few weeks to indefinite. Results of these programme differences across countries are displayed in Figure 2, which shows UI replacement ratios and recipiency rates for EU Member States. Replacement ratios are highest in Luxembourg, the Netherlands and Slovenia and lowest in Poland, Malta and the United Kingdom. Recipiency rates are highest in Germany, Finland and Austria and lowest in Greece, Poland and Romania. By summarizing the differences across countries in wage replacement and benefit recipiency, Figure 2 illuminates the wide range of national unemployment benefit systems in the EU.

Figure 2. *UI replacement ratios and recipiency rates for EU countries*



Sources: Maquet, Maestri and Thévenot (2016); Esser et al. (2013).

From the political point of view, at the EU level there is reluctance to interfere in domains that remain national responsibilities, notably labour and social policies. Additionally, while the introduction of a European unemployment benefits scheme will undoubtedly cause debate on what will happen to the existing state-level schemes, the role of the EU will also be subject to considerable discussion. Again, with regard to the latter, the vast differences in political views across the EU Member States will come into play.

Another important distinction between the United States and EU cases is that the motivations for introducing a multi-tiered UI system are different. In the EU, a two-tier unemployment benefits scheme has been discussed as an instrument to complete the EMU: a fiscal instrument that serves as an automatic, supranational stabilization mechanism that would help absorb economic shocks (European Commission, 2017c). The EUBS, as such, is inspired by the experiences of the Member States that have shown that UI schemes are effective shock absorption instruments.

Despite the challenges ahead, the idea of setting up an EUBS has received much attention recently. It has especially gained momentum following the Great Recession, when unemployment rates in Europe reached record highs. Yet, instead of establishing an EUBS, the EU's governance framework underwent several other major changes. In the beginning of the crisis, most attention centred on the financial sector, which resulted in stricter monitoring and the Outright Monetary Transactions programme of the European Central Bank.[24] At a later stage, the focus shifted to debt and investment, with the creation of the European Stability Mechanism as a prime example.[25]

Nevertheless, the debate about an EUBS has made great progress over the same period. In 2012, the so-called "Four Presidents' report", entitled "*Towards a genuine economic and monetary union*", called for an EUBS (Van Rompuy et al., 2012). This idea has been advocated especially by the then Commissioner for Employment, Social Affairs and Inclusion, László Andor. In the subsequent so-called "Five Presidents' report", the EUBS was not explicitly mentioned, but the ambition to complete the EMU by establishing a supranational automatic stabilizer was confirmed (Juncker et al., 2015). What is particularly interesting in both the "Four Presidents' report" (Van Rompuy et al., 2012) and the "Five Presidents' report" (Juncker et al., 2015) is that each refers to the policy toolbox

24. The Outright Monetary Transactions programme allows the European Central Bank to make purchases in secondary, sovereign bond markets of bonds that are issued by the Member States of the eurozone and mature in 1–3 years when a Member State asks for financial assistance. This is only done when the Member State agrees to implement specific economic measures.
25. The European Stability Mechanism is an intergovernmental organization that aims to safeguard and provide access to financial assistance programmes for EMU Member States in financial need.

of other monetary unions across the globe – most notably the United States. In completing the EMU, the EU hopes to draw lessons from the experiences of other monetary unions.

In a more recent series of high-level EU reports, the notion of a shared unemployment benefits mechanism again resurfaced. On 1 March 2017, the European Commission issued its *White paper of the future of Europe*, which outlined possible paths for the future of the EU by means of five scenarios (European Commission, 2017a). As a follow-up to the White Paper, five reports were prepared. The first report was the *Reflection paper on the social dimension of Europe*, which highlighted the rights of citizens and workers in the EU and the European Pillar of Social Rights – but it did not make reference to the EUBS (European Commission, 2017b). The *Reflection paper on the deepening of the economic and monetary union*, which was published a few months later, did touch on the topic (European Commission, 2017c); in that paper, however, the EUBS takes the form of a European unemployment reinsurance scheme that would act as a "reinsurance fund" for the national unemployment insurance systems. More specifically, it would provide support to the national schemes in times of hardship, to ensure that the takeup of benefits remains high when resources are constrained. This idea resurfaced in the speech of President-elect Ursula von der Leyen in July 2019 at the European Parliament in Strasbourg, while candidate for President of the European Commission (Von der Leyen, 2019).

Notwithstanding these recent developments, the debate on a common European unemployment benefits scheme is not new. It dates back to the 1970s, when a number of reports were published that reflected on the future of Europe and what shape this could take. One of the earliest reports to take up the idea was Marjolin et al. (1975). Around the same time, MacDougall et al. (1977) discussed the concept. After this initial episode, the debate languished until the late 1980s and early 1990s, when the topic was picked up again by Padoa-Schioppa et al. (1987) and Emerson et al. (1990). A range of proposals was put forward, but none was implemented. This lack of implementation is due to several reasons. These include the full Maastricht Treaty agenda (there were many important topics on the agenda as well as a risk that not all countries would ratify the Treaty, and an EUBS was not seen as a priority), disagreements on the size of the EU budget, and the upcoming enlargement of the Union (Beblavý, Marconi and Maselli, 2015). Perhaps even more importantly, at the time there was a widespread belief that asymmetric shocks would become rarer in a monetary union (Allard et al., 2003). As the Great Recession has clearly disproven this thesis, the issue of a supranational, automatic stabilizer and the notion that this could take the form of an EUBS are back on the agenda.

Whereas the positive economic and social effects of unemployment insurance at the Member State level have been fundamental in encouraging the debate, the US two-tier UI model has consistently served as a guiding example of how an EUBS could be designed and implemented.

Design of an EUBS

Drawing inspiration from the UI systems of the Member States and those found in other regions around the world, an EUBS could include a range of features. For example, the duration of unemployment benefit pay-outs and the replacement rate already exist in programmes at the Member State level, while other features could be unique to the supranational level. Mechanisms such as experience rating of employer taxes or benefits drawn by frequent users could be specified or regulated at the supranational level.[26]

Although different options for an EUBS have been explored in the academic and policy literature, these can generally be divided into two types: "genuine" EUBS and "equivalent" or "reinsurance" EUBS (Beblavý and Lenaerts, 2017). Genuine unemployment benefits schemes work in a similar way to the existing national schemes: they collect tax contributions directly from the individual employers, employees, or both, and pay benefits directly to the unemployed.[27] The second group, the equivalent or reinsurance schemes, in contrast, would collect and distribute funds from and to the Member State level (with the Member States expected to use these funds to support the unemployed).[28] Whereas genuine schemes would (partially) substitute for the existing national schemes, reinsurance schemes would complement them.

Both types of schemes can function continuously or become activated (triggered); although a reinsurance EUBS would probably be designed with a trigger as it would only be activated in the case of a severe economic downturn.[29] Genuine and reinsurance systems both have merits and drawbacks. For example, genuine schemes are more visible to citizens but also more difficult to implement, and the opposite is true for reinsurance schemes.

26. Experience rating of employer taxes is only applied in the US, while experience rating of benefit payments – known as a claw-back – was tried in Canada, but later repealed.
27. Genuine UI schemes can be financed through contributions from employers, employees, or both, which are determined as a percentage of the gross salary to be paid each month (Beblavý and Lenaerts, 2017).
28. Reinsurance UI schemes can be financed by means of a contribution to be paid by the Member States, for example a certain percentage of their GDP. In the study described in Beblavý and Lenaerts (2017), reinsurance schemes are financed through a start-stop mechanism: Member States pay into the EUBS until a certain amount of funds is reached (0.5 per cent of EU GDP). Then, contributions cease until the EUBS' resources decline below this cut-off level, and so on.
29. Dullien (2007), for instance, proposes a genuine EUBS with a trigger.

Regardless of the type, an EUBS would likely be designed with features similar to those in programmes of Member States. For example, it would have eligibility conditions, rules for determining benefits to be paid (e.g. duration, level, capping), financing rules, and so forth. The most comprehensive work on EUBS design is summarized by Beblavý and Lenaerts (2017) who reviewed 18 published proposals.

In that study, the level of unemployment benefits is determined on the basis of three parameters: the reference wage (i.e. the last gross monthly wage), the replacement rate (i.e. 35 per cent, 50 per cent, or 60 per cent of the reference wage), and the maximum monthly benefit amount (i.e. 50 per cent, 100 per cent, or 150 per cent of the national average wage). In general, when compared to the unemployment benefits granted by the Member States' schemes, the EUBS reviewed for this study were quite generous. Previously proposed plans differ in rules for setting benefits. For example, Dullien (2007) used a cap of 50 per cent of the national wage as a default rather than the 150 per cent in Beblavý and Lenaerts (2017). Krueger and Muller (2010) recommended using a replacement rate of 50 per cent as well. The benefit duration was set at 9 months (from the start of the fourth month until the end of the twelfth month of unemployment), with variations of 3 months (from month four to month six) and 12 months (from the first to the twelfth month of unemployment) – which is in line with the duration in most national schemes. A waiting period, however, results in a lower stabilization capacity and is not recommended (Beblavý and Lenaerts, 2017).

In the work of Beblavý and Lenaerts (2017), any unemployed individual who has worked for three out of the last twelve months (3 months out of the last 6 months, or 12 months out of the last 24 being alternatives) is eligible for EUBS benefits. Other factors that are commonly considered to determine eligibility at the Member State level, such as previous employment record, the reason for unemployment, and family status, are not taken into account for the EUBS. Dullien (2012; 2013) and Beblavý and Maselli (2014) used similar approaches. This is one of the areas in which matching the EUBS and the national schemes would be most challenging.

Considering that the EUBS would serve as a crisis intervention mechanism, the idea of allowing policy-makers to prolong the duration of EUBS benefits at times of very serious economic downturns has gained ground (Dullien, 2007; Beblavý, Gros and Maselli, 2015; Beblavý and Lenaerts, 2017). This idea is inspired by the US system of extended and emergency benefits, which proved to be highly effective in stabilization terms (Whittaker and Isaacs, 2014).

A point that has not been discussed sufficiently in the EU is what is expected of unemployed individuals receiving benefits from the EUBS, in terms of their availability for work, participation in active labour market policies and related topics. These issues are often considered to be left to the discretion of the

Member States. While it may seem surprising that such important issues are not discussed often, the reason behind this is that the EUBS topic has mostly been approached from the EU level (i.e. studies have set out to understand what the supranational level could look like and how it would function and interact with the national UI schemes).

Commonly discussed issues and concerns

Regardless of the design of an EUBS, there are a number of issues at the forefront of the academic and policy debate. These are related to permanent transfers, moral hazard, the stabilization capacity of the scheme and the scheme’s implementation (Beblavý and Lenaerts, 2017).

The risk of giving rise to permanent transfers between EU Member States is one of the main challenges to EUBS introduction. Especially politically, this is a serious cause of concern. Considering that at the height of the crisis some (mainly Southern and Eastern) Member States sought assistance from the EU and the International Monetary Fund to finance their debts, other Member State governments were reluctant to provide resources out of fear for the political backlash they might face from their own electorates. Bailing out other Member States while at the same time implementing unpopular policy measures (e.g. budget cuts) may be difficult to explain to national voters. In contrast to residents of states in the United States, many EU citizens do not have a strong European identity, but rather a national identity (e.g. results from a 2014 Eurobarometer survey suggest that 40 per cent of EU citizens do not feel European) (Eurobarometer, 2014). As a result, in the EU cross-state solidarity and redistribution may raise more difficulties than in the US case. However, the survey results obtained by Vandenbroucke et al. (2018), suggesting that a majority of EU citizens would support modest transfers between countries, shed new light on this issue.

Nevertheless, as the EUBS is an insurance mechanism, transfers between the Member States are unavoidable. However, it is often argued that long-run fiscal neutrality is needed to prevent having some Member States become permanent net contributors or recipients. From the political point of view in particular, the existence of permanent transfers would institute a barrier that is very difficult to overcome. This concern, however, can be addressed in the design of the EUBS. Mechanisms such as experience rating and claw-back[30] are helpful in this regard,

30. Experience rating is a mechanism that links pay-in to pay-out by increasing the pay-in for Member States that use the EUBS more or that have a higher probability of doing so (e.g. higher unemployment rates on average). Claw-back is a mechanism that serves a similar purpose, but achieves this ex post, i.e. when Member States start building up a deficit vis-à-vis the EUBS that surpasses a certain cut-off level. Such a mechanism requires that net receipts are paid back after a certain period, to ensure that large net transfers are compensated.

as both connect the pay-out received from the EUBS to the pay-in into the scheme. As explained in Beblavý and Lenaerts (2017), these two mechanisms are effective in achieving their objective: the simulations carried out show that no Member State would be a permanent net recipient or contributor if a sufficiently long period is considered. Moreover, an EUBS is linked to short-term rather than long-term unemployment rates (i.e. it is insurance against cyclical not structural unemployment).

Closely related to the concerns about permanent transfers and redistribution, the issue of (institutional) moral hazard has also received considerable attention at the policy level (Claeys, Darvas and Wolff, 2014; Eichhorst and Wozny, 2014). Within the EUBS framework, institutional moral hazard may occur when the financing and payment of benefits remain at the higher level (the supranational level), while the implementation and activation policies are at the lower level (the state level). In such circumstances, the behaviour of the lower level can affect outcomes at the higher level of government. In other words, Member States can attempt to "game the system" with a view to gain as many resources from the EU level as possible.[31] Similar to permanent transfers, the issue of institutional moral hazard can be tackled in the design of the EUBS. By creating a scheme with experience rating, claw-back, and/or a trigger, as well as minimum standards setting how the funds provided by the EUBS are to be spent, moral hazard problems can be reduced. Although there are many ways to address institutional moral hazard, it has to be acknowledged that a certain degree of moral hazard cannot be avoided as it is intrinsic to unemployment insurance.[32] Moreover, this risk has to be weighed against the benefits that insurance brings.

These concerns about moral hazard and permanent transfers have to be seen in relation to the stabilization capacity of the EUBS: does the scheme deliver as a macroeconomic automatic stabilizer? The answer to this question depends on the design of the scheme, which implies that any assessment of the scheme's stabilization capacity is based on assumptions of what the EUBS would look like. Since such a scheme is currently not in place, it is impossible to make any generalizations about the stabilization properties of an EUBS because it could take many different forms (Eichhorst and Wozny, 2014; Gros, 2016). In addition, the stabilization capacity of the EUBS would need to be considered along two axes: i) spatial, reallocation of resources across Member States within the same

31. Note that, in any unemployment insurance setting, there is also a risk of moral hazard at the level of the individual. This risk, however, is much less discussed in the EUBS debate, given that the national unemployment benefits schemes stay in place, at least partially (depending on the design of the EUBS). Eichhorst and Wozny (2014), moreover, suggest that the risk of individual moral hazard is reduced at the time of a crisis, when the EUBS would come into play.

32. Vandenbroucke et al. (2016) provide a series of case studies demonstrating institutional moral hazard and suggest solutions involving financial incentives like conditional funding.

time period, and ii) inter-temporal, the reallocation of resources across time (Dolls et al., 2014; Gros, 2016).[33] Again, the EUBS can be designed so that it would work on one or both of these axes, with major implications for its stabilization capacity.

Previous research has produced estimates of the stabilization properties of the EUBS. Beblavý and Lenaerts (2017) summarize the results of backward- and forward-looking simulations of 18 alternative EUBS systems. Their conclusion is that the stabilization capacity of the EUBS is quite limited because of the small scale of additional unemployment benefits in the models examined. Another major conclusion of Beblavý and Lenaerts (2017) is that reinsurance schemes have a higher stabilization capacity than genuine schemes, the reason being that reinsurance schemes are focused on crisis years and the stabilization impact is highest at the start of the downturn. Moreover, reinsurance schemes with the lowest thresholds to be activated or triggered have the largest stabilization impact on GDP.[34]

A final major discussion point relates to scheme implementation (Beblavý and Lenaerts, 2017). Considering that existing national unemployment benefits schemes are highly heterogeneous, in terms of scope, design and other features, adding a European layer, especially in the form of a genuine EUBS, would be very complicated in legal, operational and political terms.

Alternatively, it also implies that if harmonization of national unemployment benefits schemes is expected, it would require large modifications in many national schemes. Such harmonization would therefore pose major challenges. Yet, harmonization is important to secure the stabilization capacity of the scheme. A harmonization of the national schemes becomes more complex, the more different the former are from the European scheme. Furthermore, an unemployment insurance scheme also interacts with other dimensions of labour and social policies, which raises questions about how to handle such interactions. In political terms, harmonization would lead to restrictions at the Member State level as to how the national schemes would need to be designed and managed, as well as present accountability issues.

Another aspect of implementation relates to the role of the social partners. In most EU Member States, the social partners are heavily involved in the design and management of the national unemployment benefits schemes (NUBS). For example, employer representatives and trade unions can be involved in the monitoring of the NUBS or take part in discussions about its features. In some

33. Next to these two axes or channels, an EUBS could enhance existing national unemployment insurance schemes, in that way encouraging their counter-cyclicality (Beblavý and Lenaerts, 2017).
34. There are many approaches as to how this trigger can be modelled. While generally the trigger and threshold are determined on the basis of the unemployment rates, Eichhorst and Wozny (2014) propose a model with a trigger linked to interest rates.

cases, for example Belgium, trade unions co-manage the NUBS and can pay out unemployment benefits to their members. Moreover, in most Member States, the social partners are involved in wage setting through collective bargaining. Ensuring the involvement of the EU level and national level social partners in the EUBS is, therefore, essential. What is interesting about the position of the social partners is that they are critical of the idea of introducing an EUBS and, particularly at the national level, have often rejected it altogether. There are a variety of reasons for this, from concerns about workers' rights to adequate social protection to a fear of losing bargaining power. Whatever the reasons, getting the social partners on board is an important precondition for an EUBS.

Lessons for an EUBS

The United States has more than 80 years of experience operating a multi-tiered unemployment insurance system. As the EU considers developing its own multi-tiered unemployment insurance system, the US experience offers some useful insights for the EU to consider. The following is a discussion of possibilities.

Gradual development

The current US multi-tiered system differs significantly from the structure in the 1930s. This is not surprising, of course, given the changes over time in technology, the economy and the labour force. Indeed, if anything, we are surprised at how little the system has changed. Two areas where the system has improved are discussed below: the federal rules for state conformity and federal support for states to engage in activities to monitor claimant work-search activity. In addition, states themselves have modified their systems by adjusting benefit amounts, potential durations and benefit financing systems.

As described above, states are required to meet certain requirements for their UI system to be considered in conformity with federal law. Employers in states that fail to be in conformity do not receive the 90 per cent FUTA tax reduction, and the state does not receive federal payments for administrating the state UI system; thus, the conformity provisions include substantial financial pressures for states to meet them. The original UI legislation included 12 conformity provisions, and additional requirements have been added over time. The most recent additions have included federal eligibility requirements for extended benefits, requirements for states to establish profiling systems to identify and serve claimants likely to exhaust their benefits, and requirements for states to establish systems allowing beneficiaries to choose federal income-tax withholding.

Another example of gradual change in the US system regards enhanced efforts to control UI benefit expenses through increased monitoring of job search and the provision of reemployment services. Efforts in this area have included both mandatory and voluntary activities. In 1993, states were required to develop and implement Worker Profiling and Reemployment Services (WPRS) systems, which included the use of statistical profiling models to identify claimants likely to exhaust benefits, who were then targeted for mandatory reemployment services. In 2005, the Reemployment and Eligibility Assessment (REA) programme was made available to states on a voluntary basis to provide a combination of enforcement actions (eligibility assessment) and reemployment services. The programme started with 20 states in 2005, and it has grown to cover nearly all states. In 2015, the programme was renamed Reemployment Services and Eligibility Assessments (RESEA), and since the 2017 federal Tax Cuts and Jobs Act all states and other eligible entities now receive RESEA grants. Under RESEA, states are encouraged to use their WPRS statistical models to target RESEA services on those predicted to be most likely to exhaust benefits.

Approaches to encouraging lower-tier behaviour

Much of the concern in a multi-tiered system involves principal-agent problems – efforts by the higher-level entity (the federal government) to get the lower tier (the states) to behave in accordance with the higher tier's wishes. The UI system in the United States has made use of a variety of approaches to influence state behaviour: mandates, discretionary grants and universal grants. The addition, as a conformity requirement in 1993, of worker profiling and mandatory services to claimants most likely to exhaust illustrates the introduction of mandated federal requirements. The provision of reemployment services (RES) grants during the Great Recession illustrates universal grants, and the current Reemployment Services and Eligibility Assessments (RESEA) grants programme illustrates the use of discretionary grants.

All three approaches can be effective, but they have different pros and cons. Mandating certain behaviour is least expensive to the higher tier but may not be politically feasible, particularly if the lower-tier members have sovereignty and different preferences for policies. The universal funding approach is generally effective in getting the lower-tier members to implement the policy, but the cost to the higher tier is much greater. Finally, the voluntary approach is intermediate in terms of cost to the higher tier, but participation by the lower tier may be limited. This slower response can be advantageous, as in the case of REA/RESEA, where gradual implementation permitted states to try different approaches, and evaluations were conducted to provide more information on the effectiveness of REA/RESEA.

Financing provisions

The financing of the US system is complex, and the structure has both advantages and disadvantages that should be considered by the EU. As was described above, funds for the UI programme in the United States are primarily raised through federal and state payroll taxes on employers; the funds are sent to the federal government and most of the money is returned to states that meet conformity requirements. Funds for state administrative functions are financed from the 10 per cent federal reserve of FUTA tax revenues. The US approach to UI financing may not be the right strategy for the EU, but it offers some interesting options, which are discussed below.

Payroll taxes have some attractive features for financing unemployment insurance. First, the payroll tax base corresponds well to the benefit principle of taxation, where those who benefit from a government service pay for the service.[35] Second, permitting each state to set its own tax structure permits states to determine how generous their UI system should be, while making states bear the consequences of the generosity of their UI benefits. Third, the procedure of relieving employers of 90 per cent of the federal tax for conformity gives the federal government considerable leverage over the design of state programmes – employers in states out of conformity would be subject to a payroll tax of 6.0 per cent rather than 0.6 per cent for the FUTA tax. The conformity requirement that states must use experience rating to set any employer's state UI tax rate below the FUTA level is an attractive financing feature, as it gives employers an incentive to make sure that claimants are in compliance with the separation requirements for UI eligibility. One essential principle is to balance benefits and financing. For example, if the maximum benefit amount is indexed to average earnings, then taxable wages should be indexed in a similar way to earnings. This principle of balancing system revenues and expenses should ensure fiscal integrity over business cycles.

There are, however, some financing features of the UI financing structure in the United States that the EU may not find appealing. For example, the FUTA tax base is only USD 7,000, making the tax regressive and providing an incentive for employers to favour high-wage workers in hiring decisions;[36] the low tax base can be justified, at least in part, because UI benefits are not based on all earnings – a sizable proportion of workers earn more than the UI taxable wage maximum.

35. Employers benefit from having UI for their employees. In the US, employers directly pay all taxes in all but three states. Research suggests that workers indirectly pay UI taxes by receiving wages that are lower than they otherwise would be (Anderson and Meyer, 2006).
36. Another regressive feature of the US system is that the UI taxes are applied to the "person-job." Thus, a low-wage worker who holds two jobs would have more UI taxes paid in by employers for them than would a person with a higher wage rate but a single employer.

Another unusual feature of the US financing system is that the revenues are obtained through state taxes on employers, which then become part of the federal budget and are rebated to the states. This approach complicates the system and perhaps gives the false impression that the taxes raised by the states are federal in nature; an advantage of the current system is that it makes administration of the trust funds similar across states and facilitates the federal government's ability to make loans to states whose trust-fund reserves are inadequate. A final feature of the US financing system that the EU may find troubling is that state administrative costs are distributed to states based on historical cost experience; this approach creates a moral hazard whereby states can increase employee salaries and UI services without bearing the full cost.

Variations in state provisions

The UI system in the United States permits large variations in state provisions regarding features on the benefits side, such as monetary and non-monetary eligibility, work test enforcement, benefit size and benefit duration. The EU might wish to consider the advantages and disadvantages of permitting such large differences. On the tax side, there are variations in the tax base, experience rating systems, and earnings subject to the state payroll tax. There also is a very large range in weekly benefit amounts, with the most generous state having maximum weekly benefits four times as high as the lowest state. On the tax side, the payroll tax base in 2019 was as low as USD 7,000 annually in five states and as high as USD 52,700 in one state. Tax rates within states vary across employers, these being directly related to recent layoff experience. Across states, the individual employer rates range from zero in many states up to 14.37 per cent in one state in 2019.

Does it make sense to permit such large variation in taxes and benefits? The United States historically has allowed states to vary the generosity of assistance programmes; for example, in 2018, the range in state benefits for the Temporary Assistance for Needy Families (TANF) welfare programme for a family of three ranged from USD 170 per month in Mississippi to USD 1,039 in New Hampshire.[37] Large variations in assistance programmes might encourage migration to high-payment states. The decision on whether to permit large variations in benefits depends on many factors, including sovereignty of the second-tier entities as well as the extent to which the programme is centrally funded.

37. TANF monthly benefit data are from the Center on Budget and Policy Priorities, as of July 2018.

Redistribution issues

The redistribution of funds raised can occur within states and across states in the US system. The UI system includes little redistribution across states, as funds raised for UI benefits all come from employers within the state. The exception is for state administrative expenses, where funds are distributed based on historical state experience in staffing and salaries. Within states, there is a greater possibility for redistribution among employers, depending on how well a state's experience rating system corresponds to an employer's experience in laying off workers.

The advantage of the US approach is that each state decides how generous its benefits should be, but the state must be willing to raise enough funding to pay for the benefits. In contrast, the US welfare system includes a substantial amount of redistribution, where wealthier states are required to pay a greater share of programme costs than poorer states.[38] A system with substantial redistribution introduces the possibility of "institutional moral hazard," where the second-tier entities have an incentive to provide more benefits than they would be willing to pay for (Vandenbroucke et al., 2016). The EU may wish to have some degree of redistribution – if not, the current system of independent national systems could be maintained.

Crisis intervention

The United States has established two types of programmes to deal with periods of very high unemployment. The extended benefits (EB) programme has been in place since 1970; however, it has not been a functioning programme in any significant way since 1980. The idea behind the EB programme is to have a permanent programme in place that automatically goes into effect when there is unusually high unemployment. In practice, the EB programme has proven to be politically unsustainable. It has been overwhelmed by a discretionary approach that is often used in times of generally high unemployment – i.e. enacting special legislation at the federal level to pay for longer-duration benefits. In the United States, these programmes have typically been financed entirely by the federal government, which possibly explains why states have set the parameters of their EB programmes so that they are never triggered.

38. The relationship between federal contributions and state income was clearer before 1997, when the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) froze the federal contribution to the welfare programme, TANF, as a block grant. Also, states with lower incomes tend to have lower benefits.

The United States has opted to finance the temporary programmes with general revenues. Given that most states have balanced-budget requirements and the federal government does not, it would be difficult for states to mount new UI programmes during a severe recession – a period when state government revenues are stagnant. The EU should consider whether crisis interventions should be implemented in advance – as the EB programme in the United States is intended to operate – in an automatic way as crises develop, or as the US temporary discretionary EUC-type programmes have operated. Other issues to consider include which level or levels of taxation should pay for the programme, what the triggering mechanisms would be for EB and whether the crisis programmes should involve changes in the definition of suitable work.

Summary and conclusion

Although there is currently no European unemployment insurance scheme, the EUBS, as a reinsurance scheme backing up the national unemployment benefit systems at times of severe economic crisis, is being given serious consideration as a potential stabilizer by EU level policy-makers (Dullien et al., 2017; Vandenbroucke et al., 2018; Schmid, 2019). This scheme would offer emergency additional benefits to benefit exhausters in crisis periods. For such a scheme to function well, each Member State must maintain an adequate regular unemployment insurance scheme that provides adequate wage replacement and pays the costs for its national system. These are modest prerequisites to avoid permanent net transfers from some Member States to others and are necessary for the political viability of the scheme. While any risk-sharing scheme would be characterized by net contributors and net beneficiaries in the short run, a scheme that results in long-term imbalances does not appear viable from a political economy perspective. In this regard, the EUBS could draw lessons from how the federal unemployment insurance system interacts with and sets guidelines for the state schemes in the United States. Institutional moral hazard has been much discussed in the European context. Several simulations, however, show that it is possible to avoid permanent transfers between EU Member States by introducing experience rating and/or claw-back mechanisms.

Drawing on the lessons from the federal-state UI system in the US, and on the recent proposals for a European reinsurance scheme, it is clear that such an EUBS should be gradually introduced and allow for further fine-tuning and modifications over time. This notion is echoed by Schmid (2019), who argues that a reinsurance scheme could be set up first and subsequently transformed into a genuine system when labour markets are unified and the legal requirements and political will for a further deepening of the EU are in place. Vandenbroucke et al. (2018) and Schmid (2019) have further indicated that an unemployment reinsurance scheme could be a key stepping stone toward a European Social Union or a more fully-fledged "employment insurance" scheme that would support labour market transitions more generally. A measured approach focusing on reinsurance in the short-run and a more ambitious long-term scheme appears to be a practical strategy.

Strategies to deal with periods of very high unemployment or a prolonged duration of a crisis should be included if the EUBS is to function as a reinsurance scheme. The US experience with emergency unemployment compensation schemes show that this strategy can work well in such cases. Several authors have suggested that such emergency provisions should be set up to go into force automatically when unemployment thresholds are crossed, instead of simply being discretionary programmes available for European Commission action in periods of high unemployment or a prolonged crisis. The argument is that it would be very difficult to reach a timely political agreement among EU Member States in a crisis period. Particularly when decisions have to be made unanimously or with two-thirds majority, and labour market impacts could be unevenly dispersed across EU Member States.

Proposals regarding the funding of the EUBS have suggested collecting and distributing funds from and to Member State governments, rather than from individual employers and/or workers as is the case in the United States. The US unemployment insurance system permits large variations in state provisions regarding features on both the benefits and taxation sides. An EUBS set up as a reinsurance scheme could leave substantial national flexibility, while at the same time guaranteeing equal treatment of citizens in Member States.

As the European economy is again experiencing growth and unemployment rates are declining, the time could be right to introduce an EUBS. The newly elected President of the European Commission has once more put this idea on the policy agenda. Vandenbroucke et al. (2018) additionally report that a majority of the EU population is in favour of European unemployment risk-sharing. Although the future of any EUBS ultimately lies in the hands of the Member States, the debate can build on a wider evidence base than previously, taking into account the knowledge gathered on the EU context as well as the lessons from other two-tier systems such as the US unemployment insurance system.

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Expanding social health protection in Cambodia: An assessment of the current coverage potential and gaps, and social equity considerations

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Abstract The Royal Government of Cambodia recently launched its National Social Protection Policy framework to strengthen and expand social security and assistance. To

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inform social health protection policy, we examine socio-economic survey data and administrative coverage data to assess the coverage potential of existing coverage mechanisms and current gaps; and compare equitable contribution rates. Over 53 per cent of the population currently has no social health protection coverage mechanism, and about 16 per cent of the population who do have access to a mechanism are not yet enrolled. Current expansion efforts focus on the formal employee scheme, primarily benefiting individuals from higher income households. In addition, recent coverage expansion to some informal workers leaves significant gaps, particularly among the informal sector. We find out-of-pocket health care expenditure to be an excessive share of income among lower wealth quintile individuals and conclude they are financially vulnerable. Finally, we illustrate that an equitable approach to individual, monthly health care contributions among the lower three quintiles has a severely limited potential for revenue generation, and collection costs could exceed the amount collected. Therefore, we recommend that vulnerable groups should be exempted from contribution payments as social health protection is expanded.

Keywords social protection, health policy, health insurance, universal benefit scheme, informal sector, Cambodia

Introduction

The global development agenda is increasingly focused on expanding social health protection to alleviate poverty, vulnerability and inequality. In 2012, the International Labour Conference adopted the Recommendation concerning National Floors of Social Protection, 2012 (No. 202), to establish that, as a minimum, "all in need have access to essential health care and basic income security". In 2015, the United Nations General Assembly adopted the 2030 Sustainable Development Goals (SDG). Goal 1, End poverty in all its forms everywhere, calls for implementation of "nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable". Goal 3, Good health and well-being, calls for the achievement of "universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all".[1] More specifically, universal health coverage (UHC) implies that there is equitable access and use of quality services by all those who need them (SEARO, 2019). Monitoring progress towards the achievement of UHC, including equity-oriented monitoring, is important to ensure an increased and continuing focus to reach the ambitious SDG targets (Barreto et al., 2014; Hosseinpoor et al., 2014; Ng et al., 2014; Mtei, Makawia and Masanja, 2014; Saksena, Hsu and Evans, 2014).

Cambodia has experienced more than two decades of strong economic growth with an average rate of 7.7 per cent for 1995–2017 (World Bank, 2018). In June 2016, the country was reclassified from a low-income to a lower-middle-income economy (Ly, 2016). In 2017, gross national income (GNI) per capita reached 1,230 US dollars (USD) (World Bank, 2018). Despite this progress, the World Bank estimates that around 4.5 million people, or nearly 28 per cent of the population remain near-poor and vulnerable to falling back into poverty when exposed to economic and other shocks (World Bank, 2018). Vulnerability to poverty has increased as a large proportion of the population is concentrated at the bottom of the wealth distribution (ADB, 2014; OECD, 2017).

The Royal Government of Cambodia (RGC) has established the reduction of poverty, vulnerability and inequality as explicit policy goals in its National Social Protection Policy (NSPP) framework 2016–2025 (RGC, 2017). Aligning with the United Nations SDGs, the framework's strategy aims to protect all citizens and includes the development and expansion of health coverage schemes to achieve UHC. The Cambodian Ministry of Health (MOH) estimates that the existing health coverage schemes may collectively cover about 4.7 million Cambodians or 30 per cent of the population. The MOH aims to increase coverage to 50 per cent of the population by 2020 (MOH, 2016).

Presently, the Cambodian social health protection landscape includes insurance for civil servants and formally employed workers, as well as social assistance with the Health Equity Fund (HEF) for the poorest of the poor. The National Social Security Fund (NSSF), under the Ministry of Labour and Vocational Training, manages the civil servants' and formally employed workers' schemes. The NSSF is rapidly expanding enrolment in the formal employee scheme. The number of people covered increased from 265,761 in 2016 to 608,965 in 2017, and in April 2019 the scheme had more than 1,712,000 people enrolled. The contribution rate is set at 2.6 per cent of the employee's salary. Currently, contributions are paid by the employer only, thus minimizing the administrative and logistical burden of contribution collection. The contribution for the civil

1. See *About the Sustainable Development Goals.*

servants' scheme is 1 per cent of salary, paid by the State. These schemes do not presently include family members.

The Health Equity Fund (HEF), established to provide free access to health care for the poorest, is operated by the Ministry of Health (MOH), but with claims and payment verification under the responsibility of a semi-autonomous Payment Certification Agency. Eligibility is primarily determined at the household level through a pre-identification IDPoor[2] programme, operated by the Ministry of Planning using community-based proxy means testing; pre-identification accounts for about 92 per cent of enrolment. This system is complemented with a post-identification system enabling enrolment at the point of service delivery; post-identification accounts for the remaining 8 per cent of enrolment. Since 2017, approximately 2.6 million household members have been covered under the HEF, representing about 80.9 per cent of the poorest wealth quintile (assuming that all current beneficiaries are in the poorest wealth quintile) or 16.1 per cent of the total population. More recently, free benefits under the HEF have been extended to some informal workers and selected populations (see below). However, there are large segments of the population that presently have no social health protection mechanism.

Health Equity Fund extensions

In late 2017, the RGC issued Regulation 404, a joint legal directive expanding eligibility to coverage under the HEF to some informal workers. This regulation aimed to extend health coverage to approximately 2 million informal workers defined as individuals with a signed employment contract for work of not more than eight hours a week, part-time, casual or seasonal. Coverage under this directive requires that the individual has completed a registration process with the NSSF. In addition, special category beneficiaries are deemed eligible under other directives issued by the Ministry of Labour and Vocational Training (December 2017), Ministry of Health (January 2018) and the Council of Ministers (February 2019). Beneficiaries under these HEF extensions include commune council members, village chiefs, deputy village chiefs, professional sport practitioners, association members, and People Living with HIV (PLHIV).

Towards Universal Health Coverage (UHC)

Many low- and middle-income countries have adopted health financing reforms over recent decades with the intention of achieving UHC and equity in the financing of health care delivery (Asante et al., 2016). The NSPP framework's

2. IDPoor: Identification of Poor Households Programme.

stated focus on poor and vulnerable populations establishes a clear policy directive for Cambodia's expansion prioritization.

Vulnerability is defined as the potential of harm occurring due to risk exposure and the inability to manage risks and shocks (Alwang, Siegel and Jørgensen, 2001).[3] Vulnerability is most commonly understood as financial vulnerability. However, income and assets are only one aspect of the various complex dynamics of human well-being (Mechanic and Tanner, 2007; Edstrom, 2007).

Vulnerability is multi-dimensional with risks relating to economic exclusion (financial), social exclusion and marginalization (societal), emotional disaffection (personal), discrimination (institutional), and health status (biological). These dimensions generally overlap: compounding the overall vulnerability of an individual, and thus their household (Luchenski et al., 2017; Bradshaw and Finch, 2003). These factors directly or indirectly affect the quality of life, especially income and assets. As such, each risk dimension can exasperate vulnerability by affecting an individual, and therefore their household's ability to cope with stressors and shocks, potentially undermining their economic security. For these reasons, the poorest, children younger than age 5, pregnant women, PLHIV, people with tuberculosis (TB), the disabled, and the elderly are also considered vulnerable (ADB, 2014). Among these vulnerable groups, only the poorest of the poor, and (more recently) PLHIV, currently have a health care coverage mechanism. Finally, beyond the poorest, there is no consensus in Cambodia concerning who is considered financially vulnerable, and therefore who should be provided with free access to health care under the HEF.

The NSPP framework envisions the implementation of a health scheme for the non-poor informal sector. Fairness in health care financial contributions is a central health system goal and a paramount consideration for the expansion of social health protection (Murray et al., 2002). Social equity and solidarity are fundamental principles of the NSPP framework (RGC, 2017). For health care financial contributions to be fair, households should not become impoverished or pay an excessive share of their income to obtain health care; and, lower income households should pay less towards the health system than higher income households (Murray and Frenk, 1999). Equity in health care financing can be characterized as vertical (financial contribution proportional to capacity to pay) and horizontal (those with the same capacity to pay making the same contribution) (Wagstaff and van Doorslaer, 2000; Murray et al., 2002; O'Donnell et al., 2008). Vertical equity focuses on progressivity whereby health care contributions, as a proportion of income, rise as income increases (Amporfu, 2013). Vertical equity can be assessed by the degree of inequality in

3. See Vulnerability Assessment and Analysis, Food and Agriculture Organization of the United Nations (FAO) E-learning Centre.

paying for health care when considering individuals' unequal ability to pay (O'Donnell et al., 2008; Van Doorslaer, Wagstaff and Rutten, 1993). In this article, we focus on vertical equity.

To plan for the expansion of social health protection it is imperative to understand the coverage potential of the current mechanisms, estimate the gaps vis-à-vis policy goals, and assess a fair and equitable approach to contributions within the current context. Decision-makers may ask a number of questions, among which: How many people do not yet have a coverage mechanism? Who is benefiting the most from the current expansion efforts focused on formal employees? How many informal workers are already eligible for coverage under the recent Health Equity Fund extensions? What would be an equitable approach to determining contributions?

To answer these questions and inform policy-makers on the expansion of health insurance in Cambodia we assess legal and effective coverage gaps, estimate vulnerable population and employment group sizes, review the poverty profile with a focus on the second and third wealth quintiles, and assess potential beneficiary contribution amounts using four approaches.

Data, methods and limitations

Data

We analysed the 2016 Cambodia Socioeconomic Survey (CSES) data set provided by the Ministry of Planning's National Institute of Statistics. This survey is a nationwide representative sample that includes questions asked about the household and individual household members. The 2016 data set contains records for 3,676 households with 10,746 individual working-age adults.

Data was adjusted ("winsorized") to bring income values below the first percentile to the first percentile and income values above the 97.5th percentile to the 97.5th percentile. This adjustment (winsorization) limits the influence of extreme outliers in the analysis (Ghosh and Vogt, 2012).

We adjusted the daily per capita international poverty line (USD 1.90) and the lower middle-income class poverty line (USD 3.20) using the 2016 Cambodia Purchasing Power Parity (PPP) conversion factor for private consumption.[4,5] These poverty metrics were used as benchmarks for the wealth comparison.

Capacity to pay is defined as an individual's effective income net subsistence expenditure (Murray et al., 2002; Xu, et al., 2003).

4. See World Bank FAQs: Global poverty line update.
5. $1 PPP = 1,643.3 Cambodian riel (KHR). Local currency figures were converted to USD using the standard Cambodia Socioeconomic Survey exchange rate of KHR 4,100 = USD 1.

The average monthly NSSF contribution rate is based on 2.6%*170 US dollar per month minimum wage for garment workers (USD 4.79 per person per month), and the regulatory salary ceiling for contribution collection of 1 million Cambodian riel (KHR) or 2.6%*244 US dollar (USD 6.87 per month per person per month).

Vulnerability group sizes for pregnant women and persons who are physically disabled[6] were estimated by applying 2014 Demographic Health Survey proportions for those groups to 2019 population projections (NIS, 2017b). Vulnerable age groups (i.e. children younger than age five, and seniors aged 60+) were taken directly from 2019 population projections. Elderly are defined as people aged 60+ because there is Cambodia-specific evidence indicating households with people older than age 59 are very vulnerable to out-of-pocket (OOP) health care expenditures (Jacobs, de Groot and Fernandez Antunes, 2016). Estimates for PLHIV and people with TB were sourced from the World Health Organization Global Health Observatory[7] and the *Yale Global Health Review* (*YGHR*, 2015), respectively. We used Stata 15.1 for all data management and analysis.

Employment group classification

We reviewed the CSES master survey questionnaire to establish inclusion criteria to identify employment groups among working-age adults (aged 15–59). To the degree possible, employment groups were defined to correspond to health scheme coverage eligibility. Individuals were assigned to one of eight employment groups: two formal sector groups (private and public workers); four informal sector groups (part-time, seasonal, farmers and fishery workers, and self-employed); not-active adults; and employers. Categorization followed the inclusion/exclusion criteria detailed in Table 1.

There are four informal groups: part-time, seasonal, farmers, and self-employed. A part-time worker is defined as any employee who reported working more than zero hours, but less than 40 hours per week.[8] Casual workers are generally defined as employees with no guaranteed hours of work. As casual workers cannot be differentiated in the CSES data, we do not present them as a separate group. We adopt the CSES definition of seasonal work, which is the report of work done during only part of the year with that same job reoccurring every year. Finally, we consider farmers and fishery workers (hereafter referred to

6. Physical disability is determined as an assessed great difficulty or inability to see, hear, walk, concentrate, self-care, or communicate.

7. See World Health Organization Global Health Observatory data.

8. Due to the limited number of working-age adults self-reporting as an employee and working less than 8 hours in the past week, we collapsed this category into “part-time”.

Table 1. *Employment group inclusion and exclusion criteria among working age adults*

Employment group	Exclusion/inclusion criteria
Public sector	Individuals reporting government employment including civil servants and commune/ village chiefs/administrators
Employees	Individuals reporting any non-government employment and working at least 40 hours in the past seven days
Farmers (and fishery workers)	Individuals who identified that the farm or fish products they produced in the last seven days in their main economic activity was mainly or only for sale
Self-employed	Individuals reporting their main occupation or economic activity as working on their own account, as an unpaid family worker, or other, and reporting working hours during the past week, exempting farmers as defined here
Part-time workers	Individuals reporting being an employee and working less than 40 hours in the past seven days
Seasonal employees	Individuals who identified their current or previous employment (within the past 13 months) as seasonal. Seasonal work is work done part of the year but the same job is reoccurring every year. As per the CSES, examples of seasonal work include construction, tourism, and salt field workers
Non-active/unemployed	Individuals who had no report of a main occupation or economic activity, or reported working on their own account, as an unpaid family worker, or other, but did not report working any hours in the previous seven days and did not identify their most recent employment as seasonal.
Employers	Individuals who identified as such; these individuals were excluded from further analysis as they are not the focus of this study and are small in number (<1% of respondents).

Source: Adapted from the 2016 CSES definitions.

only as farmers) and the self-employed as separate informal-sector employment groups.

Methods

Household survey consumption expenditure data is generally considered more reliable than income data. This is attributed to a variety of factors including under-reporting, as respondents may not wish to reveal their true income for privacy or other reasons. In addition, income data is more vulnerable to random shocks. Therefore, over time the variance of current expenditure is smaller than the variance of current income (O'Donnell et al., 2008; Deaton and Zaidi, 2002; Xu, et al., 2003; Bouis, 1994; Deaton, 1992; NIS, 2017a). Furthermore, households may report disposable income less than zero; this is because there is no standard in Cambodia on how to depreciate expenditures for investments over time (NIS, 2017a). For these reasons, we use consumption expenditure as a proxy for effective income, particularly among the lower quintiles. All household level expenditure data was individualized (i.e. total household amount divided by the household size) to enable a direct comparison with the average NSSF contribution rate.[9]

We recognize that consumption expenditure data does not enable a fair comparison of wealth at a population level, as lower-income individuals and households expend a greater proportion of their total income compared to their higher-income counterparts. This issue is particularly problematic when analysing data with a high wealth disparity (Lakner et al., 2016). Therefore, we use total income to estimate the proportional distribution of wealth. Total income is defined as the sum of wages and salaries, self-employment and property income, as well as transfers received (net transfers such as taxes, and transfers to other households and for charity) (NIS, 2017a).

We consider a person to be financially vulnerable if an average (one-month) OOP health care expense would reduce the average monthly effective income of an individual to the poorest quintile. From the CSES survey data, we calculate the average monthly OOP health care treatment expenditure for working-age adults among those with an expenditure at USD 43.08 [95%CI: USD 19.60 – USD 66.58][10] for the second wealth quintile, and USD 46.68 [95%CI: USD 28.70 – USD 64.65] for the third wealth quintile.

We use four approaches to illustrate fair and equitable health insurance contribution rates by wealth quintile and compare these rates with the mean and median NSSF individual monthly contribution rates (USD 5.83 and USD 6.87, respectively). First, we apply the NSSF fixed contribution rate of 2.6 per cent to effective income to illustrate a proportional income-based approach. This approximates the current approach used for formal employees, albeit the employer pays the contribution. We apply this approach to the mean effective income by wealth quintile and estimate an individual monthly contribution rate (see Equation 1 in the Appendix).

Second, we apply the NSSF fixed contribution rate of 2.6 per cent to calculate the proportional share of capacity to pay (CTP), which is mean effective income for each quintile net subsistence expenditure (see Equation 2 in the Appendix). Third, we calculate a weighted NSSF rate according to the share of total income by wealth quintile (see Equation 3 in the Appendix), and apply the weighted rate to the mean effective income by wealth quintile to estimate an equitable approach (see Equation 4 in the Appendix). Fourth, we estimate equitable CTP by reducing the mean effective income for each quintile by subsistence expenditure and applying the weighted NSSF rate to CTP (see Equation 5 in the

9. This rate was not based on the actual cost of the provision of care (i.e. services reimbursed by NSSF are still subsidized by the State through the health sector).

10. A 95%CI [confidence interval] is a range of values for which one can be 95% certain contains the true mean of the population.

Appendix). Subsidence expenditure is based on $1.90 PPP per person per day, which equates to USD 0.76 per person per day for Cambodia.

Limitations

Due to limitations with the data set, it was not possible to analyse vulnerable groups (i.e. pregnant women, persons with disabilities) by wealth quintile or capacity to pay. As the source data for these estimates were not linked to the CSES data, it is not possible to segment these populations by wealth quintile.

We aligned employment categories, to the degree possible, with health coverage eligibility groups. In addition, we grouped currently non-eligible groups to create four major categories: unemployed, self-employed, farmers and fishery workers, and employers. However, we recognize there is considerable heterogeneity within each category. For example, farmers and fishery workers have different livelihoods as landownership is important for the former, and common property resources are important for the latter (Tong, 2012). As our primary focus was on identifying health care coverage gaps, a more detailed poverty analysis of sub-employment categories was considered beyond the scope of this study.

In addition, the data set did not permit the identification of different types of government workers. This would have been useful to enable the sub-analysis of civil servants who have a separate scheme, and commune council members who were covered recently under the HEF extension. We used 2019 administrative data to estimate effective coverage (i.e. people enrolled) and compare it with our legal coverage estimates.

We also note that effective income may be a misleading measure of financial well-being as it does not account for debt, which can increase consumption expenditure or decrease capacity to pay (i.e. effective income net subsistence expenditure) due to loan repayment obligations (O'Donnell et al., 2008).

Finally, this study did not assess horizontal equity. As noted above, horizontal equity can refer to people with the same ability to pay making the same contribution (Amporfu, 2013). This type of assessment was not undertaken, as this study focuses on a non-contributory scheme. In addition, for the NSSF scheme, contributions are paid entirely by the employer (2.6 per cent of salary). This minimizes the potential for variation in contribution rates vis-à-vis ability to pay. Horizontal equity can also refer to equity in access to health care services among people with the same needs. This can be assessed by comparing the utilization of care for paying and fee-exempted individuals (Schneider and Hanson, 2005). This type of assessment is beyond the scope of this study, which focuses on examining coverage and applying an equity lens when considering potential contribution rates.

Results

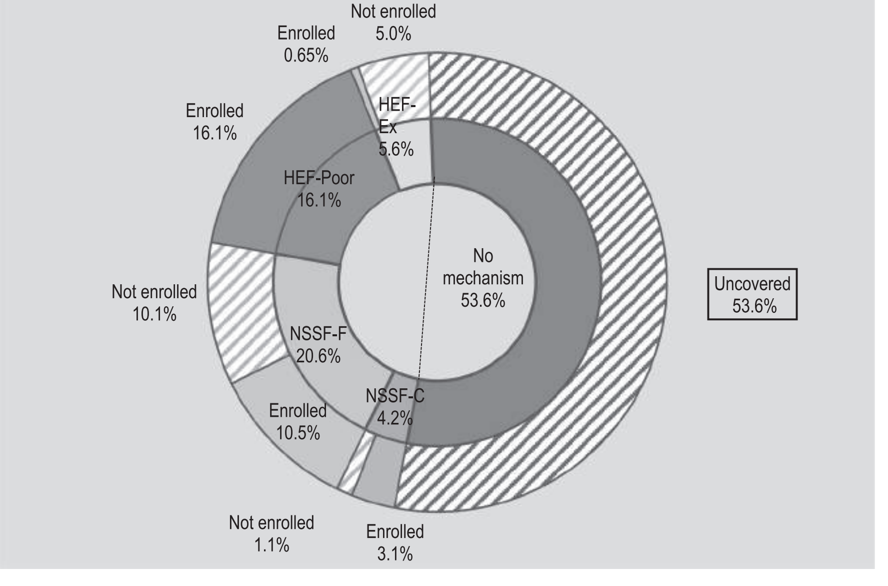
Population size estimates and coverage gaps

There is an important distinction between legal coverage, which refers to people who are legally entitled to be covered by a scheme, and effective coverage, which refers to people enrolled in the scheme. We applied population estimates and administrative enrolment data to estimate gaps in legal and effective coverage. Figure 1 shows the total estimated legal coverage (inner circle) compared to current effective coverage (outer circle) by scheme. Over 53 per cent of the population currently has no coverage mechanism, and therefore no possibility to access coverage under a government-managed scheme. In addition, more than 16 per cent of the population has a coverage mechanism but are not yet enrolled.

Vulnerable group size estimates

The vulnerable group populations, non-inclusive of the poor and financially vulnerable groups, collectively amount to 22.4 per cent of the total population or about 3.6 million people. This estimate includes about 1.6 million

Figure 1. *Legal and effective coverage estimates*



Notes: HEF-Ex = HEF Extension groups ; NSSF-F = Formal sector scheme ; NSSF-C = Civil servants' scheme.

Source: Authors' estimates using 2016 CSES data and 2019 administrative coverage statistics.

children younger than age five (10 per cent), 238,000 pregnant women (1.5 per cent), 175,000 PLHIV/TB (1.1 per cent), 312,000 people with disabilities (1.9 per cent), and 1.3 million people aged 60+ (8 per cent).

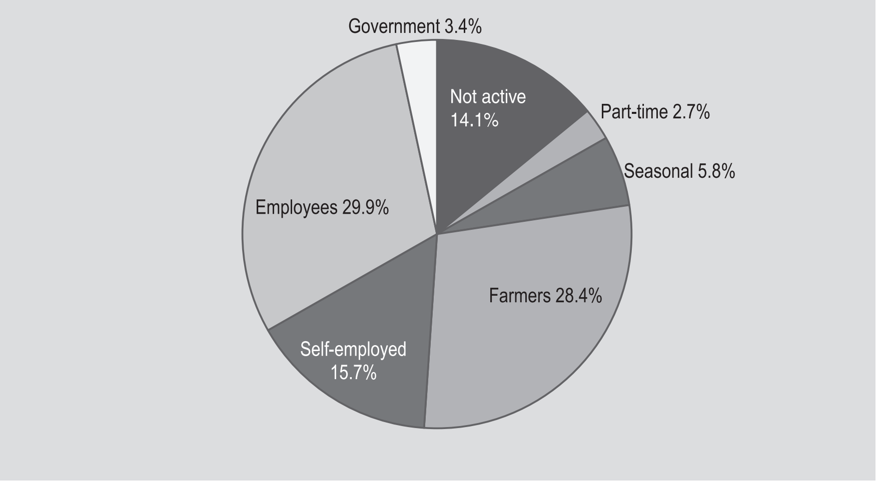
Employment group size estimates

Cambodia's population is predominately young and of working age. School-aged children (aged 5–14) represent 18.4 per cent or nearly 3 million; and working-age adults aged 15–59 represent 63.7 per cent of the total population or approximately 10.37 million adults (NIS, 2017b).

Figure 2 shows population proportion estimates among working-age adults by employment group. About 15 per cent of working-age adults are not currently working. Part-time and seasonal workers, those explicitly covered under Regulation 404, account for an estimated 8.3 per cent (about 845,000 people). Farmers (and fishery workers) constitute 26.4 per cent (2.7 million), self-employed represent 14.3 per cent (approximately 1.5 million), employees 32.3 per cent (nearly 3.3 million), and public-sector workers 3.4 per cent (approximately 344,000).

Finally, over three-quarters of Cambodia's population reside in rural areas. About 11.2 per cent of the population live in the capital city, Phnom Penh, and 12.9 per cent live in other urban centres.

Figure 2. *Employment group population proportion estimates among working-age adults*



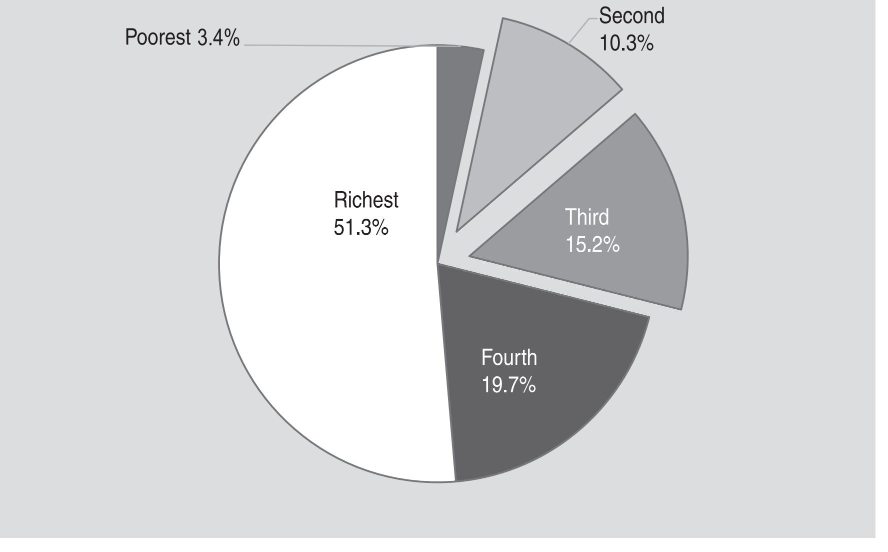
Source: Authors' estimates using 2016 CSES data.

Wealth profile by population and employment group

Figures 3 illustrates the distribution of total income by wealth quintile. The richest quintile accounts for 51.3 per cent of total income. The fourth quintile has 19.7 per cent of the total income wealth. Finally, the bottom three quintiles collectively have about 28.9 per cent of the total income: 15.2 per cent among the third quintile, 10.3 per cent among the second quintile, and 3.4 per cent among the poorest.

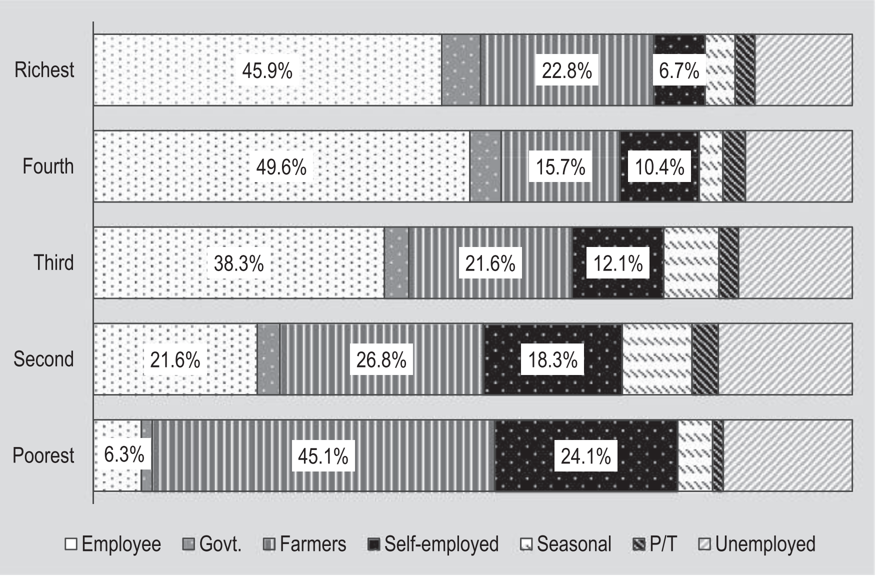
Nearly seven in ten (69.2 per cent) of the poorest are either farmers (45.1 per cent) or self-employed workers (24.1 per cent). These employment groups decrease as a proportion of adult workers as the wealth quintile increases: 45.1 per cent among the second quintile (26.8 per cent are farmers; 18.3 per cent are self-employed workers); 33.6 per cent among the middle quintile (21.6 per cent farmers; 12.1 per cent self-employed); 26.1 per cent among the fourth quintile (15.7 per cent farmers; 10.4 per cent self-employed workers); and 29.6 per cent among the rich (22.8 per cent farmers; 6.7 per cent self-employed workers). Inversely, the proportion of full-time employees increases with wealth quintile: 6.3 per cent among the poorest; 21.6 per cent among the second quintile; 38.3 per cent among the third quintile; 49.6 per cent among the fourth quintile; and 45.9 per cent among the richest (Figure 4).

Figure 3. *Proportional distribution of total income by wealth quintile*



Source: Authors' estimates from 2016 CSES.

Figure 4. *Employment category by wealth quintile among working-age adults*



Notes: Govt = Public sector; P/T = Part-time.

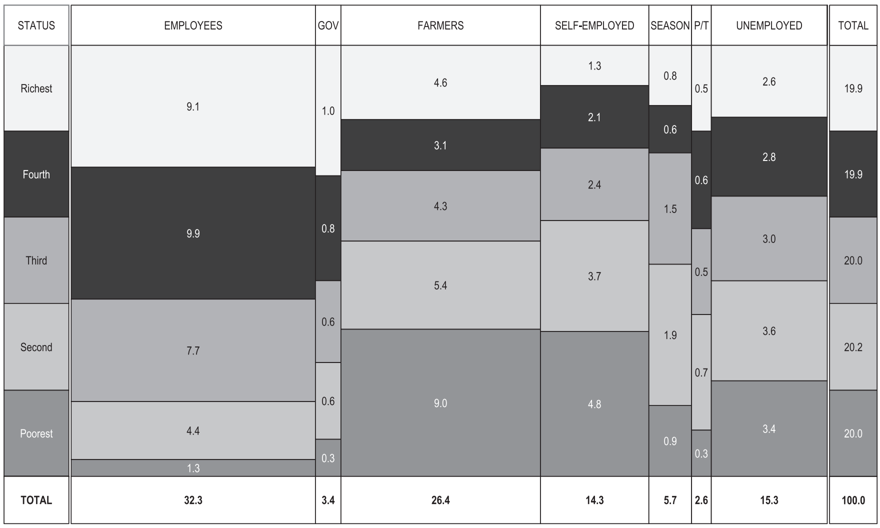
Source: Authors' estimates from 2016 CSES.

Figure 5 presents the population breakdown (in per cent) by wealth quintile and employment group among working-age adults. The height of the cell in each column corresponds to the wealth quintile proportion of the adult working-age population for each employment category; the width of the column is proportional to the total percentage of the adult working-age population in each employment group. This enables the identification of vulnerability within employment groups, particularly those who do not presently have a health insurance coverage option.

Employees, representing 32.3 per cent of working-age adults, predominately belong to higher-income quintile households. Likewise, public-sector employees tend to reside in higher-income households, while they only represent 3.4 per cent of the working-age population. By contrast, farmers and self-employed adults represent large population segments (26.4 per cent and 14.3 per cent, respectively) and are concentrated among the lower wealth quintiles. In addition, they are less wealthy than their seasonally employed and part-time counterparts who represent only 5.7 per cent and 2.6 per cent of the adult population, respectively. The unemployed are evenly distributed across wealth quintiles.

Figure 6 compares monthly individual effective income by wealth quintile. Amounts in US dollars to the left of the stacked bar chart are the income cut-off

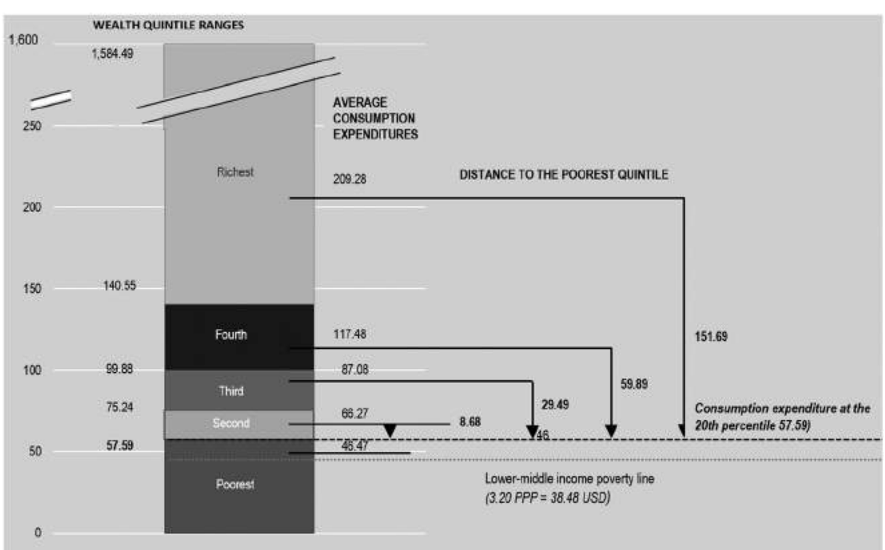
Figure 5. *Population proportions by wealth quintile and employment group among working-age adults (percentage)*



Notes: Gov = Public sector; Season = Seasonal; P/T = Part-time.

Source: Authors' estimates from 2016 CSES.

Figure 6. *Monthly individual effective income by wealth quintile with averages and differences to the poorest quintile in USD*



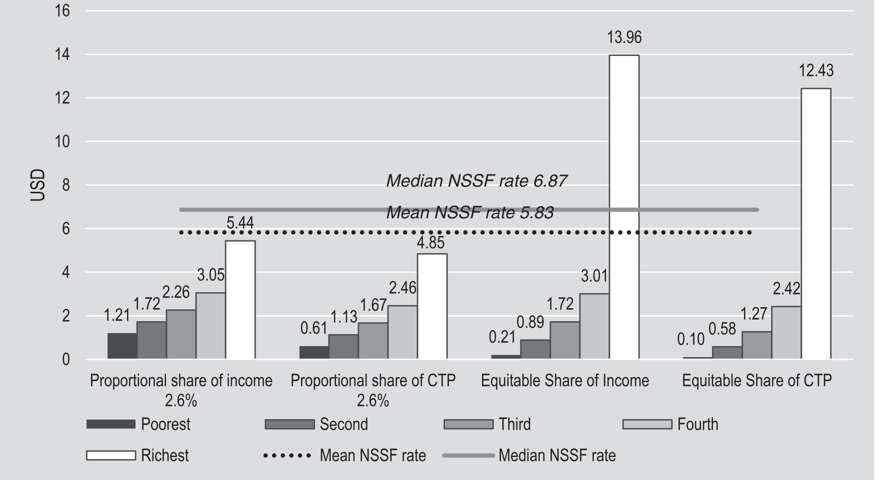
Source: Authors' estimates from 2016 CSES.

points for each wealth quintile. Amounts in US dollars to the right of the stacked bar chart are the average incomes by wealth quintile. Effective income under USD 57.59 (or USD 1.92 per day) falls under the 20th percentile or the poorest quintile (indicated with the black-dotted line). The mean monthly effective income among the poorest individuals is USD 46.47. This is slightly above the World Bank lower middle-income poverty line of $3.20 PPP, which is equal to USD 38.48 for Cambodia (indicated with the grey-dotted line).

The average effective monthly individual income for the second quintile is USD 66.27 [range USD 57.60–USD 75.24]; the third quintile is USD 87.08 [range USD 75.25–USD 99.88]; the fourth is USD 117.48 [range USD 99.89–USD 140.55]; and the richest quintile's effective income is USD 209.28 [range USD 140.56–USD 1,584.49]. Comparing the threshold for the poorest quintile with the average expenditure for other wealth quintiles reveals that the second quintile is only USD 8.68 above the poorest, and the third quintile is USD 29.49 above. As the average monthly OOP health care expense exceeds these amounts (USD 43.08 for the second wealth quintile, and USD 46.45 for the third wealth quintile), these quintiles are considered financially vulnerable. By contrast, the fourth and richest quintiles are USD 59.89 and USD 151.69 above the poorest quintile, respectively.

We assess a fair and equitable approach to contributions given the current context using four approaches (see Figure 7). First, we illustrate a proportional

Figure 7. *Proportional and equitable individual health insurance contribution estimates (monthly) by wealth quintile*



Source: Authors' estimates from 2016 CSES.

income-based approach by applying the NSSF fixed contribution rate of 2.6 per cent to effective income for each wealth quintile. This conservatively approximates the current approach used for formal workers and employees, albeit the rate is based on real income and the employer pays the contribution. We estimate an individual monthly contribution rate to assess the contribution rate, particularly among lower-income quintile households who comprise a higher proportion of informal workers. This approach results in the poorest individuals paying USD 1.21; and second and third quintile individuals' contribution rates of, on average, USD 1.72 and USD 2.26, respectively. By contrast, the fourth and richest quintile individuals pay USD 3.05 and USD 5.44, respectively.

Second, we estimate capacity to pay (CTP) by subtracting subsistence expenditure from effective income and apply the NSSF fixed contribution rate of 2.6 per cent for each wealth quintile. This results in an estimated individual monthly contribution of USD 1.13 for the second quintile, and USD 1.67 for the third quintile.

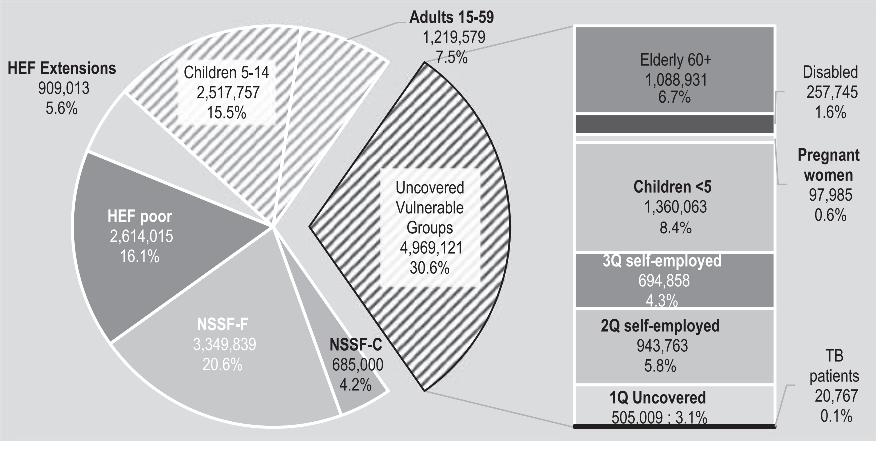
Third, we illustrate an equitable approach by weighting the NSSF rate following its proportional share of total income by wealth quintile (see Figure 2); then, we apply the weighted-rate to the average effective income by wealth quintile. This approach yields an estimated individual monthly contribution of USD 0.89 for the second quintile and USD 1.72 for the third quintile.

Fourth, to illustrate an equitable capacity to pay (CTP) approach, we adjust effective income by subtracting subsistence expenditure and apply the weighted NSSF rate. This approach results in a monthly contribution rate of just USD 0.58, on average, for second quintile individuals; and, USD 1.27, on average, for third quintile individuals.

Discussing and interpreting the results

The expansion of legal coverage and enrolment entitling all people to access health services under publicly organized schemes is a critical step towards the achievement of UHC (Knaul et al., 2012; Scheil-Adlung and Bonnet, 2011; Murray, 2009). Cambodia's social health protection system currently provides coverage mechanisms for civil servants, formal employees, the poorest of the poor, and some special populations. Current efforts to expand enrolment for formal employees has the potential to cover up to 3.3 million people. However, this coverage will primarily benefit individuals from higher income households. The HEF is estimated to provide social health protection for about 2.6 million individuals, leaving about 652,000 people in the poorest quintile without coverage, representing about 4 per cent of the total population.

Figure 8. *Gaps in legal social health protection coverage with breakdown by uncovered vulnerable group*



Sources: Authors' estimates from 2016 CSES, SEARO (2019), 2014 NIS (2016; 2017), WHO (2018) and Yale (2015).

It is important to recognize that there are multiple definitions of poor (ADB, 2014). Cambodia's most recent national poverty rate (announced in 2014) is 13.5 per cent. However, the current estimated enrolment in the HEF is 2.6 million beneficiaries, or about 16 per cent of the population.[11] The difference lies with the IDPoor Programme, which is the primary mechanism to identify HEF eligibility. This system does not apply an income eligibility threshold, rather it uses proxy means testing based on observable household characteristics and assets, and a participatory community process (White Kaba, et al., 2018). A recently completed analysis found that less than half of IDPoor cardholders are classified as poor using the national definition. However, that same study found that about 90 per cent of households targeted by the IDPoor Programme are classified as poor or under a vulnerability threshold of 1.5 times the national poverty threshold (OECD, 2017).

In addition, recent directives to expand the HEF could benefit about 910,000 special category individuals. As these are relatively small sub-groups, there are still significant coverage gaps, particularly among vulnerable groups.

Figure 8 shows total population coverage estimates and proportions by group, with a breakdown of coverage gaps for uncovered vulnerable populations. These estimates have been adjusted to account for (legal) vulnerable group coverage under existing schemes (i.e. they are non-duplicative). We estimate that about

11. Based on 2019 mid-year population projection of 16.3 million from the NIS.

8.7 million Cambodians do not yet have a social health protection mechanism – nearly five million of whom can be considered vulnerable. This amounts to 30.6 per cent of the total population.

The remaining uncovered populations of school-aged children and adults total about 23 per cent. An employment-based approach, if expanded to include the worker's household, could also mitigate this coverage gap – representing a potential opportunity to further increase enrolment by approximately 3.1 million household members.[12] More conservatively, costs could be offset by pooling funds or expanding coverage of the employer-based scheme to enrol vulnerable individuals who reside with a formal worker covered under that scheme.

In addition, farmers (26.4 per cent) and self-employed workers (14.3 per cent) are estimated to comprise about 40.7 per cent or nearly 4.2 million adults. An examination of the second and third wealth quintile households reveals that nearly half (45.1 per cent and 33.6 per cent, respectively) of these belong to farmers and self-employed workers – two employment groups with no coverage mechanism. There are about 932,500 and 686,500 farmers and self-employed workers in the second and third wealth quintiles, respectively.

In most developing economies, the middle-income groups have very low incomes, necessitating inclusion in social protection schemes (Ortiz, 2018). In Cambodia, the non-poor informal sector with capacity to pay into a contributory system is a relatively small group (OECD, 2017). To assess financial vulnerability, we compare the upper threshold for the poorest quintile with mean effective income for each other quintile. We find the average financial distance from falling into the poorest quintile for the second and third wealth quintiles is only USD 8.68 and USD 29.49 per individual per month, respectively. These amounts are insufficient to pay the average monthly OOP health care expense among working-age adults seeking care, which is estimated at USD 43.08 and USD 46.68 for the second and third wealth quintiles, respectively. Thus, we consider OOP health care cost to be an excessive share of income (O'Donnell et al., 2008; Murray and Frenk, 1999). As such, individuals within these quintiles may be considered financially vulnerable. This is consistent with a recent study by the Organisation for Economic Co-operation and Development (OECD) that found 55 per cent of Cambodian households to be either poor or vulnerable using a vulnerability line at 1.5 times the level of the national poverty line. Consequently, a relatively small income shock could dramatically raise the poverty rate (OECD, 2017).

Overall, 37 per cent of Cambodian households hold outstanding debt averaging USD 1,832. Rural areas have the highest proportion of indebted households (41.1 per cent) compared with other urban areas (37.4 per cent) and Phnom Penh (7.9 per cent), with an average outstanding loan of USD 1,645, USD 3,040, and

12. Dependency ratio = 0.95.

USD 3,128, respectively (NIS, 2017a). Related to this, there is evidence that even relatively modest OOP health expenditure is a frequent cause of indebtedness and can lead to poverty in Cambodia (Van Damme et al., 2004).

The NSPP framework envisions the implementation of a health coverage scheme for the non-poor informal sector, initially voluntarily and then made compulsory. Willingness to Pay (WTP) for voluntary health insurance contributions can limit enrolment and coverage, reducing access to health services, particularly among lower-income quintile households (Dong et al., 2005). A WTP study among informal-sector workers in Viet Nam found that nearly half (48.8 per cent) of uninsured households were willing to pay for family health insurance (Nguyen, 2018). However, WTP does not necessarily translate into enrolment in subsidized voluntary schemes. A study from Viet Nam found enrolment at baseline to be 4 per cent. Information campaigns and the offer of a subsidy only increased enrolment by 1–3.5 per cent with results suggesting that such interventions may exacerbate adverse selection (Wagstaff et al., 2015). There is strong evidence demonstrating that voluntary health insurance programmes for the non-poor informal sector have extremely low uptake (Cotlear et al., 2015). These issues can undermine equity in access to health care. In addition, there is no clear enforcement mechanism by which to ensure enrolment under a compulsory approach for the informal sector. Finally, a recently published systematic review of WTP for health insurance in low- and middle-income countries found that the WTP for health care insurance among rural households to be just below 2 per cent of GPD per capita (Nosratnejad, Rashidian and Dror, 2016). In Cambodia, 2 per cent of GPD per capita equates to USD 14.98 per year,[13] or just USD 3.48 per person per year.

Another important consideration is whether to pursue a contributory or non-contributory approach. Contributions may be levied at a flat rate. However, this is a highly regressive way of funding health care, as lower-income people will contribute a higher proportion of their income than wealthier people (Chuma, Mulupi and McIntyre, 2013). Such vertical inequity could potentially undermine public trust and the expansion of social health protection. Informal workers could easily understand that they are paying a higher proportion of their income compared to their formally employed counterparts, especially as contribution payments among the formally employed are at present fully paid by the employer.

We illustrate rational and fair individual monthly health care contribution rates using four approaches that align with the NSPP framework's fundamental principles of equity and solidarity. These approaches reflect the current formal employee scheme rate of 2.6 per cent of income, and account for individuals' unequal ability to pay (Wagstaff and van Doorslaer, 2000; O'Donnell et al.,

13. GDP per capita (constant local currency – LCU) 3,069,876/4100 = $748.75*2% = $14.98.

2008). We find that the contribution rates are low for second and third wealth quintile individuals under all four scenarios: the rate ranges are USD 0.58–USD 1.72 and USD 1.27–USD 2.26 per individual per month for the second and third quintiles, respectively. One may consider the comparative base rate of 2.6 per cent to be excessively low. However, it is unlikely that this rate will be revised in the near to medium term, as current revenue collection is generating a large fund surplus for the employee scheme. Furthermore, as social security expands, the introduction of other employer-based payments is to be expected; potentially crowding-out increases to the employee scheme rate.

Although there may be some economies of scale if households enrol multiple members, the low contribution rates raise the issue of collection feasibility and its associated costs. One of the primary challenges to extending health care coverage to informal-sector workers, particularly in developing countries, is the logistical burden and associated administrative costs of contribution collection (Wolfe et al., 2014). There is evidence that national household contribution collection programmes, especially those that are voluntary, are administratively costly and have potential for regressive effects (Lagomarsino et al., 2012). This is because they require a strong administrative mandate and systems to track ability-to-pay (Bredenkamp et al., 2015). As informal workers are dispersed occupationally and geographically, the cost of contribution collection may exceed our illustrative rational and fair contribution rates. In addition, informal workers' use of formal banking is limited (Wilwohl, 2013), and they generally do not typically pay income taxes – thwarting the potential for automated payments or deductions for contribution collection. Theoretically, mobile payments, either using airtime or mobile money, can be used to collect contributions through payment reminders and self-payments via a mobile device (Saunders and Tappendorf, 2014). However, the application of such a system is yet to be demonstrated in Cambodia.

The most logical approach to resolve these issues is to exempt contribution payments among lower wealth quintile households that do not have another coverage mechanism. However, sub-targeting or identification of these households will still be necessary and will likely present many challenges (Mills et al., 2012). To address this issue, it is important to recall that Cambodia already has a well-developed IDPoor programme to assess household wealth. The IDPoor targeting tool could be revised to facilitate identification of lower-income quintile households for HEF enrolment.

Wagstaff found that social health insurance (i.e. contributory schemes) can easily cover the formal sector and the poor, but is not effective at covering non-poor informal sector workers until the economy has reached a high level of economic development (Wagstaff, 2009). A separate scheme for this population segment in Cambodia will face great challenges to generate sufficient revenue and eschew adverse selection (OECD, 2017). Many countries have struggled to effectively implement contributory schemes. A recent study from Kenya found that the informal sector does not have the financial potential to sustainably pay contributions for health insurance (Okungu and McIntyre, 2019). In Ghana, the National Health Insurance Scheme's nationally-set minimum payment amounts to just over USD 5. However, authorities are unable to enforce the payment of the mandatory contributions for those in the informal sector, whose contributions amount to only 4–5 per cent of the scheme's cost (Amporfu, 2013; Chankova, Atim and Hatt, 2010; Cotlear et al., 2015; Schieber et al., 2012).

In Mexico, the national *Seguro Popular* health insurance programme initially set family contributions ranging from USD 60 (for the third income decile) to USD 950 for families in the highest decile. However, very few people (<1%) pay any contributions. The law has progressively exempted low-income households – initially the two poorest and subsequently the four poorest income deciles, as well as families in deciles four to seven with a pregnant woman or a young child (Han, 2012; Knaul et al., 2012; Cotlear et al., 2015).

Countries such as the Philippines have promoted enrolment with incentives for organized groups to increase enrolment among their members (Lagomarsino et al., 2012). However, there is a dearth of associations in Cambodia (Coventry, 2015). The NSSF is planning to test voluntary coverage extension through informal-sector associations targeting *tuk-tuk* (motorized tricycle taxi) drivers and domestic workers, the two largest informal worker groups in the capital city. These groups could potentially extend coverage to an additional 2,300 people (Vautier, 2019), a small fraction of the uncovered population.

As the collection of insurance contributions from workers in the informal sector is inefficient and unlikely to yield significant revenue, a focus on a tax-based approach is considered a more efficient and equitable approach (Averill and Marriott, 2013). In addition, there is evidence that tax-financed systems (i.e. those paid for primarily through public expenditure) tend to be proportional or mildly progressive, in contrast to social insurance systems (i.e. those paid for through enrolee contributions) which are regressive and private systems which are even more so (Wagstaff and van Doorslaer, 1992).

Thailand's system is considered fragmented, with three separate schemes: i) civil servants, ii) formal employees (contributory), and iii) the informal sector and the poor (tax-based, non-contributory). Although this has created several challenges to providing equitable benefits, several health system reforms have improved the equity and efficiency of the tax-based scheme (Prakongsai, Limwattananon and Tangcharoensathien, 2009). In addition, a recent assessment of that scheme showed evidence of substantial reductions in OOP payments and in the incidence of catastrophic health spending and medical impoverishment, while also reducing provincial gaps in child mortality (Tangcharoensathien et al., 2018).

However, each country's path to universal health care is unique (Lagomarsino et al., 2012). Progressive realization is a guiding principle for countries on their path to universal coverage (Baltussen et al., 2017). A phased approach for the gradual expansion of the HEF to vulnerable groups, including uncovered households in the first wealth quintile, as well as in the financially vulnerable second and third wealth quintiles, aligns with the Cambodian government's incremental approach to policy-making (Diaz Pedregal, Destremau and Criel, 2015). This current assessment of the coverage potential, coverage gaps and social equity considerations in Cambodia aims to enable decision-making and the development of options for health coverage expansion to support the RGC's national policy goals.

Conclusion and recommendations

Many countries are rapidly extending social protection coverage (Ortiz, 2018; Escobar, Griffin and Shaw, 2010; Knaul et al., 2012; Yiengprugsawan et al., 2010). The RGC has established national policy goals to reduce poverty, vulnerability and inequality with social equity as a fundamental principle. The progressive expansion of social health protection should ensure that the costs of expanding coverage for universal health care do not present an undue burden on enrolees and that those costs are fairly distributed. In addition, it is important to consider the relative efficiency of contribution collection, particularly among the informal-sector population who do not currently have a coverage mechanism.

This article has assessed the potential for coverage extension, current gaps, and social equity considerations to advance decision-making for the progressive expansion of social health protection. We offer a number of broad recommendations. The adoption of these recommendations would contribute to achieving UHC in Cambodia by expanding population coverage.

First, we recommend that Cambodia pursue equitable access to health care by extending coverage under the HEF to all vulnerable groups and, to the extent possible, their households, to avoid fragmentation. Population coverage may also be increased through the inclusion of family members of formally employed workers currently covered under the NSSF (formal sector) scheme.

In addition, the Cambodian government should reconsider the feasibility of establishing a new contributory scheme for the informal-sector population owing to financial vulnerability among the poorest three quintiles, the costs and logistical challenges associated with the collection of contributions, and the limited potential for revenue generation (Bredenkamp et al., 2015; Lagomarsino et al., 2012; Arnold and Campbell, 2018). The establishment of an additional scheme would result also in the further fragmentation of the current system.

To determine a specific policy approach, Cambodia should complete cost and coverage modelling to provide options and a timeline for a phased process of coverage expansion. The information and parameter estimates presented in this article seek to support the proposed modelling.

Second, we recommend that Cambodia should gradually increase the regulatory ceiling for contribution collection under the formal employees' scheme. This is currently set at KHR1 million (USD 243.90). Although the ceiling exceeds the mean income of the richest quintile (USD 209.28), it is not an equitable approach as it favours the workers at the highest end of the wealth curve by capping their contribution. Increasing the contribution ceiling would raise revenue to expand coverage, most logically to family members of formal employees already enrolled in the scheme. Minimally, the NSSF should enrol vulnerable individuals who reside with a formal worker. This will reduce the overall pool of uncovered individuals, including vulnerable people, and reduce the costs associated with HEF expansion to the remaining uncovered vulnerable groups.

Third, we recommend enabling higher-income informal workers to voluntarily enrol and self-pay contributions to the current employees' scheme.

Finally, we recommend the establishment of a social health protection monitoring and evaluation system to enable systematic progress monitoring of investment, enrolment coverage, service quality, financial risk protection, and utilization towards the achievement of universal health coverage. Related Sustainable Development Goal (SDG) indicators should be integrated into the proposed monitoring and evaluation system. This would ensure an increased and continuing focus to reach the ambitious SDG targets.

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A. Appendix

$$\text{Proportional share of income} = 2.6\% * \text{Mean\_Effective\_income}_{quintile} \tag{1}$$

$$\text{Proportional share of CTP}_{quintile} = 2.6\% * \left(\text{Mean\_Effective\_income}_{quintile} – \text{Subsistence\_expenditure}\right) \tag{2}$$

$$\text{Weighted NSSF rate}_{quintile} = \sum_{i=1}^{5} (2.6\%) * \left(\frac{\sum_{i=1}^{5} Total\bar{}income_{HH}}{\sum_{i=1}^{n} Total\bar{}income_{HH}} \right)_{\text{quintile}} \tag{3}$$

$$\text{Equitable share of income}_{quintile} = \text{Weighted NSSF rate}_{quintile} * \text{Mean\_Effective\_income} \tag{4}$$

$$\text{Equitable CTP}_{quintile} = \left(\text{Mean\_Effective\_income}_{quintile} – \text{subsistence expenditure}\right) * \text{weighted NSSF rate}_{quintile} \tag{5}$$

The cross-border portability of social security benefits: Status and progress?

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Abstract The importance of the cross-border portability of social benefits is increasing in parallel with the rise in the absolute number of international migrants and their share of the world population, and perhaps more importantly with the much higher and rising share of the world population that for some part of their life is working and/or retiring abroad. This article estimates how the rising stock of migrants is distributed over four key portability regimes ranging from portability through bilateral social security arrangements to undocumented workers with no access to any scheme. The comparison of estimates for 2000 and 2013 indicate a modest but noticeable increase in the share of migrants under regime I (full portability) by 1.4 per cent, but the biggest change occurred under regime III (no access to social security but also no contributions required), which almost doubled to 9.4 per cent. Regime II (potential exportability without totalization) reduced by 3.0 percentage points but remains the dominant scheme (at 53.2 per cent). The estimates suggest that the scope of regime IV (informality) reduced by 2.9 percentage points, accounting for 14.0 per cent of all migrants in 2013. This trend is positive,

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but more will need to be done to progress on benefit portability and various potential solutions lie outside bilateral agreements that are difficult to establish.

Keywords social security administration, migrant worker, retired worker, social security agreement, maintenance of acquired rights, international

Introduction

The portability of social benefits by international labour migrants is gaining importance across the world. This interest in the cross-border portability of social benefits is the result of an increasing number of individuals spending at least some part of their life abroad working and acquiring rights for pensions, health care, and other social benefits that they want to preserve when returning home or moving on to another country of work or residency (Taha, Siegmann and Messkoup, 2015). The labour migrant-driven demand for cross-border portability (ILO, 2010; Sabates-Wheeler and Feldman, 2011; Sabates-Wheeler, Koettl and Avato, 2011) is joined by the more recent retirement migrant-driven demand (Warnes, 2009) and both are a critical aspect of globalization.

The portability of social benefits was recently contemplated as a performance indicator for the Sustainable Development Goals (SDGs) (see Hagen-Zanker, Mosler-Vidal and Sturge, 2017). Migration is considered by the United Nations (UN) as one of the defining features of the twenty-first century, and one that can contribute to achieving the SDGs. However, the proposal to include the number of and growth in bilateral social security agreements (BSSAs) as performance criteria was ultimately dropped, as the link between portability instruments and portability outcomes is rather complex and does not lend itself to a simple counting of instruments established.

Cross-border benefit portability is understood as a migrant's ability to preserve, maintain, and transfer both acquired social security rights and rights in the process of being acquired from one private, occupational, or public social security scheme to another, independent of nationality and country of residence (Cruz, 2004). Social security rights refer, in principle, to all rights stemming from contributory payments or residency criteria in a country. Benefits that are not typically portable are those that are not based on contributions, such as benefit top-ups for low-income individuals or minimum income guarantees.

How to best establish cross-border portability is still an open research and policy question. The three key options – cross-country agreements, multinational providers, and benefit redesign – are both substitutes and complements, and have not yet been rigorously compared and evaluated. BSSAs between migration corridor countries are often considered the best approach to establish portability; based on the few available corridor studies, BSSAs seem to work broadly well (Holzmann, 2016). Yet prior to this article, the only other available data (from 2000) suggest that only 22 per cent of the world's migrants move between countries where BSSAs exist (Holzmann and Koettl, 2015; Avato, Koettl and Sabates-Wheeler, 2010). Establishing them is time consuming and protracted, their scope of benefits and actual performance are largely unknown, and complementary and substitutive approaches might lead to more effective portability. Nonetheless, BSSAs are likely to be the best option, and may even add value if alternative instruments exist, as these enhance the effectiveness of BSSAs.

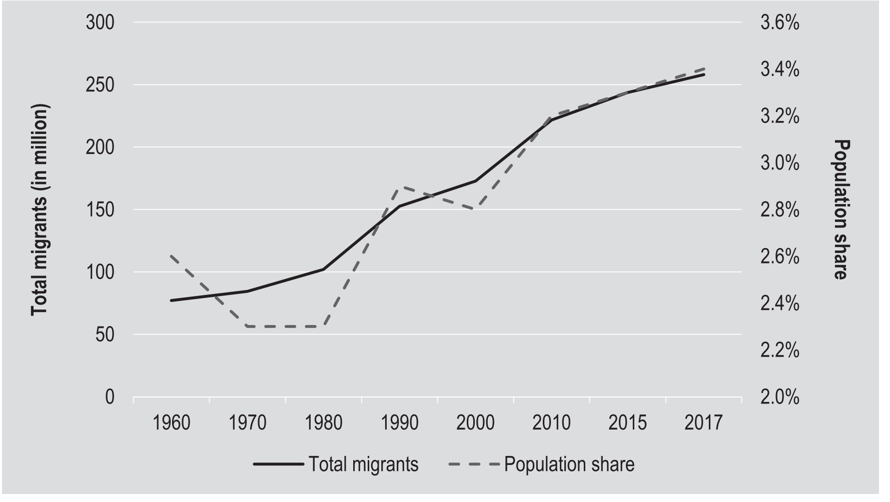
This article offers new estimates of the relevance of BSSAs in 2013, presents the estimated distribution of and changes in migrant stocks across four key portability regimes and across regions in 2000 and 2013, and analyzes the reasons behind these changes. The estimates suggest modest but noticeable progress in benefit portability.

The structure of this article is as follows. The next section briefly reviews some data and background on the scope of migration, stocks and flows of migrants, migrants' acquired social security rights, and the dynamics underlying portability. We then provide some basic information on BSSAs before describing the data, the four portability regimes, and the estimation approach. The 2013 estimates on migrants under each portability regime are presented and we compare these with the 2000 (re-)estimates from several different angles. The article concludes with a summary of findings and offers policy conclusions.

Migration dynamics and portability relevance

The share of individuals living outside their home country is increasing again after a temporary fall in the 1970s, reaching 3.4 per cent of the world population in 2017 (up from 2.3 percent in 1980), or an estimated 258 million people (United Nations, 2017). Figure 1 presents the number of migrants and their share in the world population since 1960. On 1 January 2016, the number of people living in the 28 European Union Member States (EU–28) who were citizens of non-Member States was 20.7 million, representing 4.1 per cent of the EU–28 population, while the number of people living in the EU–28 who were born outside of the EU was 35.1 million. In addition, 16.0 million persons were living in one of the EU Member States on 1 January 2016 with the citizenship of another EU Member State (Eurostat, 2017).

Figure 1. *Number and share of migrants in world population, 1960–2017*



Source: Authors' compilation based on UN-ESA (2017); Migration Policy Institute, Migration Data Hub.

These migrant stock numbers – impressive as they are – underestimate the underlying labour mobility dynamics; that is, the number and increasing share of individuals who have lived or will live at least some part of their working or retired life outside their traditional country of residence. While this development is more difficult to quantify due to individuals' multiple migration spells of varying length, sometimes to multiple countries, indications from across the world are strong that the number of spells spent abroad is increasing. In the EU, the number of citizens who spend at least some of their adult life living outside their home country (as a student, intern, intrafirm and interfirm mobile employee, labour migrant, or "snowbird" retiree) is definitely rising and may soon be as high as one out of every five individuals.

This subsection presents the few available indicators of the rising labour and benefit mobility across borders. These serve to measure the portability phenomenon in the absence of consistent data across countries and time. The indicators represent only EU countries.

Past labour market spells abroad translate into rising numbers of pension payments to and from abroad. For example, in Germany in 2013, these amounted to about 11.1 per cent of the total number of pensions paid, rising from 9.8 per cent in 2005 (Table 1).

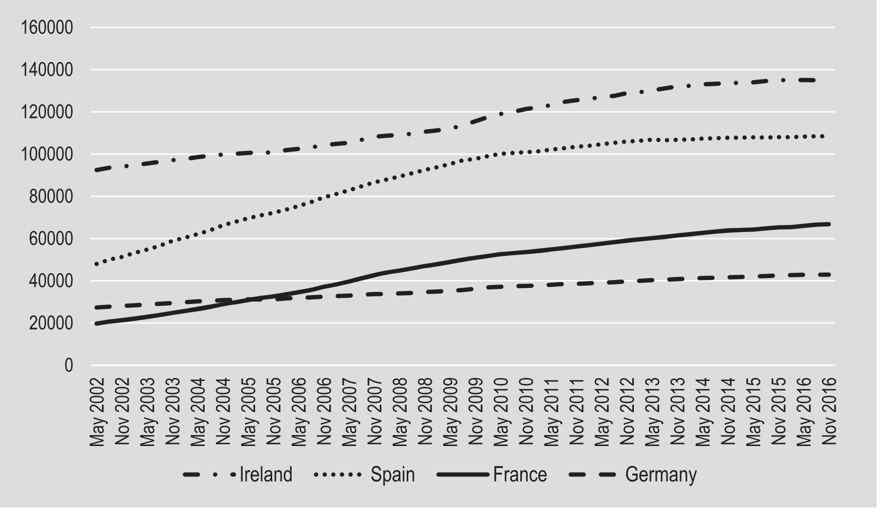
Figure 2 presents data for the United Kingdom (UK) on trends in EU residency of recipients of UK state pensions (including British and non-British subjects) from 2002 to 2016. Residents in Ireland and Germany may include a balance of return

Table 1. *Recipients of statutory German pensions – in Germany and abroad*

Number of pensioners in millions (% of total pensioners)	**2013**	**2010**	**2005**
Total non-German pensioners	2.562 (100%)	2.367 (100%)	2.032 (100%)
living in Germany	1.059 (41.3%)	0.944 (39.9%)	0.774 (38.1%)
living outside Germany	1.503 (58.7%)	1.423 (60.1%)	1.258 (61.9%)
Total German pensioners	22.602 (100%)	22.646 (100%)	22.452 (100%)
living outside Germany	0.222 (0.98%)	0.206 (0.91%)	0.170 (0.76%)
Total pensioners	25.164 (100%)	25.013 (100%)	22.484 (100%)
living outside Germany	1.725 (6.85%)	1.629 (6.51%)	1.427 (5.83%)
non-German pensioners living in Germany	1.059 (4.21%)	0.944 (3.77%)	0.774 (3.44)
potential recipients of cross-border pensions	2.784 (11.1%)	2.573 (10.3%)	2.201 (9.8%)

Source: Genser and Holzmann (2018), based on Eurostat Online Database (June 2015).

Figure 2. *Recipients of cross-border UK state pension in four EU member countries, 2002–2016*



Source: UK Department for Work and Pensions, State Pension administrative data.

and retirement migrants; residents in France and Spain are likely to be dominated by retirement migrants. The dynamics and numbers are impressive.

Comparable pension data for other countries are not publicly available. Warnes (2009) presents public pension data for Germany, the United Kingdom, and the United States that reflect the popularity and dynamics of their respective retirement destinations from the mid-1990s to 2005.

Another example is Japan, which has had a relatively rigid migration policy but gradually has opened its borders, particularly to skilled blue collar workers. According to the Japan Ministry of Justice,[1] there were 598,696 registred foreigners in Japan in 1950 and 2,232,189 in 2015. The biggest increase is for migrants from the Philippines (rising from 367 in 1950 to 229,595 in 2015), followed by Viet Nam (rising from 25 in 1950 to 146,956 in 2015). China and and the Republic of Korea remain the traditional sources of migration to Japan (respectively 32 and 22 per cent of the total stock of registred migrants), but the Philippines and Viet Nam now account for 10 and 7 per cent of the total stock of migrants.

There are currently three ways to organize the portability/exportability of pension benefits from Japan. First, Japan has concluded 18 international social security agreements among which 14 make possible the totalization of coverage periods. Second, migrant workers can claim a lump-sum withdrawal payment under several conditions within two years after leaving Japan if they are no longer covered by the National Pension (NP) system, the Employees' Pension Insurance (EPI) or the Mutual Aid systems but did work for more than 6 months and less than ten years in Japan. Finally, in August 2017, Japan shortened to 10 years (as opposed to 25 years prior to the reform) the coverage period requirement to receive a Japanese old-age pension (when no social security agreement allows the totalization of coverage periods). The third and, particularly, the second way to export social benefits is particularly relevant for migrants from Member states of the Association of Southeast Asian Nations (ASEAN) and from China as most are not covered by a social security agreement; an agreement with China is under preparation.

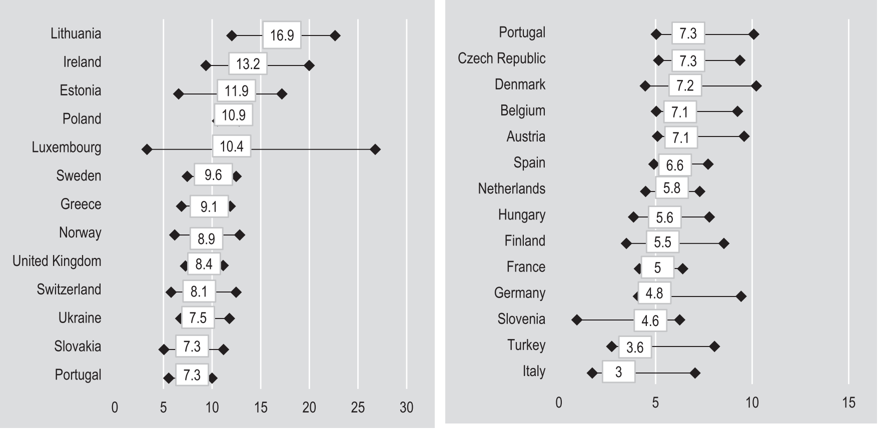
The final example reflects the underlying dynamics of future portability needs of the current working population. Spending six months or more in another country in paid work typically qualifies one for some social benefits, particularly future pension rights that need to be addable and portable at retirement. Figure 3 shows the percentage of people in their source country who spent six months or more working abroad in EU countries or Turkey between 2004 and 2014. Extending the measurement period beyond these years to include individuals' entire working life would further increase the share of individuals who will have acquired rights abroad and should have them included when their pension benefit at retirement is calculated.

Basic information on bilateral social security agreements

While promising portability mechanisms other than BSSAs exist, they are more supplements than substitutes for arrangements between countries along their

1. Data on Japan is publicly available.

Figure 3. *Percentage of people aged 18–64 who spent at least six months in paid work in another country during the last 10 years*



migration corridors. Thus BSSAs will remain the centerpiece of social benefit portability for the foreseeable future. Given their importance and this article's focus on them as a key portability regime, this section offers some basic information on BSSAs. The following subsections include: a brief overview of BSSAs and other intergovernmental arrangements; country scope and dynamics in BSSAs; first results on their effectiveness; and a summary of policy conclusions on BSSAs.

Portability arrangements and BSSA specificities

A range of portability arrangements can be used to enhance or fully establish portability. Most portability discussions focus on BSSAs, but the scope of arrangements is much larger and includes the following (Holzmann and Koettl, 2015):

Unilateral actions can be taken by a country where individuals have established or are establishing acquired rights. Such actions can improve portability through full exportability of benefits in disbursement and can facilitate transfer of rights in creation.

Multilateral arrangements (MAs) represent a general framework of portability for a group of countries for all or a subset of social benefits. These general rules are typically supported by more detailed BSSAs. The most developed MA is the one among EU Member States (plus Norway, Lichtenstein, and Switzerland) that is actually not an MA, but based on supranational EU law. Traditional MAs have been established in Latin America (MERCOSUR) and the

Caribbean (CARICOM) and in 15 French-speaking countries in Africa (CIPRES); one was recently established between Latin America and Spain and Portugal (Ibero-American Social Security Convention); and one is under development for the ASEAN countries.

BSSAs are the centerpiece of current portability arrangements between countries. While they can in principle cover the whole range of exportable social benefits, BSSAs focus mostly on long-term benefits such as old-age, survivors', and disability pensions and, to a much lesser extent, on health care benefits.[2]

BSSAs serve multiple objectives, including: defining which social benefits will be coordinated; establishing the depth of coordination (from time-limited exemptions to contribute to the host scheme to exportability of benefits to full-fledged coordination); and establishing coordination on eligibility criteria, benefit calculation, disbursement, service delivery, financing, and processes of application, decision, and information.

Effective BSSAs should ensure: equality of treatment; payment of benefits abroad (exportability); determination of applicable legislation (to ensure that the social security of a migrant worker is governed at any one time by the legislation of only one country); maintenance of benefits in the course of acquisition (totalization); and administrative assistance (in home and host country). Though these principles are largely observed, the content and implementation of BSSAs are highly variable.

The international scope and dynamics of BSSAs

The dynamics and distribution of BSSAs across countries are closely linked with the development of mandated and universal social security programmes across the world and the migration dynamics between countries; and their links to colonial heritage have been demonstrated to play a role (Schmitt, 2015). Two figures offer a succinct overview: Figure 4 presents the density of BSSAs per country; Figure 5 presents the dynamics between 2000 and 2013 – the legend indicates the number of new BSSAs that entered into force in this timeframe.

2. For some historical and legal background on BSSAs, see Strban (2009); for a review of issues of BSSAs with non-Member States within the EU context, see Spiegel (2010); for a broad-brush policy analysis of migrants and social security, including portability issues, see Blanpain et al. (2014); for a review of literature, see Taha, Siegmann and Messkoup (2015); for recent a mapping of bilateral and multilateral social security agreements in 120 countries and a more in-depth legal analysis of migrant workers' access to social protection under BSSAs or Memoranda of Understanding (MoUs) for nine corridors among 15 countries see van Panhuys, Kazi-Aoul and Binette (2017). For the texts of BSSAs worldwide, see the ILO NATLEX database.

Figure 4. *Number of BSSAs (regime I) by country in 2013*

Note: Figure made using South (2011); data available from the R Journal.

Source: ILO NATLEX database.

Figure 4 clearly shows that BSSAs remain largely an arrangement between richer countries in the northern hemisphere and are used very selectively in the southern hemisphere. The increased establishment of BSSAs between 2000 and 2013 (Figure 5) also reflects this phenomenon, but reveals India – which expanded social security programmes over the past 15 years (Drèze and Khera, 2017) – , Turkey, and the Republic of Korea as emerging powerhouses.

Figure 5. *Increase in BSSAs (regime I) between 2000 and 2013*

Note: Figure made using South (2011); data available from the R Journal.

Source: ILO NATLEX database.

First results on the effectiveness of BSSAs

BSSAs between countries are considered by most or all of the social security profession as the key instrument to establish portability for mobile workers. Although some call the approach “state of the art”, no substantiated proof exists for such an assertion. Neither a regional nor a worldwide inventory of BSSAs has been conducted to describe their basic features in a comprehensive, analytical way (for example, type of benefits covered, depth and type of coordination on such benefits, and so on). To the authors’ knowledge, no other qualitative study nor any quantitative analysis has been published to explore the functioning of BSSAs, to highlight their strengths and weakness, or to evaluate them against predefined criteria[3]; a recent review of the literature (Taha, Siegmann, and Messkoup, 2015) comes to the same conclusion. The International Labour Office (ILO) study by van Panhuys, Kazi-Aoul and Binette (2017) offers a comprehensive legal review of BSSAs that lacks, however, any indication or attempt to asses whether the legal instrument is actually working. Holzmann, Koettl and Chernetsky (2005) undertook a first attempt in this direction based on information gathered for a few migration corridors. While incomplete, the study showed the potential power of corridor studies. Corridor studies have some tradition in the analysis of migration flows and integration issues.

To start filling the knowledge gap about the functioning of BSSAs, the World Bank sponsored four corridor studies from 2013–2015. The four country corridors (Austria–Turkey, Germany–Turkey, Belgium–Morocco, and France–Morocco) were selected to allow for comparison of both similarities and differences in experiences of BSSAs between EU and non-EU countries that have established labour migration corridors since the 1950s. The evaluation of these corridors’ BSSAs was undertaken against a methodological framework and three selected criteria: contribution/benefit fairness for individuals, fiscal fairness for countries, and bureaucratic effectiveness for countries and migrant workers.[4]

3. A recent analysis by the Organization of American States on the regional functioning of bilateral and multilateral social security agreements is a useful step (CIDI, 2015). The study offers an informative description of the history and status of the agreements, yet it assesses only the legal content of the agreements without any benchmark and outcomes.

4. For the individual corridor studies, see the World Banks’s Social Protection and Labor Discussion Papers in 2016. For a comparison across the east corridors, see Fuchs and Pacaci-Elitok (2014); for the west corridors, see Legros et al. (2014), and Jacques, Bensaid and Legros (2015) (in French). For an elaboration of broader principles and further country experiences with portability, see the papers in a special volume of CESifo Economic Studies (2015).

Summary of policy conclusions regarding BSSAs

The overall conclusions were relatively encouraging. The four investigated BSSAs seem to be broadly working, with only a few areas of contention and recognized areas for improvement. With some exceptions, this assessment essentially holds for all three criteria used to evaluate the BSSAs.

Fairness for individuals. BSSAs do not create a major benefit disadvantage that affects mobility on a large scale in any of the four corridors. Implementation of full health care benefits for mobile workers between France/Belgium and France/Morocco will close a remaining relevant benefit gap. The BSSAs offer the expected pension portability for mobile workers, with no major issues around the lack of benefit takeup. A few important outstanding issues remain, particularly the non-portability of noncontributory pension top-ups, requests for retroactive payment, and (for the Francophone corridors) the handling of Muslim repudiation/divorces and widows' benefits. Family allowances remain an issue for discussion and different approaches across the corridors may persist.

Fiscal fairness for countries. The pension systems' evaluation yields a mixed picture. For the four BSSAs considered, their increasingly actuarial pension benefit structure helps in the pursuit of fairness; high and increasing levels of budgetary transfers to keep pension systems afloat have a counter effect. For health care systems, it is unclear whether and to what extent fiscal fairness is or can be achieved under the current responsibility and reimbursement structure and how important the problem is. This is an area where major conceptual and empirical work is required.

Bureaucratic effectiveness. Stakeholders gave EU host countries' institutions high marks for their provision of benefit-related information and services, but had a less favorable assessment for their home countries. A concern for many applicants is the delay in processing; the advantages of advanced electronic file preparation in some but not all EU countries are attenuated by the paper-based information collection systems in Morocco and Turkey; the situation is further aggravated by verification issues for names and birth dates. Electronic file exchange systems across BSSAs are envisaged and may soon take place in some corridors.

Data and estimation approach

To estimate the scope of and changes in migration regimes, data from migration stocks in 2000 and 2013 were merged with information about BSSAs and similar arrangements under the four migration regimes previously described (and developed in Holzmann, Koettl and Chernetsky, 2005) and by alternative country groupings based on income level and region. In this section we introduce the data, the country classifications, the migration regime definitions, and the estimates of undocumented workers.

The overall approach is to categorize and estimate the stock of migrants between two countries for each of the four migration regimes. The categorization is done by both source and destination country. Within these two categories, each country can be further categorized by income group and region.

Data and classifications

Stocks of migrants by origin and destination country are estimated using the "Bilateral Estimates of Migrant Stocks" in 2000 and 2013 provided by the World Bank.[5] The basic information is bilateral data on the stocks of migrants, provided as a migration matrix. As this article not only calculates the migration regimes for 2013 but also compares them with those of 2000, it is necessary to control for country attrition and the change in countries between 2000 and 2013. The 2000 matrix includes a larger number of countries than the 2013 matrix. Consequently, a certain number of countries are excluded from both the 2000 and the 2013 matrix as they are missing in 2013 (Table 2). Similarly, a smaller number of countries in the 2013 matrix were not in the 2000 matrix and hence were excluded. Overall, the share of migrants excluded due to missing values in one of the two datasets is 0.98 per cent in the 2000 matrix and 1.01 per cent in the 2013 matrix. Furthermore, some country nomenclatures changed slightly between the two periods. For example, Sudan was divided in 2011 into Sudan and the Republic of South Sudan. To keep data homogeneous over the period, North Sudan and South Sudan are kept under the same nomenclature in both matrixes. The nomenclature also changed for "Occupied Palestinian Territory" in 2005, coded as "West Bank and Gaza" in the 2013 dataset but not in the 2000 dataset. They are merged into one category here to allow comparison.

Data are presented using two main categories: the country income group classification and the regional classification, both as defined and used by the World Bank. The regional classification distinguishes Africa (AFR), East Asia and Pacific (EAP), Europe and Central Asia (ECA), European Union and other Western Europe (EU27+), Latin America and the Caribbean (LAC), Middle East and North Africa (MNA), North America (NAR), and South Asia (SAR). This regional classification did not change between 2000 and 2013.

5. See the World Bank Migration and Remittances Data.

Table 2. *Missing data*

Countries	2000	2013
Included	185,378,653 (99.02%)	236,302,967 (98.99%)
Not included	1,839,255 (0.98%)	2,418,638 (1.01%)
Total	187,217,908	238,721,605

Note: The following countries were included in the 2000 dataset but not in the 2013 dataset: Anguilla, British Virgin Islands, Cook Islands, Falkland Islands (Malvinas), Faroe Islands, French Guyana, Gibraltar, Guadeloupe, Martinique, Mayotte, Montserrat, Mariana Islands, Nauru, Netherlands Antilles, Niue, Norfolk Island, Reunion, Saint Helena, Saint Pierre and Miquelon, Taiwan (China), Tokelau, Wallis, and Futuna. The following countries were included in the 2013 dataset but not in the 2000 dataset: Channel Islands, Curacao, Faroe Islands, Isle of Man, Mariana Islands, and Sint Maarten (Dutch part).

Source: World Bank Migration Matrix 2000 and 2013.

The country' income group classification distinguishes low-income (LI), lower-middle-income (LMI), upper-middle-income (UMI), high-income non-OECD (HI NOECD), and high-income OECD countries (HI OECD). The income group classification herein is based on the World Bank classification in which income is measured using gross national income (GNI) per capita, in US dollars (USD), converted from local currency using the World Bank Atlas method. The income thresholds used for classification purpose are updated annually and adjusted for inflation (using a deflator). Consequently, the income group classification of a country may change from one period to another. Thus this article uses the 2005 classification for both the 2000 and the 2013 matrixes to allow comparison of changes from one period to another. Appendix Table A1 shows the changes in income group that occurred from 2005 and 2017; these are not taken into consideration in the calculations that follow.

Migration regimes

To estimate the level of benefit portability among migrant population across the world, the definitions of migration regimes developed by Holzmann, Koettl and Chernetsky (2005) are applied:

Regime I (portability). All legal migrants who have indiscriminate access to social security programmes in their destination country. In addition, origin and destination country have concluded a bilateral or a multilateral social security arrangement that makes, in principle, benefits portable across borders: those in disbursement and also those in accumulation. This portability arrangement covers essentially all benefits in some countries, but in many arrangements it is essentially limited to pensions. A few arrangements allow migrants to continue to pay into the scheme of the origin country.

Regime II (exportability). All legal migrants who have access to social security in their host country in the absence of a bilateral arrangement between their origin and destination country. The national social law of the destination country alone determines to what extent benefits are payable overseas, which may result in limited exportability of benefits.

Regime III (no access). All legal migrants who do not have access to social security for nationals in their destination country; they neither pay contributions nor receive benefits before and after departure.

Regime IV (informality). All undocumented migrants who neither have access to social security nor can acquire benefit rights to take home or onward.

Data for regime I were provided for the 2000 estimates in a personal communication by the ILO bilateral matrix and were updated using the International Labour Organization (ILO) NATLEX webpage. Appendix Table A2 shows the changes in BSSAs that occurred over the selected period.

Estimates of undocumented migrants

The World Bank migration data cover only documented migrants. As the informality regime is important for an assessment of portability, the official migration matrix data of 2013 are augmented with estimates of the number of undocumented migrants. The 2000 data already include estimates of undocumented migrants.

Using the methodology applied in Holzmann, Koettl and Chernetsky (2005), the share of undocumented migrants was calculated using a multiplier estimation technique (Jandl, 2004) in which the size of an unknown parameter has a stable relation to a variable that can be measured (i.e. the migration stock). The share of undocumented migrants was estimated based on stocks of migrants and external information. The formula used for calculating the number of undocumented migrants, the number of legal migrants, and the total stock of migrants including undocumented migrants may be written as follows:

$$\sum_{b_i}^{b_I} T = \sum_{b_i}^{b_I} \left[\theta - \left(\frac{\theta * y}{x}\right)\right] + \left[(\theta * y) - \left(\frac{\theta * y}{x}\right)\right]$$

where θ is the original stock of migrants provided by the World Bank migration matrix (at a bilateral level (b)), the "y" parameter calculates the share of undocumented migrants based on the original stock of migrants (θ), and the "x" parameter calculates the share of undocumented migrants (as a percentage) included in the original data (θ). T is the sum of the number of undocumented and documented migrants and is, due to the calculation, slightly different from the original data.

Put another way, the calculation is made in three steps:

- First, the number of illegal undocumented migrants is calculated based on the number of migrants provided by the World Bank migration matrix.
- Second, as the share of illegal migrants is included in official data,[6] the total number of legal migrants is calculated as the difference between the original stock of migrants and the percentage (y) of illegal migrants.
- Finally, the total number of migrants (both undocumented and illegal) is the sum of the total number of illegal migrants and the total number of legal migrants.

The value of x is based on the following assumptions:

- In high-income countries, 1 per cent of official migrants are illegal – they are distributed proportional to the bilateral migration flows.
- In low- and middle-income countries, 17 per cent of official migrants are illegal.

The value of y is based on the following assumptions:

- In high-income countries, 20 per cent of illegal migrants are not captured by official data.
- In the United States, 80 per cent of illegal migrants are not captured by official data (20 per cent are captured by the census).
- In South Africa, 0 per cent of illegal migrants are captured by the census.
- In low- and middle-income countries, 30 per cent of illegal migrants are not captured by official data.

Coefficients for *x* and *y* were post-estimated using external available sources for the following countries: Germany (Vogel, 2015), Italy (Blangiardo, 2008), Europe (Morehouse and Blomfield, 2011), the United States (Passel, 2006; Hoefer, Rytina and Baker, 2013; Passel and Cohn, 2014; and Rohal, 2014), the Philippines (Bryant, 2005), and ASEAN countries (Battistella, 2002).

6. Many developed countries undercount the share of illegal migrants in official statistics (Adams and Page, 2005).

Progress in cross-border social benefit portability: 2013 versus 2000

The prior sections identified and described four different portability regimes: portability, exportability, no access, and informality. But this sequence implies some ranking that – beyond portability – may not necessarily hold. This section thus presents, explores, and evaluates the levels of and changes in the portability regimes of migrants across countries in and between 2000 and 2013, to gauge how much progress has taken place. It starts with a baseline result that suggests modest progress. It then differentiates the changes across regimes by country groups according to income and region, both based on World Bank definitions. Migration transition matrices that capture the changes in the shares or numbers of migrants between 2000 and 2013 along the same two categories provide further support for the interpretation of the results.

Table 3 presents the change in the shares of migrant stocks by portability regime. The right-hand column shows the stocks of migrants (including undocumented) in 2000 and 2013 and the change between both years: the stock of migrants increased by over 30 per cent in 13 years.

The distribution of the shares of migrants by the four portability regimes changed between the observation years, but the ranking of their magnitudes remained unchanged.[7] In general:

- Over 50 per cent of migrants still fall under the exportability regime (II), which offers, at maximum, the export of eligible pension benefits (old-age, disability, survivors') but not the portability of rights in accrual.
- Over 20 per cent of migrants moved between countries that have a portability regime (I) based on a BSSA or a similar arrangement that offers the full exportability of benefits in disbursement as well as the portability of rights under accumulation.
- Less than 20 per cent of migrants fall under the informality regime (IV), and less than 10 per cent of migrants fall under the no access regime (III).

The changes indicate a modest but noticeable increase of 1.4 percentage points under regime I (portability) while the change under regime III (no access) is 4.5 percentage points, representing an almost doubling of the share. These increases are offset by reductions in the informality and exportability regimes of 3.0 and 2.9 percentage points, respectively.

Overall, these estimated changes indicate some modest progress through a higher share of migrants moving to destination countries that have a BSSA with the origin

7. All results for 2000 differ slightly from those reported in Holzmann, Koettl and Chernetsky (2005) and Avato, Koettl and Sabates-Wheeler (2010). This is the result of a string of minor corrections and most importantly of correcting the BSSAs' base for 2000. The prior calculations for 2000 based on BSSA data from the ILO in 2005 included BSSAs signed between 2000 and 2005; they are now excluded.

Table 3. *Status and progress in portability regimes, 2000 and 2013(in percent of total)*

Year	Regime I (Portability)	Regime II (Exportability)	Regime III (No access)	Regime IV (Informal)	Total (in million)
2000	21.9	56.3	4.9	16.9	191.8
2013	23.3	53.2	9.4	14.0	252.3
Change	1.4	−3.0	4.5	−2.9	60.6

Source: Authors' calculations.

country. Such a change may be generated by two developments – a rising number of BSSAs between migration corridor countries and/or a change in migrant stocks toward countries that have concluded BSSA agreements, or some other compensating developments (analysed below). The reduction in the share of migrants by 2.9 percentage points under the informality regime reflects the low rise of migrants in this category (some 3 million, or an increase of 10 per cent) compared to the growth of all migrants (60 million, or over 30 per cent since 2000). This decreasing informality between 2000 and 2013 is in line with other data and information, but developments since 2015 may have reversed this trend.

The almost doubling of the share of migrants under the no access regime reflects the strong attraction of Gulf Cooperation Council (GCC) countries (with Saudi Arabia in the lead) and of some Asian countries (such as Singapore, Malaysia, and Hong Kong (China)) that rely on a temporary workforce (so-called "expats") that has no access to the schemes of nationals but needs not pay social security contributions for pensions (work injury and basic health care are covered by employers). The source countries are also mostly in Asia, and often have underdeveloped social insurance schemes, making a BSSA less attractive. Survey data suggest that expat workers in these destination countries prefer the higher cash wages and their own saving arrangements.

The six panels that comprise Table 4 display the main results. Panels 4.1a and 4.1b to 4.3a and 4.3b detail the results by country income group – by origin and by destination. These suggest that a high share of migrants coming from or moving to the portability regimes remain within Organisation for Economic Co-operation and Development (OECD) Member countries, albeit with decreasing significance between 2000 and 2013. The panels also indicate that most migrants under the no access regime come from low-income countries and that the destination countries are concentrated in the high-income non-OECD and upper-middle-income groups. Most migrants under the informality regime seem to come from lower-income groups (including upper-middle-income countries), but they also migrate to these groups of countries. This dynamic lessened between 2000 and 2013, however.

Table 4. *Global migrant stock estimates by portability regime, by origin and destination country income group*

4.1a. By origin country, 2013 (in percent of income group)

Origin Country Income Group	Regime I (Portability)	Regime II (Exportability)	Regime III (No.access)	Regime IV (Informal)	Total (in million)
High Income Non-OECD	50.7	40.2	4.3	4.8	5.1
High Income OECD	76.3	19.0	0.4	4.3	33.0
Upper-middle Income	23.3	54.4	0.5	21.8	33.6
Low-middle Income	20.2	58.5	8.7	12.6	104.8
Low Income	2.7	61.2	18.7	17.3	75.9
Total (%)	23.3	53.2	9.4	14.0	252.3

4.1b. By destination country, 2013 (in percent of income group)

Host Country Income Group	Regime I (Portability)	Regime II (Exportability)	Regime III (No.access)	Regime IV (Informal)	Total (in million)
High Income Non-OECD	5.0	41.5	7.5	0.0	21.2
High Income OECD	38.3	52.7	0.0	9.0	123.7
Upper-middle Income	14.9	25.5	40.8	18.8	31.6
Low-middle Income	10.2	67.9	1.7	20.2	47.8
Low Income	2.8	75.0	0.7	21.4	28.1
Total (%)	23.3	53.2	9.4	14.0	252.3

4.2a. By origin country, 2000 (in percent of income group)

Origin Country Income Group	Regime I (Portability)	Regime II (Exportability)	Regime III (No.access)	Regime IV (Informal)	Total (in million)
High Income Non-OECD	40.4	54.3	3.5	1.8	5.5
High Income OECD	84.7	13.0	1.0	1.3	28.9
Upper-middle Income	13.7	58.8	0.7	26.8	25.4

4.2b. By destination country, 2000 (in percent of income group)

Host Country Income Group	Regime I (Portability)	Regime II (Exportability)	Regime III (No.access)	Regime IV (Informal)	Total (in million)
High Income Non-OECD	7.0	47.8	28.6	16.5	10.7
High Income OECD	38.9	46.3	0.0	14.9	89.1
Upper-middle Income	20.4	35.2	30.7	13.7	17.1

(Continued)

Table 4. *Global migrant stock estimates by portability regime, by origin and destination country income group* – Continued

Low-middle Income	14.1	62.7	4.5	18.7	77.9	Low-middle Income	6.4	68.7	1.8	23.2	44.8
Low Income	1.5	69.1	9.8	19.5	54.1	Low Income	0.9	82.4	1.1	15.5	30.1
Total (%)	21.9	56.3	4.9	16.9	191.8	Total (%)	21.9	56.3	4.9	16.9	191.8
4.3a. By origin country, change 2000 to 2013 (in percentage points)						**4.3b. By destination country, change 2000 to 2013 (in percentage points)**					
Origin Country Income Group	Regime I (Portability)	Regime IIa (Exportability)	Regime IIIb (No access)	Regime IVc (Informal)	Total (in million)	Host Country Income Group	Regime I (Portability)	Regime IIa (Exportability)	Regime IIIb (No access)	Regime IVc (Informal)	Total (in million)
High Income Non-OECD	10.3	-14.1	0.8	3.0	-0.4	High Income Non-OECD	-2.0	-6.4	-21.2	-16.5	10.5
High Income OECD	-8.4	5.9	-0.6	3.0	4.1	High Income OECD	-0.6	6.4	0.0	-5.9	34.6
Upper-middle Income	9.6	-4.4	-0.2	-5.0	8.2	Upper-middle Income	-5.5	-9.7	10.1	5.1	14.5
Low-middle Income	6.1	-4.2	4.2	-6.1	26.9	Low-middle Income	3.8	-0.8	0.0	-3.0	3.0
Low Income	1.2	-7.9	8.9	-2.2	21.8	Low Income	1.9	-7.4	-0.4	5.9	-2.1
Total (%)	1.4	-3.0	4.5	-2.9	60.6	Total (%)	1.4	-3.0	4.5	-2.9	60.6

Source: Authors' estimations.

As a result, underlying the increase under regime I between 2000 and 2013, larger changes occurred within income groups. Most importantly, the reduction in the share of OECD Member countries at both origin and destination contributed to the only modest improvement in the significance of the portability regime. In turn, those migrants from outside OECD Member countries profited from increased corridor flows as well as the rising number of BSSAs.

Table 5 and Table 6 complement the information about the scope of the origin–destination country relationship with two transition matrices: the former presents the transition matrix for 2013 in million migrants and the latter the changes between 2000 and 2013 as a percentage of the population. Table 5 clearly shows that the vast majority of migrants come from upper-middle-income and low-income countries, while almost half go to high-income OECD countries (i.e. the United States and most of the EU) and almost 20 per cent to upper-middle-income countries (i.e. GCC and East Asian countries).

Table 5. *Migrants' transition matrix for country income groups 2013 (in millions)*

	Destination countries group				
Source	**HI NOECD**	**HI OECD**	**UMI**	**LMI**	**LI**
HI NOECD	0.34	3.86	0.40	0.36	0.12
HI OECD	1.16	25.08	3.48	2.26	0.41
UMI	8.77	46.03	26.43	15.44	2.88
LMI	1.40	22.44	1.47	1.39	0.41
LI	8.99	16.81	13.10	10.57	22.60

Source: Authors' estimations.

Table 6. *Change in migrants' transition matrix, 2013 over 2000 (in percentage points)*

	Destination countries group					
Source	**HI NOECD**	**HI OECD**	**UMI**	**LMI**	**LI**	**Sum**
HI NOECD	0.04	−0.15	−0.58	−0.08	−0.05	−0.82
HI OECD	0.02	−1.48	−0.09	0.10	−0.46	−1.91
UMI	0.86	3.78	−3.92	1.66	−1.34	1.05
LMI	0.03	0.82	−0.46	−0.11	−0.19	0.08
LI	2.04	1.11	−0.43	1.91	−3.03	1.60
Sum	2.98	4.09	−5.48	3.48	−5.07	0.00

Source: Authors' estimations.

Table 7. *Global migrant stock estimates by portability regime, by origin and destination region*

7.1a. By origin region and portability regime, 2013 (in percent of income group)

Origin Region	Regime I (Portability)	Regime IIa (Exportability)	Regime IIIb (No Access)	Regime IVc (Informal)	Total (in million)
Africa	6.5	73.1	4.3	16.1	23.6
East Asia & Pacific	7.9	71.5	9.3	11.3	39.1
Europe & Central Asia	19.8	64.7	0.4	15.2	38.8
European Union (EU27+)	88.9	8.7	0.3	2.2	35.3
Latin America & Caribbean	15.6	63.6	0.0	20.8	45.8
Middle East & North Africa	19.5	41.8	24.6	14.2	26.1
North America	58.6	31.5	1.0	8.8	4.6
South Asia	0.4	50.0	32.0	17.6	39.0
Total (%)	23.3	53.2	9.4	14.0	252.3

7.1b. By destination region and portability regime, 2013 (in percent of income group)

Host Region	Regime I (Portability)	Regime IIa (Exportability)	Regime IIIb (No Access)	Regime IVc (Informal)	Total (in million)
Africa	4.5	74.2	0.8	20.4	16.9
East Asia & Pacific	17.8	73.0	0.3	8.9	25.2
Europe & Central Asia	15.5	64.9	0.0	19.6	29.3
European Union (EU27+)	65.1	33.0	0.0	1.9	54.0
Latin America & Caribbean	39.4	47.5	0.0	13.2	9.2
Middle East & North Africa	1.0	23.2	55.4	20.4	42.6
North America	15.7	67.9	0.0	16.4	62.6
South Asia	0.0	78.0	0.0	22.0	12.6
Total (%)	23.3	53.2	9.4	14.0	252.3

7.2a. By origin region and portability regime, 2000 (in percent of income group)

Origin Region	Regime I (Portability)	Regime IIa (Exportability)	Regime IIIb (No Access)	Regime IVc (Informal)	Total (in million)
Africa	3.1	70.0	3.1	23.8	20.1
East Asia & Pacific	13.6	67.3	3.6	15.5	23.1
Europe & Central Asia	12.1	66.8	0.9	20.2	41.7
European Union (EU27+)	80.6	15.5	1.0	2.9	28.9
Latin America & Caribbean	11.2	63.3	0.5	25.0	33.4
Middle East & North Africa	24.0	44.1	17.3	14.6	15.7
North America	67.0	30.1	1.6	1.4	3.6
South Asia	0.0	66.4	17.4	16.2	25.3
Total (%)	21.9	56.3	4.9	16.9	191.8

7.2b. By destination region and portability regime, 2000 (in percent of income group)

Host Region	Regime I (Portability)	Regime IIa (Exportability)	Regime IIIb (No Access)	Regime IVc (Informal)	Total (in million)
Africa	1.6	70.6	1.4	26.4	17.8
East Asia & Pacific	20.6	63.4	0.5	15.5	15.9
Europe & Central Asia	7.5	72.3	0.0	20.2	31.4
European Union (EU27+)	60.5	29.8	0.0	9.7	37.3
Latin America & Caribbean	42.0	47.0	0.0	11.0	5.9
Middle East & North Africa	2.7	40.5	42.1	14.7	21.6
North America	21.4	59.2	0.0	19.4	48.8
South Asia	0.0	84.4	0.0	15.6	13.2
Total (%)	21.9	56.3	4.9	16.9	191.8

7.3a. By origin region and portability regime, Change 2000 to 2013 (in percentage points)

Origin Region	Regime I (Portability)	Regime IIa (Exportability)	Regime IIIb (No Access)	Regime IVc (Informal)	Total (in million)
Africa	3.4	3.1	1.2	-7.7	3.4
East Asia & Pacific	-5.7	4.1	5.8	-4.3	15.9
Europe & Central Asia	7.7	-2.1	-0.5	-5.0	-2.9
European Union (EU27+)	8.3	-6.8	-0.7	-0.7	6.5
Latin America & Caribbean	4.4	0.3	-0.5	-4.2	12.4
Middle East & North Africa	-4.5	-2.3	7.2	-0.4	10.4
North America	-8.3	1.4	-0.5	7.5	1.0
South Asia	0.4	-16.3	14.6	1.4	13.7
Total (%)	1.4	-3.0	4.5	-2.9	60.6

7.3b. By destination region and portability regime, Change 2000 to 2013 (in percentage points)

Host Region	Regime I (Portability)	Regime IIa (Exportability)	Regime IIIb (No Access)	Regime IVc (Informal)	Total (in million)
Africa	2.9	3.6	-0.6	-6.0	-0.9
East Asia & Pacific	-2.8	9.6	-0.2	-6.6	9.4
Europe & Central Asia	8.0	-7.4	0.0	-0.6	-2.1
European Union (EU27+)	4.6	3.2	0.0	-7.8	16.6
Latin America & Caribbean	-2.6	0.4	0.0	2.1	3.3
Middle East & North Africa	-1.7	-17.3	13.3	5.8	21.0
North America	-5.7	8.7	0.0	-3.0	13.8
South Asia	0.0	-6.4	0.0	6.4	-0.6
Total (%)	1.4	-3.0	4.5	-2.9	60.6

Source: Authors' estimations

Table 6 reveals that high-income non-OECD and OECD countries lost some importance as countries of origin while they continued to gain significance as a destination group; this development is consistent with their advances in population ageing compared to all other income groups. As source countries, the low-income group gained importance while, as receiving countries, they lost ground together with the upper-middle-income country group; the latter also shows much lower intragroup migration. Table 6 offers more specificity.

These changes in the composition of origin and destination countries help explain why the progress in regime I was only modest. If the flow of migrants between countries with BSSAs decreases while the flow of migrants between countries without BSSAs increases, the share of migrants under the portability regime cannot rise even if the number of BSSAs increases.

The six panels in Table 7 present more fine-grained information by region about the state of benefit portability and its change between 2000 and 2013. The basic messages on portability regimes are the same, but the distribution across regions yields some interesting observations:

- Quite a bit of heterogeneity exists on the origin side across regions and portability regimes. For example, all sending regions except NAR (i.e. Canada, Mexico and the United States) have about equal numbers as regards sending migrants, while of the receiving regions, NAR is the dominant recipient, followed by the EU and MNA.
- Portability regimes are well present for migrants going to the EU and LAC (albeit at a much smaller number) but they are not present in the United States, where only a very small number of immigrants fall under the portability regime. Not surprisingly, in MNA the no access regime dominates for incoming migrants, while the significance of the portability regime for migrants is very low (accounting for 1 per cent of MNA's migrant stock).
- The observed status of mobility regimes in 2013 is accentuated by the developments since 2000. EAP, LAC, MNA and NAR all recorded few migrants under the portability regime, while only ECA, EU and AFR saw a positive change. This development is another explanation for the limited progress seen under the portability regime.

Table 8 and Table 9 respectively present migrants' transition matrices by region for 2013 in millions of migrants and for the change between 2000 and 2013 in percentage points of migrant shares in the individual years. A few observations stand out:

- The core migration takes place within regions (shown by the shaded diagonal values). Regional mobility is very high in most regions except NAR and LAC; most migrants from the latter head "north".
- Between 2000 and 2013, the transition matrices changed. In most cases, the change was manifested in small deviations in growth and a reduction in both

Table 8. *Migrants' transition matrix by region in 2013 (in millions)*

	Destination regions							
Source regions	AFR	ECA	EU27+	EAP	LAC	MENA	NAR	SAR
AFR	6.01	0.07	1.63	0.19	0.07	0.75	0.67	0.00
ECA	0.06	10.15	4.42	0.15	0.02	0.26	0.82	0.01
EU27+	0.30	1.14	8.70	1.32	0.46	0.22	2.68	0.02
EAP	0.04	0.15	1.40	7.31	0.11	1.91	4.48	0.49
LAC	0.00	0.00	1.94	0.31	2.49	0.03	10.96	0.02
MENA	0.04	0.30	2.91	0.16	0.03	6.31	0.85	0.02
NAR	0.03	0.01	0.42	0.26	0.57	0.08	0.51	0.02
SAR	0.08	0.02	1.33	0.71	0.01	8.56	1.58	4.43

Source: Authors' estimations

Table 9. *Migrants' transition matrix by region, change from 2000 to 2013 (in percentage points)*

	Destination regions							
Source regions	AFR	ECA	EU27+	EAP	LAC	MENA	NAR	SAR
AFR	−1.92	−0.06	0.14	0.05	0.04	0.29	0.16	−0.13
ECA	−0.40	−4.72	−0.16	−0.16	−0.04	−0.77	−0.05	−0.30
EU27+	−0.12	−0.35	1.65	−0.08	−0.17	−0.38	−1.11	−0.18
EAP	−0.07	−0.01	0.12	1.89	0.00	1.25	0.41	−0.22
LAC	−0.15	−0.19	0.60	0.00	0.59	−0.22	0.28	0.20
MENA	−0.28	0.08	0.04	−0.03	−0.02	2.43	0.10	−0.11
NAR	−0.01	−0.03	−0.01	0.04	0.17	0.01	−0.17	−0.01
SAR	−0.08	−0.14	0.21	0.17	−0.02	2.89	0.46	−1.39

Source: Authors' estimations.

directions, with two exceptions: in AFR, where the reception of migrants from all regions was negative, including within AFR; and in ECA, where the intraregional transition was highly negative. In contrast, the intraregional change was strongly positive for the EU, EAP, and MNA. The latter region also experienced a strong increase of migrants from SAR.

• This regional development provides confirmation of the two key changes among the portability regimes between 2000 and 2013: the modest increase in regime I (portability) reflects the further increase in inter-EU mobility moderated, inter alia, by reductions in the interregional mobility in ECA. The

Table 10. *Scenario estimates of the impact of BSSA introduction on regime distribution (in million)*

	Regime I (Portability)	Regime II (Exportability)	Regime III (No.access)	Regime IV (Informal)	Total
Actual BSSA estimation	16.81	26.40	14.39	2.97	60.57
BSSA 2000 scenario estim.	12.31	30.90	14.40	2.97	60.57
BSSA 2013 scenario estim.	13.19	30.02	14.39	2.97	60.57
Diff.: Actual-BSSA 2000	4.50	-4.50	0.00	0.00	0.00
Diff.: Actual-BSSA 2013	3.62	-3.62	0.00	0.00	0.00
Diff.: BSSA 2013-2000	0.88	-0.88	0.00	0.00	0.00

Source: Authors' estimations.

increased number of migrants in MNA coming from SAR and working mostly in the GCC are responsible for the increasing prevalence of regime III (no access).

The next section concludes by estimating the extent to which the new BSSAs established between 2000 and 2013 contributed to the change in the distribution of the portability regimes, essentially between regime I (portability) and regime II (exportability). Two alternative scenarios are calculated to measure the change between 2000 and 2013: "Scenario BSSA 2000" estimates the portability regime distributions in both years assuming no new BSSAs were introduced. "Scenario BSSA 2013" estimates the portability regime distributions in both years assuming the BSSAs in 2013 already existed in 2000.

Table 10 summarizes the results. Both scenarios deliver a smaller change in the number of migrants under regime I than the actual estimate. This makes the largest difference of 4.50 million migrants the upper estimate of the BSSA expansion effect. The lower estimate is the difference with the 2013 scenario, amounting to 3.62 million migrants. As the number of migrants under the actual estimation increased by 16.81 million, about 25 per cent of the portability regime change is due to enactment of new BSSAs, while 75 per cent of the change is simply the result of a larger stock of migrants between the two years.

Conclusions and policy implications

This article estimates how the rising stock of migrants is distributed over four key portability regimes at two different years: 2000 and 2013. This serves to establish status but also progress in the portability of social security benefits across the world. The results indicate a modest but noticeable increase in the share of migrants under the portability regime I, from 21.9 per cent in 2000 to 23.3 per cent in 2013, or a 1.4 percentage point rise. The biggest change occurred under the no access regime III, which doubled to 9.4 per cent. While workers under this regime pay no contributions and hence receive no benefits, at least their contributions are not lost, as can happen under regime II and also IV. The exportability regime II reduced its share of migrants by 3.0 percentage points but remains the dominant scheme (accounting for 53.2 per cent of migrants). The scope of informality regime IV reduced by 2.9 percentage points, accounting for 14.0 per cent of all migrants in 2013. Thus overall some progress can be claimed, but more may need to be done to progress on benefit portability. With still less than a quarter of migrant stocks falling under the portability regime, there would appear to be much room for improvement and the need for many more BBSAs; such a drive may still be useful but needs to be seen in perspective – methodologically and policy-wise:

First, measuring the share of individuals who accessed acquired rights from abroad rather than measuring the share of migrants living abroad under a BSSA may reveal more progress. Many more people have lived abroad over their lifetime than are measured at a single moment in time. And those people may have moved more often between countries with BSSAs. Longitudinal or at least comparable data about acquired and disbursed rights are not available for all countries. But even if higher access ratios were to be measured they may still indicate room for improvement, particularly for migrants from low-income countries.

Second, various hypothetical estimations served to identify the differentiated impact of changes in the flows of migrants between regional corridors from the impact of increased numbers of BBSAs between the years of estimation – 2000 and 2013. Three results stand out: The moderate overall progress under the portability regime I is due a reduction in migration in regions that have BSSAs, in particular OECD Member countries. Without that migrant reduction, the measured progress would be markedly higher. Second, the much higher absolute number of migrants under the portability regime is largely due to the further increase in migration, but a quarter of the effect is due to the introduction of new BSSAs between 2000 and 2003. Last but not least, the largest change took place under the no-access regime as it is prevalent in GCC countries and Hong Kong (China), Malaysia and Singapore where migrants ("expats") cannot contribute to the national scheme but can send their saved contributions home as remittances. This is not necessarily the worst portability regime option, but an in-depth analysis about the pros and cons compared to regimes I and II is missing.

Third, while initiating more BSSAs should be pursued, these agreements may not be the perfect solution under all circumstances. Most importantly, such bilateral agreements only make sense if the sending country has a well-functioning social security scheme itself and runs a developed-enough migration corridor with the receiving country. In their absence, with low coverage in the sending country, return workers will end up outside the scheme with no or limited access to rights acquired in the prior host country. And receiving countries typically have limited interest in investing in the resource-intensive development of a BSSA in a low migration density corridor unless historical links and/or geographic proximity are a feature.

One alternative approach is to work with receiving (typically richer) countries to instigate unilateral actions and to make eligible benefits fully (ex-)portable. Such an approach could go a long way and would be much easier and quicker to implement than the protracted negotiations of bilateral agreements. The other complementary approach is to redesign benefits to make them more easily portable (i.e. moving toward a financial or non-financial account-based scheme). Finally, for certain working migrants, an extension of multinational private sector schemes may offer a solution.

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APPENDIX

Table A1. *Change in income group by country from 2005 to 2017*

Country	2005 income group	2017 income group
Argentina	UMI	HI NOECD
Angola	LI	LMI
Antigua and Barbuda	UMI	HI NOECD
Bangladesh	LI	LMI
Chile	UMI	HI NOECD
Ghana	LI	LMI
Kenya	LI	LMI
Kyrgyzstan	LI	LMI
Lao PDR	LI	LMI
Lithuania	UMI	HI NOECD
Mauritania	LI	LMI
Myanmar	LI	LMI
Palau	UMI	HI
Paraguay	LMI	UMI
Russia	LMI	HI non-OECD
Seychelles	UMI	HI non-OECD
Solomon Islands	LI	LMI
St. Kitts and Nevis	UMI	HI non-OECD
Tajikistan	LI	LMI
Tonga	LMI	UMI
Uruguay	UMI	HI non-OECD
Venezuela	UMI	HI non-OECD
Zambia	LI	LMI

Notes: LI: low-income; LMI: lower-middle-income; UMI: upper-middle-income, HI NOECD: high-income non-OECD; HI OECD: high-income OECD countries.

Source: World Bank (2016).

Table A2. *Updates of BSSA matrix (from 2000 to 2013)*

Entry into force	BSSA	Entry into force	BSSA
2001	Australia–Canada	2009	Hungary–Serbia and Montenegro
2001	Austria–Australia	2009	Moldova–Bulgaria
2001	Bulgaria–Slovakia	2009	Bulgaria–Moldova
2001	Chile–United States	2009	United States–Poland
2001	Czech Republic–Netherlands	2009	Czech Republic–Japan
2002	Australia–Slovenia	2009	Belgium–Rep. of Korea
2002	Australia–Portugal	2009	Finland–Australia
2002	Bulgaria–Spain	2009	Belgium–Uruguay
2002	Peru–Chile	2009	Slovenia–Argentina
2003	Argentina–Netherlands	2009	Germany–India
2003	Andorra-Netherlands	2009	Poland–Canada
2003	Australia–Chile	2010	Cyprus–Syria
2003	Croatia Australia	2010	Serbia–Montenegro
2003	Bosnia–Turkey	2010	Austria–Bulgaria
2003	Czech Republic–Chile	2010	Spain–Ecuador
2003	Czech Republic–Turkey	2010	Moldova–Portugal
2005	Belgium–Croatia	2010	Portugal–Moldova
2005	Bosnia–Macedonia	2010	Bulgaria–Rep. of Korea
2005	Bulgaria–Hungary	2010	Poland–Rep. of Korea
2005	Czech Republic–Macedonia	2010	Austria–Rep. of Korea
2006	Switzerland–Australia	2010	Poland–Australia
2006	Belgium–Australia	2010	Spain–Japan
2006	Russia–Belarus	2011	France–Brazil
2006	Bosnia–Belgium	2011	Dominic Republic–Spain
2006	Bulgaria–Switzerland	2011	India–Luxembourg
2006	Bulgaria–Poland	2011	Macedonia–Australia
2006	Bulgaria–Cyprus	2011	Moldova–Romania
2006	Croatia–Bulgaria	2011	Switzerland–India
2006	Luxembourg–Turkey	2011	Denmark–India
2007	Bosnia–Slovenia	2011	Czech Republic–Australia
2007	Slovenia–Bosnia and Herzegovina	2011	Denmark–Rep. of Korea
2008	India–France	2011	Austria–Uruguay

(Continued)

Table A2 *Updates of BSSA matrix (from 2000 to 2013)* – Continued

Entry into force	BSSA	Entry into force	BSSA
2008	Finland–Chile	2012	Bosnia–Luxembourg
2008	Spain–Colombia	2012	Bulgaria–Canada
2008	Norway–Israel	2012	Moldova–Luxembourg
2008	Netherlands–Uruguay	2012	Serbia and Montenegro–Slovenia
2009	Belgium–India	2012	Slovakia–Australia
2009	United States–Czech Republic	2012	Slovenia–Serbia and Montenegro
2009	Ireland–Rep. of Korea	2012	Switzerland–Japan
2009	Serbia and Montenegro–Hungary	2013	Turkey–Yemen

Source: Information collected from the ILO NATLEX database.

Pension scheme fees and charge ratios in 44 countries: A comparative study

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Abstract Based on data received from pension supervisory authorities, the article reviews 85 different pension schemes in 44 jurisdictions by looking at fees and charges as well as their legal ceilings and their development since 2014. A key finding is the observed decrease in fees and caps. The article presents jurisdictions according to clusters, i.e. by groups of countries with identical or very similar items already covered by pension fees, and analyses the extent to which various cost and fee elements are covered by fees charged to members. Finally, we calculate charge ratios for each cluster to quantify the impact of fees and charges on pension savings. Occupational defined contribution pension schemes and personal plans linked to employment tend to be much more cost effective than personal schemes that have no direct employment link.

Keywords pension fund, regulation, pension scheme, governance, cost, saving, cost effectiveness, international

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Introduction

Fees and charges related to the process of saving for retirement are one of the most important factors affecting the final value of retirement income.[1] Proper information about the level and structure of fees and charges is crucial for the effective governance of pension plans. It is also valuable to the members of pension schemes, particularly of defined contribution (DC) and hybrid schemes where members face investment risks and need to take various decisions related to their retirement savings.

Countless studies have investigated the fees charged by pension funds from various perspectives, such as their level, transparency, impact on savers' decisions, etc. Therefore, we do not attempt in this study to provide an exhaustive literature review.[2] The recent low interest rate environment makes it even more important to scrutinize the costs of saving for retirement. Some recent research focus has therefore been directed to looking at investment costs and a comparison of investment performance in the light of regulations and incentives (e.g. Hamdani et al., 2017) or to methods to reduce costs, for example via auction systems (e.g. Kurach, Kuśmierczyk and Papla, 2017). More recently, the Organisation for Economic Co-operation and Development (OECD) has researched policy measures that were implemented in different jurisdictions to help align the fees levied by pension providers on scheme members, sponsors and employers with the cost of the services provided, and methods to improve the efficiency of retirement saving for members and sponsors (see Chapter 3 in OECD, 2018). The European Insurance and Occupational Pension Authority (EIOPA) has studied the fee structure in 26 jurisdictions (EIOPA, 2015).

This article updates and expands on the past studies undertaken by the International Organisation of Pension Supervisors (IOPS) in 2008 (Gomez and Stewart, 2008) and 2014 (Ionescu and Robles, 2014). Our study investigates 85 different pension schemes from 44 jurisdictions and provides data from the end of 2016 or 2017, depending on availability.

The goal of this article is twofold. First, we review the structure, level and types of fees and charges present in the surveyed IOPS jurisdictions. Second, we study the nature of costs incurred by pension savers in IOPS jurisdictions. In particular, we

1. For the purpose of this article, we define "fees" as the costs of services and expenditures paid by members explicitly; fees could be paid directly from members' contributions, accounts, assets, returns, etc. We define "charges" as the costs of services and expenditures paid by members implicitly; i.e. they are hidden or not immediately visible as they are deducted from assets. Charges therefore represent a sort of additional fee that members pay when saving for retirement. In some jurisdictions, these charges are calculated ex-post and disclosed to the members (e.g. Hong Kong (China), Republic of Korea as well as Chile – albeit for the latter this is not provided directly in the periodic information sent to members).
2. A good review of recent work on fees can be found in OECD (2018).

seek to learn more about all possible reductions that affect pension savings, i.e. i) types of costs/expenditures that are covered by the existing fees (paid directly or indirectly by members) and ii) charges that lower the value of invested assets.[3]

Owing to differences in the design of pension systems, it is difficult to compare fees and charges across jurisdictions. Although the article presents a number of "clusters" of jurisdictions that share similar fee characteristics, we need to recall that drawing conclusions based on international comparisons can be misleading. One of the methods the Australian Prudential Regulatory Authority (APRA) uses to support its comparison of fees and costs of pension funds that have widely different methods of charging is to require reporting on a "representative member" basis. This involves funds reporting fees, costs, tax expenses and insurance premiums on a hypothetical member basis, under simplifying assumptions such as holding the account balance fixed and with no other transactions occurring during the reporting period. Reporting on a representative member basis supplements broader reporting and disclosure of fees and costs by funds and is a significant aid to fund comparison. This can therefore be an example of an alternative method for comparing fees and charges, which can supplement blunter measures such as the aggregate reporting of fees and costs.

We use the data on fees and charges collected from the IOPS members during the 2017 OECD Global Pension Statistics exercise,[4] which covered private pension funds including occupational and personal, as well as mandatory and voluntary. The focus is placed on DC and hybrid plans. The next section presents fees charged in the surveyed IOPS jurisdictions and identifies changes that have taken place since the last IOPS working paper was published on this topic in 2014 (Ionescu and Robles, 2014). We then focus on the impact of fees on members' pension savings. We review to what extent fees paid by pension scheme members cover various cost items and calculate charge ratios as a measure for the impact of fees and charges on the final level of pension savings. We then offer concluding comments.

Fees charged in the surveyed IOPS jurisdictions

Current market average fees and maximum legally allowed fees

Table 1 summarizes how fees are charged in selected jurisdictions (see Appendix Table A.1 for asset-weighted market averages and maximum legally allowed fees

3. If charges are collected from the assets of scheme members and disclosed by pension funds, they are presented in Table 1.
4. See OECD Global Pension Statistics.

Table 1. *Fees charged by pension funds in selected jurisdictions (as of 2016 or 2017)*

Jurisdiction	Type of funds		Assets	Contributions	Returns	Salaries
Albania	Occupational DC plans		Y			
	Personal plans L		Y			
Armenia	Personal plans NL		Y			
Australia	Occupational DC plans		Y			
	Personal plans		Y			
Belgium	Occupational DC plans		Y	Y	Y	
	Personal plans L		Y	Y	Y	
	Personal plans NL: *Fonds d'épargne-pension Pensioenspaarfonds*		Y	Y	Y	
	Personal plans NL: *Branche 21*		Y	Y		
	Personal plans NL: *Branche 23*		Y	Y	Y	
Brazil	Occupational plans		Y	Y	Y	
Bulgaria	Occupational DC plans			Y	Y	
	Personal plans L	Universal pension funds	Y	Y		
		Professional pension funds	Y	Y		
		Voluntary pension funds	Y			Y
Chile	Personal plans L		Y			Y
Colombia	Occupational DC plans					Y
Costa Rica	ROP *(Regimen Obligatorio de Pensiones)*		Y			
Czech Republic	Personal plans – Transformed funds		Y		Y	
	Personal plans – Participation funds		Y		Y	
Estonia	2nd pillar		Y			
	3rd pillar		Y			
North Macedonia	Mandatory pension funds		Y	Y		
	Voluntary pension funds		Y	Y		
Ghana	Occupational DC plans		Y	Y	Y	Y
	Personal plans L		Y	Y	Y	
Hong Kong (China)	Mandatory Provident Fund (MPF)		Y			
Hungary	Occupational DC plans		Y	Y		
	Personal plans NL		Y	Y		
Iceland	Occupational plans					

(Continued)

Table 1. *Continued*

Jurisdiction	Type of funds		Assets	Contributions	Returns	Salaries
	Personal plans		Y			
India	Personal plans L		Y	Y		
	Personal plans NL		Y			
Ireland	Occupational plans		Y	Y		
	Personal plans (Standard PRSA)		Y	Y		
	Personal plans (Non-standard PRSA)		Y	Y		
Israel	DC plans		Y	Y		
Jamaica	Personal plans L		Y	Y		
Rep. of Korea	Personal plans L		Y			
Kosovo	Occupational DC plans		Y	Y	Y	
Latvia	Occupational DC plans		Y	Y		
	Personal plans L		Y			
	Personal plans NL		Y	Y		
Liechtenstein	Occupational DC plans		Y	Y		
Lithuania	Personal plans NL	2nd pillar	Y	Y		
		3rd pillar	Y	Y		
Maldives	Occupational DC plans		Y			
Mauritius	Occupational DC plans		Y			Y
Mexico	Personal plans L		Y			
Namibia	Occupational DC plans		Y		Y	Y
	Personal plans L		Y	Y	Y	
	Personal plans NL		Y	Y	Y	
Nigeria	Occupational DC plans		Y	Y		
Peru	Occupational DC plans	(a) Salary			Y	
		(b) Mixed		Y	Y	
	Personal plans L	Fund 0		Y		
		Fund 1		Y		
		Fund 2		Y		
		Fund 3		Y		
	Personal plans NL	Fund 0		Y		
		Fund 1		Y		
		Fund 2		Y		

(Continued)

Table 1. *Continued*

Jurisdiction	Type of funds	Assets	Contributions	Returns	Salaries
	Fund 3		Y		
Poland	Occupational DC plans	Y			
	Personal plans L	Y	Y	Y	
	Personal plans NL	Y	Y		
Portugal	Occupational DC plans	Y			
	Personal plans NL	Y			
Romania	Mandatory Personal plans	Y	Y		
	Voluntary Personal plans	Y	Y		
Russian Federation	Mandatory DC			Y	
	Voluntary Pension component		Y	Y	
Serbia	Occupational DC plans	Y	Y		
Slovakia	2nd pillar	Y	Y	Y	
	3rd pillar	Y		Y	
Slovenia (SMA)	Occupational DC plans	Y			
Slovenia (ISA)	Personal plans L	Y			
Spain	Occupational DC plans	Y			
	Personal plans NL	Y			
Suriname	Occupational DC plans		Y		
Sweden	Premium pension	Y			
Turkey	Personal plans L	Y	Y		
	Personal plans NL	Y	Y		
United Kingdom	Default funds	Y			
Uruguay	Personal plans L	Y			Y

Notes: L = plans linked to employment or professional activity; NL = plans not linked to employment or professional activity.
Sources: 2017 OECD Global Pension Statistics and IOPS Members and desk research.

in each jurisdiction). Schemes were classified, in line with the OECD typology, into three different categories:

- Occupational plans.
- Personal plans to which access can be linked (L) to employment or professional activity.

- Personal plans to which access is not linked (NL) to employment or professional activity.

The data shows that a large variety of types and levels of fees exist in the analysed jurisdictions. However, most commonly, fees are charged on assets. Of 85 different pension schemes in 44 selected jurisdictions, a majority (i.e. 77 schemes (91 per cent) in 41 jurisdictions) imposed fees on assets.[5] Other types of fees included those charged on contributions (22 jurisdictions, 47 per cent of schemes), returns (performances fees; 11 jurisdictions, 26 per cent of schemes), and salaries (7 jurisdictions, 9 per cent of schemes). In addition, some pension schemes imposed "less common" charges such as a transfer fee, redemption fee, entry fee, switching fee or exit fee. These fees are mostly expressed in fixed terms.

Thus, there are four main components on which funds could charge fees: i) assets, ii) contributions, iii) returns and iv) salaries. In total, 35 pension schemes (42 per cent of the sample) charged fees on one component only; either on assets, contributions, returns or salaries.[6] Whereas 36 schemes (43 per cent) applied fees charged on two different components, and 12 schemes (14 per cent) charged fees on three components. One pension scheme reported imposing fees on all four components. In one jurisdiction (Iceland, in the case of occupational plans), the number of fees varied depending on the scheme, making it hard to classify these according to our groups. Care needs to be taken when analysing these results because the number of components on which fees are charged does not directly imply the pension scheme is cost effective. Rather, effectiveness is concerned with different characteristics (such as the level of market competition, transparency, maturity of the capital market, degree of regulation) and the nature and purpose of each pension scheme.

In our study, 29 jurisdictions (66 per cent) had legal caps on fees (see Appendix Table A.1 for more details). In most cases, the average fees do not equal the cap, which could be a positive effect of market competition. However, the difference between the cap and the actual level may also be insignificant. To verify whether this might be the case for our data, we analysed a sub-sample where both average fees and legal caps were available and comparable, which revealed that the average fees were lower than the legal caps by at least 10 per cent in 60 per cent (i.e. 26 out of 43) of the schemes. This suggests that in 40 per cent of the cases, pension providers tended to anchor their fees to the legal caps.

5. Data for four non-IOPS Members (Latvia, Slovenia, Sweden and Uruguay) are included in this analysis.
6. For simplicity, here we do not consider "others fees" when calculating these numbers.

Changes in average fees compared to 2014

Table 2 provides a summary of fees charged recently as compared to those from the 2014 study (Ionescu and Robles, 2014). All 22 jurisdictions that participated in both the 2014 and current studies kept their fee structures unchanged. We

Table 2. *Comparison of fees charged by pension funds*

Country	Type of funds		Current study 2019[a]			Study from 2014[b]		
			Based on	Legal cap (%)	Average (%)	Based on	Legal cap (%)	Average (%)
Albania	Occupational DC plans		Assets	3	2.1	Assets	3	2.4
	Personal plans L							
Bulgaria	Personal plans L	UPF& PPF	Contributions	4.5	4.23/ 4.19[c]	Contributions	5	4.97
			Assets	0.85	0.85	Assets	1	1
		VPF	Contributions	7	2.4	Contributions	7	2.75
			Returns	10	8.9	Returns	10	9.43
Chile[d]	Personal plans L		Salaries	-	1.27	Salaries	-	1.42
Colombia	Occupational DC plans		Salaries	3	-	Salaries	1.31	-
Costa Rica	ROP		Assets	0.5	0.49	Assets	1.1	-
Czech Republic	Transformed funds		Assets	0.8	-	Assets	0.6	0.6
			Returns	10	-	Returns	15	15
	Participation funds		Assets	1.0/ 0.4[e]	-	Assets	0.6	0.6
			Returns	15/10[e]	-	Returns	15	15
North Macedonia	Mandatory pension funds		Contributions	3	3	Contributions	4	4
			Assets	0.48[f]	0.43	Assets	0.54	0.54
Ghana	Occupational DC plans		Assets	2.5	2.2	Assets	2.5	-
	Personal plans				2.0			
Hong Kong (China)	Mandatory Provident funds		Assets	-	1.56	Assets	-	1.7
Hungary	Personal plans NL		Contributions	6	4.9	Contributions	6	4.72

(Continued)

Table 2. *Continued*

Country	Type of funds	Current study 2019[a]			Study from 2014[b]		
		Based on	Legal cap (%)	Average (%)	Based on	Legal cap (%)	Average (%)
		Assets	0.8	0.5	Assets	0.8	0.47
Israel	DC Plans	Contributions	6	2.51	Contributions	6	3.8
		Assets	0.5	0.25	Assets	0.5	0.33
Rep. of Korea	Personal plans L	Assets	-	0.45	Assets	-	0.70
Lithuania	Personal plans NL (2nd pillar)	Contributions	0.5	0.05	Contributions	2	1.86
		Assets	0.65/1.0[g]	0.89	Assets	0.65/1.0[g]	0.65/0.99[g]
Mexico	Personal plans L	Assets	-	1.06	Assets	-	1.19
Poland	Personal plans L	Contributions	1.75	1.55	Contributions	3.5	3.5
		Assets	0.54	0.48	Assets	0.6	0.46
		Returns	0.06[h]	0.031[h]			
Romania	Mandatory Personal plans	Contributions	2.5	2.5	Contributions	2.5	2.5
		Assets	0.6	0.6	Assets	0.6	0.6
	Voluntary Personal plans	Contributions	5	2.78	Contributions	5	4.58
		Assets	2.4	1.85	Assets	2.4	1.79
Russian Federation	Mandatory DC	Returns	15	-	Assets[i]	0.4 (as an equivalent of all types of fees)	-
	Voluntary Pension Component	Contributions	3	-			
		Returns	15	-			
Serbia	Occupational DC plans	Contributions	3	1.95	Contributions	3	2.01
		Assets	2	1.95	Assets	2	1.99
Slovakia	2nd pillar	Contributions	1.25	1.25	Contributions	1.25	1.25
		Assets	0.3	0.3	Assets	0.3	0.3
		Returns	10	7.22	Returns	10	10
	3rd pillar	Assets	0.8/1.6[j]	1.44	Assets	0.9/1.8[j]	0.9/1.8[j]
		Returns	10	1.14	Returns	10	10
Spain	Occupational DC plans	Assets	1.5/0.25[k]	0.18/0.03[k]	Assets	2	0.21
	Personal plans NL	Assets	1.5/0.25[k]	1.11/0.14[k]	Assets	2	1.39
Turkey	Personal plans L	Contributions	-	0.24	Contributions	2	-
		Assets	-	1.64	Assets	1.09/2.28[l]	2

(Continued)

Table 2. *Continued*

Country	Type of funds	Current study 2019[a]			Study from 2014[b]		
		Based on	Legal cap (%)	Average (%)	Based on	Legal cap (%)	Average (%)
	Personal plans NL	Contributions	-	1.2	Contributions	2	-
		Assets	-	1.64	Assets	1.09/2.28[l]	2
United Kingdom	Default funds	Assets	0.75	-	Assets	1.5	-

Notes: L = plans linked to employment or professional activity; NL = plans not linked to employment or professional activity.
[a]The numbers are based on data from 2016 or 2017, depending on the jurisdiction.
[b]The numbers are based on data from 2010, 2011, 2012 or 2013, depending on the jurisdiction.
[c]4.23% is an average fee of UPF and 4.19% is an average fee of PPF.
[d]There are no fees charged to members on assets but pension providers deduct directly from pension funds the investment expenses related to indirect investment transactions (such as for mutual funds and other investment vehicles, both domestic and offshore). This is not included in this comparison.
[e]Exception for mandatory conservative funds.
[f]Monthly fee of 0.04%.
[g]Conservative funds/funds other than conservative funds.
[h]Fee is charged on assets, even if based on rates of return.
[i]In 2010, fees were charged on returns for Mandatory DC, as well as contributions and returns for Voluntary personal plans, but the total value of fees was transferred on as a proportion of assets under management.
[j]Pay out supplementary pension funds/contributory pension funds.
[k]Managing entity fee/custodian fee.
[l]Liquid funds/stock funds. The maximum fees on assets of other funds are included in this range.

Source: IOPS data.

analysed pension schemes from 14 of those 22 jurisdictions for which we had sufficient data for both studies.

The main trend is that average fees and fee caps decreased. In some jurisdictions, different fees changed in different directions, which could have an offsetting effect. There were only three clear-cut cases where average fees increased, but those increases were not substantial. Specifically, this was the case for Hungarian personal plans NL (fees charged on contributions increased from 4.7 per cent to 4.9 per cent and fees on assets increased from 0.47 per cent to 0.5 per cent), Polish personal plans type L (fees charged on assets increased from 0.46 per cent to 0.51 per cent), and Romanian voluntary personal plans (fees charged on assets increased from 1.79 per cent to 1.85 per cent; but fees on contributions fell from 4.58 per cent to 2.78 per cent). Eight countries lowered their fee caps (Bulgaria, Costa Rica, Lithuania, North Macedonia, Poland, Slovakia, Spain and the United Kingdom), whereas it increased in one (Columbia). Six jurisdictions (Albania, Ghana, Hungary, Israel, Romania and Serbia) did not change their fee caps. The remaining seven jurisdictions reported no legal caps or it was difficult to compare the changes due to different levels of information available for 2014 and 2019.

Total member reductions of pension savings in the surveyed IOPS jurisdictions

Costs/expenditures that are covered by fees

The aim of this section is to identify which costs and expenditures are explicitly covered by fees, and which are not (i.e. charges). Costs and expenditures not covered by fees implicitly lower the value of pension contributions and/or assets. Responding pension supervisors were therefore requested to provide, as granularly as possible, the list of costs and expenditures that were covered by fees.

The fee figures reported by different pension systems in Table 1 might not cover all the costs and expenditures paid by pension scheme members, either explicitly or implicitly. The direct comparison of fees and charges across jurisdictions may lead to inaccurate conclusions due to various reasons. One can be the different coverage of pension fees in each jurisdiction. For this reason, in Table 3 we present jurisdictions by "clusters", i.e. by groups of countries with identical or very similar items already covered by pension fees. We tentatively sorted them in descending order, from cluster A (being the most comprehensive) to cluster E (the least comprehensive), according to the extent to which the underlying data incorporate the full range of fees, charges and expenses that ultimately affect member benefits.

Cluster A groups 8 jurisdictions (10 schemes) with fees covering all or almost all of the following elements: administration fees, investment management fees, custodian fees, investment transaction costs, guarantee fees and others. Cluster B relates to 7 jurisdictions (7 schemes) with fees coverage similar to A, but without investment transaction costs. Cluster C relates to 10 jurisdictions (10 schemes) with fees coverage similar to A, but without investment costs of the underlying funds (i.e. without including the cost of indirect investment). Cluster D groups 8 jurisdictions (8 schemes) with coverage similar to C, but without custodian fees or investment costs of the primary funds. Some of these jurisdictions included investment transaction costs and guarantees in fees charged to their members. Cluster E covers 3 jurisdictions (4 schemes) where fees, as compared to cluster D, do include custodian fees and investment transaction costs but do not cover administration costs.

Undoubtedly, the ordering in Table 3 is somewhat discretionary as it relies on subjective assessment. However, due to the diversity of costs and expenditures in the countries, it seems impossible to design a more "scientific" approach.

Accordingly, countries in cluster A have fees that are the most inclusive of a typical (yet not exhaustive) list of costs related to saving for retirement. One can therefore assume that the charge ratio that will be calculated for these jurisdictions will provide a reasonably accurate reflection of how much the assets

Table 3. *What do pension plan members pay for in their fees? Cost and fee elements covered in fees charged to members*

Jurisdiction	Plan/scheme administration fees	Investment management fees, for:		Custodian fees	Investment transaction costs	Guarantee fees	Cluster
		Primary funds only	Underlying funds				
Namibia	●	●	●	●	●	●	A
Poland	●	●	●	●	●	●	
Russian Federation	●	●	●	●	●	●	
Belgium *(Fonds d'épargne-pension-Pensioen-spaarfonds)*	●	●	●	●	●		
Belgium (*Branche 21* life insurance operated by an insurance company)	●	●	●		●		
Belgium (*Branche 23* life insurance operated by an insurance company)	●	●	●	●[a]	●		
Australia	●	●[b]	●[b]	●	●		
Ghana	●	●	●	●	●		
Serbia	●	●	●		●		
Jamaica[c]	●	●	●		●		
Hong Kong (China)	●	●	●	●		●	B
Liechtenstein	●	●	●	●			
India	●	●	●	●			
Rep. of Korea	●	●	●	●			
Nigeria	●	●	●	●			
Mauritius	●	●	●				
Bulgaria	●	●	●				

(Continued)

Table 3. *Continued*

Jurisdiction	Plan/scheme administration fees	Investment management fees, for:		Custodian fees	Investment transaction costs	Guarantee fees	Cluster
		Primary funds only	Underlying funds				
Peru	●	●		●	●	●	C
Chile	●	●		●	●	●	
Romania (2nd pillar)	●	●		●	●	●	
Mexico	●	●		●	●		
Slovakia (2nd pillar)	●	●		●	●		
Latvia[d] (voluntary pensions)	●	●		●	●		
Portugal[e]	●	●		●	●		
Turkey	●[f]	●[g]		●	●		
Hungary	●	●		●			
Slovenia	●	●					
Romania (3rd pillar)	●	●				●[h]	D
North Macedonia[i]	●	●					
Albania[j]	●	●					
Ireland	●	●					
Colombia	●	●					
Spain	●			●			
Costa Rica[k]	●						
Israel	●						
Slovakia (3rd pillar)		●		●	●		E
Latvia[l] (mandatory pensions)		●		●	●		
Czech Republic (Transformed funds)		●[m]		●	●		
Czech Republic (Participation funds)		●[m]		●	●		

Notes: A cell marked with ● means that the item is included in the charge ratio calculations. A blank cell means that the item is not included in the charge ratio calculations. A crossed cell means that the item is not applicable in the jurisdiction.

[a]Look-through approach.
[b]Investment management fees for underlying funds are not always charged to members as fees and can represent indirect costs.
[c]The types of fees identified above represent the fees charged by Asset Managers and Administrators to funds and schemes in the Jamaican private pension industry.
[d]"Occupational DC plans" and "Personal plans NL" are included in voluntary pensions.
[e]The answer is based on the main costs and fees that are foreseen in the national legislation/regulations. The costs and fees which are effectively charged, as well as who has borne those costs and fees in the case of occupational plans, have to be analysed on a case-by-case basis.
[f]It includes entrance fees, administration expenses fees and administrative expenses fees in the case of a contribution holiday. Only one joint cap is applied for these fees, which can be used during the first 5 years of the contract. It is determined as 8.5% of the monthly gross minimum wage for each year in the first 5 years.
[g]Investment management fees for primary funds include the custodian fees and investment transaction costs.
[h]Where available.
[i]Investment management fee is a monthly fee from the value of the net assets of the pension fund. The fee is calculated on each valuation date of the pension fund assets, and it is charged from the asset of the pension fund on the fifth working day in the month after the valuation. The custodian fees are paid directly by the pension company from its own assets and the fees are listed in the contract between custodian and the pension company. The transaction fees related to transactions of acquisition or transfer of the assets of the pension fund are paid from the assets of the pension fund. Switching fees are in the fixed amount and are paid directly by the member if the person is a member in a mandatory (voluntary) pension fund for less than 24 months (12 months for a voluntary pension fund).
[j]The management fee covers both administration and investment costs. Pension plan members pay a switching fee and early withdrawal fee, whereas pension management companies pay an audit fee, marketing fee, legal fee, etc.
[k]The information only refers to the main complementary pension scheme (ROP) in the second pillar. Even though investment fees (i.e. invest in mutual funds or ETFs) and investment transaction costs are not included in the charge ratio calculation, those costs are paid by the fund because the fund records the net return in these instruments.
[l]"Personal plans L" is included in mandatory pensions.
[m]Investment management fee has to be used to cover the above-mentioned custodian fees and investment transaction costs as well as commissions for intermediaries, cost of advertising and fees to the bank.

Source: Authors' analysis.

accumulated by members are being reduced by fees, as well as by direct and indirect charges and expenses. In contrast, countries in cluster E have the least inclusive fees because plans/schemes' administration fees, investment management fees for underlying funds, and guarantee costs would not be taken into account when calculating the charge ratios for these jurisdictions.

Some of the substantial costs in surveyed IOPS jurisdictions were not covered by fees. These can include asset management costs of indirect investments (i.e. the underlying fund management fees) and investment transaction costs such as bid-ask spreads and brokerage fees. These charges reduce accumulated pension savings. In the Australian system, for the default MySuper products (representing 24 per cent of total pension assets), an Indirect Cost Ratio (ICR) for known indirect costs reported to the APRA ranges from 0–1.2 per cent with a median of 0.5 per cent of assets for a representative member with a balance of 50,000 Australian dollars (AUD). This ratio largely reflects investment-related costs. However, indirect costs incurred by some underlying managers in Australia are not quantified and may not be reported.

It is noteworthy that the large majority of responding supervisors do not know the quantified, possible impact of charges, i.e. the costs and expenditures charged beyond the fees. This finding makes the case for pension supervisors to take steps to improve the information they collect regarding the costs and expenditures that are – and are not – included in fees paid by members.[7] Supervisors should also assess the role of these items in reducing members' pension savings.

Charge ratios

The charge ratio is an indicator of the administrative fees charged on individual retirement accounts that has proven to be useful in international cost comparisons. We calculate charge ratios in line with the methodology developed previously (Ionescu and Robles, 2014).

The charge ratio measures the impact that any type of charge can have on the final balance of an individual retirement account compared to the hypothetical balance that could be obtained if no fees were charged at all.[8] For example, a charge ratio for a 40-year horizon shows how much higher pension savings would have been at the end of a 40-year saving period had there been no fees charged to the pension scheme member.

We used annual data for calculations. This is a theoretical exercise, since we projected the future balance under the assumption that current commissions would be maintained for a 40-year period. The only exception is when a country has set a legislated timeline to reduce fees in the future. This is the case for several countries. The yearly legal cap in Costa Rica (currently 0.5 per cent) will be lowered to 0.35 per cent from 2020, in North Macedonia it was lowered in 2017 from 0.48 per cent to 0.42 per cent, and further reduced to 0.36 per cent from 2019. North Macedonia's legal cap on contributions was also lowered from 3 per cent to 2.75 per cent in 2017 and to 2.5 per cent in 2018, and further gradually reduced to 2.25 per cent in 2019, and 2.0 per cent in 2020. In Latvia, a legal cap on assets was lowered across 2018 from 1.5~2.0 per cent to 1.03~1.5 per cent and to 0.85~1.1 per cent in 2019.

7. For example, in Australia, the Australian Superannuation and Investments Commission (ASIC) is working to achieve greater transparency of disclosure of these types of costs through the introduction of *Regulatory Guide 97: Disclosing fees and costs in PDSs and periodic statements*. The Australian Prudential Regulation Authority (APRA) is reviewing its reporting framework to improve the collection of more detailed information on expense transactions to improve transparency. However, the APRA noted that achieving enhanced transparency and, importantly, consistency of fees and cost disclosures across trustees has proved challenging owing to the complexity of business operations across the Australian market.

8. See Appendix 1 of the IOPS working paper by Gomez and Stewart (2008), which provides a more detailed description of the methodology.

The assumed real rate of return is a standard, but possibly questionable, assumption of what a DC pension scheme should yield on average in the long run. Moreover, it does not represent necessarily the historical rate of return for any specific national system. To reflect the current low interest rate environment, the real rate of return was set at 3 per cent in the modelling (i.e. 2 percentage points lower than the 2014 IOPS study). A sensitivity test was performed to check the impact of changing the real rate of return. The exercise assumed a 100 per cent contribution density and a zero starting account balance. The result is independent of the wage level.

A number of caveats associated with charge ratios should be spelt out clearly:

- Some of the cost elements might be omitted, leading to charge ratios being underestimated for some jurisdictions (cluster E has a much greater possibility of such underestimation than cluster A in Table 3);
- Pension system design (including fee structure) varies greatly from country to country, and differences across pension jurisdictions may have an impact on fees and charges;
- The effect of absolute fees may vary depending on the rate of return assumed;
- The level of fees is related to the asset allocation profile. Thus a "cheap" system (expressed either in terms of low fees or charge ratios) does not necessarily imply that the absolute value of the ultimate retirement pot will be higher than in an "expensive" system that offers much higher rates of return;
- The charge ratio does not take into account the quality of services provided by service providers to scheme members (e.g. value for money);
- The impact of the charge ratio varies depending on the fee structure. For instance, a longer projection period will tend to show a relatively higher charge ratio for systems charging asset-based fees than those systems charging contribution fees.

Table 4 shows the results of the 2018 charge ratio calculations.[9] Projections of retirement income are based on a 40-year time span; but since in some countries 40 years may not be representative of actual contribution patterns, the same calculations were run for 30-year and 20-year horizons. Obviously, in those cases, the calculated charge ratio was smaller as the accumulation period was shorter (less is paid in fees and charges over a shorter period). In some pension schemes (i.e. Peru Occupational DC plans/Salary; Suriname Occupational DC plans), the charge ratio is the same regardless of the time horizon because no fees are charged on assets in those jurisdictions. In those cases, the charges paid by an individual did not depend on how much had been accumulated over the working-life period.

9. The numbers are based on data from 2016 or 2017, depending on the jurisdiction.

Table 4. *Charge ratio calculation (2019, real rate of return 3%)*

Cluster	Country	Pension Scheme		Projection period (%) 40y	30y	20y	# of fee components
Cluster A	Poland*	Personal plans L		12.7	9.8	6.9	2
	Australia	Occupational DC plans		13.0	9.6	6.2	1
		Personal plans NL		26.2	19.8	13.2	1
	Serbia	Occupational DC plans		37.2	29.1	20.5	2
	Average of cluster A			**22.3**	**17.0**	**11.7**	
	Median of cluster A			**19.6**	**13.3**	**10.1**	
Cluster B	Hong Kong (China)*	Mandatory Provident Fund (MPF)		30.2	23.0	15.5	1
	Liechtenstein	Occupational DC plans		10.2	7.9	5.8	2
	India	Personal plans L		0.7	0.5	0.4	2
	Rep. of Korea	Personal plans L		10.1	7.4	4.8	1
	Nigeria	Occupational DC plans		39.9	31.1	21.4	2
	Mauritius	Occupational DC plans		16.6	13.3	10.1	2
	Bulgaria	Occupational DC plans		10.3	8.6	6.9	2
		Personal plans L	UPF	21.5	17.1	12.7	2
			PPF	21.5	17.0	12.7	2
			VPF	8.2	6.6	5.1	2
	Average of cluster B			**18.7**	**14.7**	**10.6**	
	Median of cluster B			**16.6**	**13.3**	**10.1**	
Cluster C	Peru*	Occupational DC plans	a) Salary	15.8	15.8	15.8	1
			b) Mixed	29.6	23.8	18.0	2
		Personal plans L	Fund 0	17.1	12.7	8.3	1
			Fund 1	23.8	17.9	11.9	1
			Fund 2	32.9	25.2	17.1	1
			Fund 3	37.0	28.6	19.6	1
		Personal plans NL	Fund 0	17.1	12.7	8.3	1
			Fund 1	23.8	17.9	11.9	1
			Fund 2	32.9	25.2	17.1	1
			Fund 3	37.0	28.6	19.6	1
	Chile	Personal plans L		17.7	13.1	8.6	2
	Romania*	Mandatory personal plans		15.3	12.0	8.7	2

(Continued)

Table 4. *Continued*

Cluster	Country	Pension Scheme	Projection period (%) 40y	30y	20y	# of fee comp-onents
	Mexico	Personal plans L	21.9	16.4	10.9	1
	Slovakia	2nd pillar	12.4	9.5	6.6	3
	Portugal	Occupational DC plans	6.9	5.0	3.2	1
		Personal plans NL	20.8	15.6	10.3	1
	Turkey	Personal plans L	31.6	24.2	16.4	2
		Personal plans NL	32.2	24.9	17.2	2
	Hungary	Personal plans NL	15.5	12.7	10.0	2
	Slovenia	Personal plans L	20.4	15.3	10.1	1
	Average of cluster C		**23.1**	**17.8**	**12.5**	
	Median of cluster C		**21.3**	**16.1**	**11.4**	
Cluster D	Romania*	Voluntary personal plans	36.3	28.6	20.3	2
	North Macedonia	Mandatory pension funds	10.1	8.0	5.9	2
		Voluntary pension funds	20.4	15.8	11.3	2
	Albania	Occupational DC plans, Personal plans L	38.0	29.4	20.2	2
	Spain	Occupational DC plans	4.9	3.5	2.3	1
		Personal plans NL	25.2	19.0	12.7	1
	Costa Rica	ROP *(Régimen Obligatorio de Pensiones)*	8.0	5.9	3.8	1
	Israel	DC Plans	8.1	6.6	5.1	2
	Average of cluster D		**18.9**	**14.6**	**10.2**	
	Median of cluster D		**15.2**	**11.9**	**8.6**	
Cluster E	Slovakia	3rd pillar	28.8	21.9	14.7	2
	Latvia	Personal plans L	22.6	17.0	11.3	1
	Average/Median of cluster E		**25.7**	**19.4**	**13.0**	
Others (unclassified)	Brazil	Occupational plans	14.2	12.3	10.4	2
	Iceland	Occupational plans	4.6	3.4	2.2	1
		Personal plans	11.1	8.2	5.3	1
	Kosovo	Occupational DC plans	31.4	24.6	17.5	2
	Suriname	Occupational DC plans	10.0	10.0	10.0	1
	Uruguay	Personal plans L	16.8	16.7	16.6	2
	Average of others		**14.7**	**12.5**	**10.3**	
	Median of others		**12.7**	**11.1**	**10.2**	

Notes: Figures in (*) are as of 2017 while others are as of 2016. L = plans linked to employment or professional activity; NL = plans not linked to employment or professional activity.

Source: Authors' analysis.

Based upon the information shown in the above section on *Current market average fees and maximum legally allowed fees,* jurisdictions were grouped into clusters A–E reflecting the charge ratio calculations. The allocations to the different clusters depended on the degree to which the fees charged to members covered the cost and fee elements. Three countries (4 schemes) were listed in "cluster A", where cost and fee elements were mostly covered by fees charged to the members, followed by seven jurisdictions (10 schemes) in "cluster B", nine (20 schemes) in "cluster C", six (8 schemes) in "cluster D", and two countries (2 schemes) in "cluster E". In addition, five countries (6 schemes) were listed under the category "Others" because there was insufficient information regarding cost elements covered by fees to classify these into clusters.

The average charge ratios are 22.3 per cent (cluster A), 18.7 per cent (cluster B), 23.1 per cent (cluster C), 18.9 per cent (cluster D), 25.7 per cent (cluster E), and 14.7 per cent (Others). In the case of cluster B, the data from India (0.7 per cent) was excluded since it could have been considered an outlier and therefore could have distorted the result for the relatively small group. If India was included, the average charge ratio for cluster B would have changed to 16.9 per cent. Since samples were small for each cluster, and as fee structures differed by jurisdictions, we found no clear signs that charge ratios decreased from cluster A to cluster E. Nevertheless, the charge ratios for clusters C, D and E were very likely to be underestimated. This is because fees charged in these jurisdictions covered fewer important cost and fee elements.

Average charge ratios may have been affected by the number of fee components, as the average charge ratio for pension schemes with one fee component (assets/ contribution/returns/salary) was 19.7 per cent (24 schemes), while the average charge ratio with two components was 21.8 per cent (24 schemes).[10] One pension scheme (Slovakia 2nd pillar) charged fees on three components and its average charge ratio was 12.4 per cent. As compared with pension schemes with one fee component, the charge ratios for schemes with two fee components seemed high, but the difference was not considerable relative to the differences in charge ratios in each type of scheme.

One can observe a clearer difference in the average charge ratio when comparing different types of pension schemes. The average charge ratio for "Occupation DC plans" and "Personal plans L" were 18.8 per cent (12 schemes) and 19.7 per cent (16 schemes), respectively, while the average charge ratio for "Personal plans NL" was 23.1 per cent (10 schemes). The average charge ratio for pension schemes that could not be categorized into any of the above categories was 19.2 per cent

10. If India was included, the average charge ratio for pension schemes with two fee components would have been 21.0 per cent.

(11 schemes).[11] The results suggest that Occupational DC pension schemes and Personal plans linked (L) to employment tend generally to be more cost effective than the personal schemes with no direct link (NL) with employment. In Australia, another important distinction is the difference between the default (MySuper) products and the broader environment in which members exercise a choice to choose more complicated products. Such products have more complex fee structures. The APRA also noted that defined benefit funds are usually examined separately given that fees do not affect the final balance members receive for any defined benefit component.

Table 5 compares historical charge ratio trends. We used a real rate of return of 5 per cent instead of 3 per cent to reflect historically higher rates of return. One can observe that the charge ratio dropped or was unchanged in 78 per cent (18 out of 23) of the cases (schemes) when compared to 2014, with only a few exceptions. This result is in line with the trend of falling average fees in most of the countries analysed in the section on *Current market average fees and maximum legally allowed fees.*

We also performed four different sets of sensitivity analysis (independent variables: real rate of return, fees on assets, fees on contributions, fees on performance) to compare their impacts on the charge ratio. We varied return by ±2 pp (percentage points). For fees on assets, contributions and performance, values were set as of one quarter (25 per cent) of the average fee in each component (i.e. fees on assets: ±0.25 pp; fees on contributions: ±0.75 pp; fees on performance: ±2.5 pp).

Table 6 shows that the charge ratios increased as the independent variables increased. For instance, the charge ratio increases by 1.9 pp on average if the real rate of return increases by 2 pp. This is because higher returns mean bigger opportunity costs.

Given the current low interest rate environment and, in consequence, the assumed base return of 3 per cent, varying the return had a relatively small impact on charge ratios. That is to say, a 2 pp decrease in return (3 per cent to 1 per cent) affected the ratio by less than 5 pp in all pension schemes (on average: -2.1 pp).

For the sensitivity analysis of the different fee structures, the biggest impact was observed when changing the fees on assets (+4.4 pp, -4.6 pp), followed by the fees on returns (i.e. performance) (+1.3 pp, -1.3 pp) and the fees on contributions (+0.6 pp, -0.7 pp). For the sensitivity analysis, the average impact on the charge ratio was higher when fees decreased compared to when they increased. This may create higher incentives for jurisdictions to lower the fees charged to members.

11. If India was included, the average charge ratio for pension schemes categorized in “Others” would have been 17.6 per cent.

Table 5. *Historical trends of charge ratio (real rate of return 5%) in percentage*

Cluster	Country	Pension scheme		2019[a]	2014[b]	2008[c]
Cluster A	Poland*	Personal plans L		13.8	14.4	18.7
	Serbia	Occupational DC plans		40.0	29.3	37.5
Cluster B	Hong Kong (China)*	Mandatory Provident Fund (MPF)		32.7	35.0	36.4
	India	Personal plans		0.7	6.35	n/a
	Rep. of Korea	Personal plans L		11.0	16.5	n/a
	Bulgaria	Personal plans L	UPF	23.1	26.5	26.5%
			PPF	23.0		
			VPF	12.6	13.4	n/a
Cluster C	Chile	Personal plans L		19.2	14.2	17.4
	Romania*	Mandatory Personal plans		16.5	16.5	n/a
	Mexico	Personal plans L		23.8	29.7	31.6
	Slovakia	2nd pillar		16.4	19.2	19.0
	Turkey	Personal plans L		34.2	39.6	45.9
		Personal plans NL		34.8		
	Hungary	Personal plans NL		16.5	15.6	22.6
Cluster D	Romania*	Voluntary Personal plans		39.1	38.5	n/a
	Albania	Occupational DC plans		41.0	45.1	n/a
	Spain	Occupational DC plans		5.32	5.32	n/a
		Personal plans NL		27.4	29.8	n/a
	Costa Rica	ROP *(Régimen Obligatorio de Pensiones)*		8.7	9.1	21.1
	Israel	DC Plans		8.6	11.7	13.7
Cluster E	Slovakia	3rd pillar		31.6	43.5	n/a
	Latvia	Personal plans L		24.6	39.6	n/a

Notes: L = plans linked to employment or professional activity; NL = plans not linked to employment or professional activity.
[a]The numbers are based on data from 2016, 2017, depending on the jurisdiction. Figures in (*) are as of 2017 while others are as of 2016.
[b]The numbers are based on data from 2010, 2011, 2012 or 2013, depending on the jurisdiction.
[c]The numbers are based on data from 2006, 2007 or 2008, depending on the jurisdiction.

Source: Authors' analysis.

Table 6. *Sensitivity analysis of charge ratio*[1]

Independent variable	Shock level		Base (Average)	Impact (Average)[2]	
	Up	Down		Up	Down
Real rate of return	+2.00 pp	-2.00 pp	21%	+1.90 pp	-2.10 pp
Fees on assets	+0.25 pp	-0.25 pp		+4.40 pp	-4.60 pp
Fees on contributions	+0.75 pp	-0.75 pp		+0.60 pp	-0.70 pp
Fees on performance	+2.50 pp	-2.50 pp		+1.30 pp	-1.30 pp

Notes: [1]Charge ratio for India (0.7%) was not included in the sensitivity analysis since it was an outlier and may distort the result for the small sample size in the analysis.
[2]Average impact was calculated for the pension schemes where the change of variable was possible in the negative shock.

Source: Authors' analysis.

Conclusions

This article has reviewed fees charged in 85 different pension schemes in 44 selected jurisdictions. Fees on assets were charged in 77 (or 91 per cent of) schemes in 41 jurisdictions, on contributions in 22 jurisdictions (47 per cent of schemes), on returns (i.e. performances fees) in 11 jurisdictions (26 per cent schemes), and on salaries in 7 jurisdictions (9 per cent of schemes). In addition, some pension schemes imposed "less common" charges such as a transfer fee, redemption fee, entry fee, switching fee, and exit fee that were mostly expressed in fixed terms.

In total, 35 pension schemes (i.e. 42 per cent of the sample) charged fees on one component only; either on assets, contributions, returns or salaries. We also saw that 36 schemes (43 per cent) applied fees charged on two different components, while 12 schemes (14 per cent) applied fees on three components. One pension scheme reported imposing fees on all four components (assets, contributions, returns and salaries).

In the study, 29 jurisdictions (66 per cent) had legal caps on fees. In most cases, the average fees did not equal the legal cap, which could be explained as a positive effect of market competition. However, in 40 per cent of schemes (17 out of 43) average fees were very close to the legal caps. Fee caps tended to decrease over time.

In 14 jurisdictions for which we had sufficient data for both studies, the major tendency is the decrease of average fees from 2014 to 2019. It is interesting that there were only three clear-cut cases where average fees increased (albeit not substantially), and these were pension schemes from Central and Eastern Europe (CEE); namely, Hungary, Poland and Romania. One possible explanation could be the fiscal difficulties faced by CEE countries after the global financial crisis (Fultz and Hirose, 2019). This issue is beyond the scope of this article but deserves further investigation. With regard to legal caps, eight countries lowered their fee caps, whereas one increased them. Six jurisdictions did not change them. There were no changes in the analysed group with regard to the structure of fees.

Another issue is whether the fees reported in the article presented a complete picture of the cost and fee elements of the pension plan/funds. We addressed this question by analysing the extent to which various cost and fee elements were covered by fees charged to pension plan members. We grouped jurisdictions by clusters (i.e. by groups of countries with identical or very similar items already covered by pension fees.), from cluster A (being the most comprehensive) to cluster E (the least comprehensive). The clusters represent the extent to which the underlying data incorporated the full range of fees, charges and expenses that ultimately affect member benefits.

The responding supervisory authorities did not have information on the quantified impact of cost items outside of the fees already paid. This finding calls for some action by pension supervisors to arrive at a better picture of cost elements that are included and not included in fees charged to members. Supervisors should also be able to assess the role of these elements in total member reductions of pension savings.

We calculated charge ratios to analyse the impact of fees and charges on the final value of pension savings. A charge ratio for a 40-year horizon shows how much higher pension savings would have been at the end of a 40-year saving period had there been no fees charged to the pension scheme member. The charge ratios illustrated the compounded effect of fees over the very long term, an effect comparable to the calculation of mortgage loan costs. The range of average 40-year charge ratios was as follows:

- Cluster A (3 jurisdictions, 4 schemes): 22.3 per cent.
- Cluster B (6 jurisdictions, 9 schemes): 18.7 per cent.
- Cluster C (9 jurisdictions, 20 schemes): 23.1 per cent.
- Cluster D (6 jurisdictions, 8 schemes): 18.9 per cent.
- Cluster E (2 jurisdictions, 2 schemes): 25.7 per cent.
- Others (unclassified 5 jurisdictions, 6 schemes): 14.7 per cent.

Cluster A contained jurisdictions with the most comprehensive fees charged to the members and tended to cover all main cost and fee elements indicated in Table 3. The charge ratios for clusters C, D and E were very likely to be underestimated, since the fees charged in those jurisdictions covered fewer important costs and fees than clusters A and B. Charge ratios tended to decrease from cluster A to cluster E with – the exception of cluster B. However, the differences were very small.

We did not find substantial differences in charge ratios due to the number of fee components. The average charge ratio for pension schemes with one fee component was 19.7 per cent, for schemes with two components it was 21.8 per cent, and for schemes with three components it was 12.4 per cent. These differences were not considerable taking into account the differences in charge ratios in each type of scheme.

Clearer differences in average charge ratios were observed by scheme type. The average charge ratios were as follows: 18.8 per cent for "Occupation DC plans", 19.7 per cent for "Personal plans L", 23.1 per cent for "Personal plans NL", and 19.2 per cent for "Others (unclassified)". These results suggest that occupational DC pension schemes and personal plans linked (L) to employment tended to be generally much more cost effective than personal schemes where there was no direct link (NL) with employment.

Compared to the exercise undertaken in 2014 by Ionescu and Robles, charge ratios (calculated for a 40-year horizon and a 5 per cent rate of return) dropped in 18 schemes out of 23 for which we had comparable data. This finding is in line with a trend of decreasing average fees in most of the countries.

Notwithstanding the limitations of cross-country comparisons of fees and charge ratios, the cluster approach allocates jurisdictions to more homogenous groups.

The article also undertook a sensitivity analysis of charge ratios. In the sensitivity analysis addressing three different fee structures, the biggest impact was observed when charging fees on assets (+4.4 pp, −4.6 pp), followed by fees on returns (i.e. performance) (+1.3 pp, −1.3 pp) and fees on contributions (+0.6 pp, −0.7 pp), respectively. This should have implications for deliberations on policy choices concerning fee caps – in mature markets, the greatest positive impact for the final value of pension savings will result from restricting the level of fees charged on assets.

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Appendix

Table A.1. *Fees charged by pension funds in selected jurisdictions (as of 2016 or 2017)*

Jurisdiction	Type of funds	Contributions			Salaries			Assets			Returns			Others			Notes
		Y/N	Legal cap (%/)	Avg.	Y/ N	Legal cap	Avg (%).	Y/ N	Legal cap (%)	Avg. (%)	Y/ N	Legal cap (%)	Avg. (%)	Y/N	Legal cap	Avg. (%)	
Albania[a]	Occupational DC plans							Y[b]	3	2.1				Y[c]	0.5%/ 2%- 20%	0.5/2–20	Other: switching fee, withdrawal fee
	Personal plans L							Y[b]	3	2.1				Y[c]	0.5%/ 2%- 20%	0.5/2–20	
Armenia	Personal plans NL							Y	1.5					Y	1%		Other: redemption fee
Australia[d]	Occupational DC plans							Y		0.59				Y		0.02	Other: represent fees paid by employer sponsor
	Personal plans							Y		1.31				Y		0.01	
Belgium	Occupational DC plans[e,f]	Y	5					Y			Y			Y			
	Personal plans L[f,g]	Y						Y			Y			Y			

(Continued)

Table A.1 *Continued*

Jurisdiction	Type of funds	Contributions			Salaries			Assets			Returns			Others			Notes
		Y/N	Legal cap (%/)	Avg.	Y/N	Legal cap	Avg (%).	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap	Avg. (%)	
	Personal plans NL: Fonds d'épargne-pension Pensioenspaarfonds	Y						Y[h]			Y			Y			Others: exit fee, external audit fee, regulatory fee
	Personal plans NL: Branche 21 life insurance operated by an insurance company	Y						Y						Y			Others: exit costs
	Personal plans NL: Branche 23 life insurance operated by an insurance company	Y						Y			Y[i]			Y			Others: exit costs
Brazil	Occupational plans (DC, DB and hybrid)	Y	9	7				Y	1	0.34	Y[j]						
Bulgaria*	Occupational DC plans	Y	7	3.9							Y	10	10	Y	Fixed		Other: entry fee, switching fee, and etc.
	Personal plans L: UPF[k]	Y	4.25[l]	4.23				Y	0.85[l]	0.85							
	Personal plans L: PPF[kz]	Y	4.25[l]	4.19				Y	0.85[l]	0.85							
	Personal plans L: VPF[k]	Y	7	2.4							Y	10	8.9	Y	Fixed		Other: entry fee, switching fee, and etc.

(Continued)

Table A.1 *Continued*

Jurisdiction	Type of funds	Contributions			Salaries			Assets			Returns			Others			Notes
		Y/N	Legal cap (%/)	Avg.	Y/N	Legal cap	Avg (%).	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap	Avg. (%)	
Chile[m]	Personal plans L				Y		1.27[n,o]	Y		0.24[p]				Y		1.41	
Colombia	Occupational DC plans				Y	3%[q]								Y			Other: fees on changing manager, fees on passive members
Costa Rica	ROP[r]							Y	0.5 (2020: 0.35)	0.49							
Czech Republic	Personal plans – Transformed funds[s]							Y	0.8		Y	10		Y			Other: fee for transfers, fee for one-off payment
	Personal plans – Participation funds[t]							Y	1/0.4		Y	15/10		Y			Other: fee for change in the savings strategy, fee for transfers, etc.
Estonia*	2nd pillar							Y[u]	2/1.2[v]	1.008				Y			Other: redemption fee up to 0.1% of the net value of a unit (0.05% for conservative funds)
	3rd pillar							Y						Y			Other: redemption fee and unit issue fee
Ghana	Occupational DC plans	Y	5	NA	Y		ND	Y	2.5[w]	2.2	Y						Other: scheme audit fee
	Personal plans L	Y	35	NA				Y	2.5[w]	2.0	Y						

(Continued)

Table A.1 *Continued*

Jurisdiction	Type of funds	Contributions			Salaries			Assets			Returns			Others			Notes
		Y/N	Legal cap (%/)	Avg.	Y/N	Legal cap	Avg (%).	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap	Avg. (%)	
Hong Kong, (China)*	Mandatory Provident Fund (MPF)							Y	Note[x]	1.56[y]							
Hungary	Occupational DC plans	Y						Y						Y			
	Personal plans NL	Y	6	4.9				Y	0.8	0.5				Y[z]	Fixed		
Iceland	Occupational plans[aa]									≈0.2							Average is approximately calculated based on assets (Fees may not be charged on assets)
	Personal plans[ab]							Y[ac]		≈0.5[ab]							
India	Personal plans L	Y	PoP[ad]: INR 25000/ NA[ae]	PoP[acd)] 0.25/ NA[ae]				Y	PF Charge: 0.01[ag)]/ 0.0102[ah)]	PF Charge: 0.01[ag]/ 0.0102[ah]				Y	See Note[aj]	See Note[aj]	Around 99% of the subscribers are currently with CRA1
			eNPS: INR 10000/ NA[ae]	eNPS: 0.1/ NA[ae]					Custodian Charge: 0.0032	Custodian Charge: 0.0032							
									NPS Trust Charge: 0.005	NPS Trust Charge: 0.005							

(Continued)

Table A.1 *Continued*

Jurisdiction	Type of funds	Contributions			Salaries			Assets			Returns			Others			Notes
		Y/N	Legal cap (%/)	Avg.	Y/N	Legal cap	Avg (%).	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap	Avg. (%)	
	Personal plans NL		PoP[ad]: INR 25000/NA[af]	PoP[ad]: 0.25/ NA[af]				Y	PF Charge: 0.01[ag]/ 0.0102[ai]	PF Charge: 0.01[ag]/ 0.0102[ai]				Y	See Note[aj]	See Note[aj]	Around 99% of the subscribers are currently with CRA1
			eNPS: INR 10000/NA[af]	eNPS0.1/ NA[af]					Custodian Charge: 0.0032	Custodian Charge: 0.0032							
									NPS Trust Charge: 0.005	NPS Trust Charge: 0.005							
Ireland	Occupational plans	Y[ak]						Y[al]						Y			Others: exit penalties, fee or cost applied to policy holder for early exit from policy
	Personal plans (Standard PRSA)	Y[ak]	5					Y[al]	1					Y			
	Personal plans (Non-Standard PRSA)	Y[ak)]						Y[al)]						Y			

(Continued)

Table A.1 *Continued*

Jurisdiction	Type of funds	Contributions			Salaries			Assets			Returns			Others			Notes
		Y/N	Legal cap (%/)	Avg.	Y/N	Legal cap	Avg (%).	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap	Avg. (%)	
Israel*	DC Plans	Y	6	2.51				Y	0.5	0.25							
Jamaica	Personal plans L	Y						Y						Y			Other: transfer fees to other funds or schemes & between unitized funds
Rep. of Korea	Personal plans L							Y		0.45							
Kosovo	Occupational DC plans	Y		3				Y		1.5	Y		20[am]	Y	1%/ 2%		Other: exit fee • 1% when member dies and assignees withdraw the money • 2% when members retire and withdraw the money
Latvia	Occupational DC plans	Y		NA				Y[an]		0.8							Administrative expenses and investment management charges (fees on contributions separately not available)
	Personal plans L							Y[an]	1.5–2[ao]	1.4							
	Personal plans NL	Y		NA				Y[an]		2.1							

(Continued)

Table A.1 *Continued*

Jurisdiction	Type of funds	Contributions			Salaries			Assets			Returns			Others			Notes
		Y/N	Legal cap (%/)	Avg.	Y/N	Legal cap	Avg (%).	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap	Avg. (%)	
Liechtenstein	Occupational DC plans	Y		1.93				Y		0.37				Y		0.21	
Lithuania	Personal plans NL 2nd pillar	Y	0.5	0.05				Y	0.65/1[ap]	0.89%				Y	0.05	0.002%	Other: switching fee
	3rd pillar	Y						Y						N			
Maldives	Occupational DC plans							Y	0.8 (monthly)								
Mauritius	Occupational DC plans				Y		0.4	Y		0.6							
Mexico	Personal plans L							Y		1.06[aq]							
Namibia	Occupational DC plans				Y			Y			Y			Y			
	Personal plans L	Y						Y			Y						
	Personal plans NL	Y						Y			Y						
Nigeria	Occupational DC plans	Y	N100	N100				Y	3	2.25							N100 is a monthly fee
North Macedonia	Mandatory pension funds	Y	3	3.0				Y	0.04 (monthly)	0.43				Y	Fixed		Other: switching fee
	Voluntary pension funds	Y	7	2.62				Y	0.15 (monthly)	0.86				Y	Fixed		

(Continued)

Table A.1 *Continued*

Jurisdiction	Type of funds		Contributions			Salaries			Assets			Returns			Others			Notes
			Y/N	Legal cap (%/)	Avg.	Y/N	Legal cap	Avg (%).	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap	Avg. (%)	
Peru[ar*]	Occupational DC plans[as]	(a) Salary				Y		1.58										
		(b) Mixed				Y		0.63	Y		1.23%							
	Personal plans L[at]	Fund 0							Y		0.80%							
		Fund 1							Y		1.17%							
		Fund 2							Y		1.74%							
		Fund 3							Y		2.03%							
	Personal plans NL	Fund 0							Y		0.80%							
		Fund 1							Y		1.17%							
		Fund 2							Y		1.74%							
		Fund 3							Y		2.03%							

(Continued)

Table A.1 *Continued*

Jurisdiction	Type of funds	Contributions			Salaries			Assets			Returns			Others			Notes
		Y/N	Legal cap (%/)	Avg.	Y/ N	Legal cap	Avg (%).	Y/ N	Legal cap (%)	Avg. (%)	Y/ N	Legal cap (%)	Avg. (%)	Y/N	Legal cap	Avg. (%)	
Poland*	Occupational DC plans							Y	0.6								
	Personal plans L	Y	1.75	1.55				Y	0.54	0.48	Y	0.06	0.03				Fees on return is charged on net assets
	Personal plans NL	Y						Y									
Portugal	Occupational DC plans							Y^{au}		0.3				Y			Other: transfer fees, fees on the issuance and redemption of participation units, etc.
	Personal plans NL							Y^{au}		1				Y^{av}			
Romania*	Mandatory Personal plans	Y	2.5	2.5				Y	0.6	0.6				Y			Other: transfer penalties for transfers under 2 years of membership
	Voluntary Personal plans	Y	5.0	2.78				Y	2.4	1.85				Y			
Russian Federation	Mandatory DC										Y^{aw}	15					
	Voluntary Pension Component	Y^{ax}	3								Y^{aw}	15					

(Continued)

Table A.1 *Continued*

Jurisdiction	Type of funds	Contributions			Salaries			Assets			Returns			Others			Notes
		Y/N	Legal cap (%/)	Avg.	Y/N	Legal cap	Avg (%).	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap	Avg. (%)	
Serbia*	Occupational DC plans	Y	3[ay]	1.95				Y	2[az]	1.95							
Slovakia	2nd pillar	Y	1.25[ba]	1.25[ba]				Y	0.3[bb]	0.3	Y	10[BC]	7.22	Y[bd]			
	3rd pillar							Y	0.8/1.6[be)]	1.44	Y	10[bc)]	1.14	Y[bd, bf]		0.001/ 1.113	0.001%: switching fee, 1.113%: termination settlement fee
Slovenia (SMA)	Occupational DC plans							Y						Y			
Slovenia (ISA)	Personal plans L							Y	1	0.98				Y[bg]	3%/ 1%/ €15 per switch	0.4/0.1/ ND	Others: entrance fee/exit fee/switching fee
Spain	Occupational DC plans							Y[bh]	1.5[bi]/0.25[bj]	0.18/0.03							
	Personal plans NL							Y[bh]	1.5[bi]/0.25[bj]	1.11/0.14							
Suriname	Occupational DC plans	Y		10													
Sweden	Premium pension							Y[bk]	0.89/0.62/ 0.42								

(Continued)

Table A.1 *Continued*

Jurisdiction	Type of funds	Contributions			Salaries			Assets			Returns			Others			Notes
		Y/N	Legal cap (%/)	Avg.	Y/N	Legal cap	Avg (%).	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap (%)	Avg. (%)	Y/N	Legal cap	Avg. (%)	
Turkey	Personal plans L	Y[bl]		0.24				Y	0.365/ 1.09/1.91/ 2.28[bm]	1.64				Y[bl]		0.48	Others: Entrance fees paid at entrance/Entrance fee paid at termination/ Additional administrative expenses fees in case of contribution holidays
	Personal plans NL	Y[bl]		1.2				Y						Y[bl]		0.06	
United Kingdom	Default funds							Y	0.75								
Uruguay	Personal plans L				Y		1.64	Y[bn]		0.018							

Notes: L = plans linked to employment or professional activity; NL = plans not linked to employment or professional activity. Figures in (*) are as of 2017 while others are as of 2016.

[a]Personal income tax (15%) is charged on returns (any payment from a pension fund to a unit holder as in cases of early withdrawal and receiving retirement benefits is subject to personal income tax and is calculated on the net asset value to be received by the unit holder).

[b]Management fee (shall not in any event exceed 3% per annum of the net asset value of the pension fund).

[c]Others: 0.5% switching fee (calculated on the transferred amount of net assets of the pension plan member who decides to transfer his/her assets to a new pension fund);
2%-20% withdrawal fee (penalties related to premature withdrawal from pension funds, calculated on the net value of the assets to be withdrawn prematurely, after tax has been deducted and vary based on the number of years the unit holder has been a member of the pension fund).

[d]These figures represent the system averages. However, there are a range of fees and fee structures charged to members in different entities.

[e]Occupational DC plans: Overall, no costs may be deducted from employee contributions (cap=0%). No indemnity or loss of profit sharing can be charged to the member or deducted from his/her vested reserves when leaving the employer. DC and cash balance schemes, “the beneficiary has the right, at the time of his/her discharge, of his/her retirement or in case of abrogation of the pension commitment, to the part of the contribution which has not been paid by him/her, which has not been used to cover the death and invalidity risks before retirement and which has not been used to cover the fees limited to 5% of the payments.” (article 24§2 of the Law dated 28 April 2003 on supplementary pensions, Belgian SLL). The term “fees” is not defined. Since the majority of pension plans in Belgium are of the DB type (in terms of AUM), costs and charges borne by members and beneficiaries are limited compared to those borne by the IORPs themselves. Further, as per the Law on Supplementary Pensions, DC plans are subject to a minimum guaranteed return on employer and employee contributions.

[f]Occupational DC plans and Personal plans L: Apart from the fees mentioned in [e)], pension laws in Belgium do not make a specific reference to particular types of fees or require costs and charges to be broken down and disclosed in a particular way, although "assets" and "returns" fees exist. These are usually disclosed as "administration costs". In practice, IORPs report costs and charges related to transactions/operations in their investment portfolios on an aggregate basis in their annual reporting. Since no distinction is made between the different types of fees, it is not possible to compute an average level of fees for the categories in the table.
[g]Personal plans L are of two types: for self-employed people and for company leaders. They do not carry a minimum guarantee or a legal cap on contributions.
[h]Fees on assets include administration fees, management fees, distribution fees and custodian fees.
[i]In theory, performance fee can be charged; in practice this is not the case for any current products in Belgium.
[j]Fees on returns are booked into the "fees on assets" account.
[k]UPF: Universal pension funds, PPF: Professional pension funds, VPF: Voluntary pension funds.
[l]Legal caps became lower in 2017 compared to 2016 (4.5% → 4.25%, 0.9% → 0.85%).
[m](i) The average fee charged to members on salaries is weighted by the number of contributors to the system in December 2016.
(ii) The fee reported in "Others" corresponds to the fee charged on salaries to employers for providing the disability and survivor insurance.
(iii) There is no a fee charged to members on assets but pension providers deduct directly from pension funds the investment expenses related to indirect investment transactions (such as for mutual funds and other investment vehicles, both domestic and offshore). As of 2016, this cost represented on average 0.24% of assets under management.
[n]The weighted average fee charged in Chile declined from 1.27% to 1.23% in January 2017 and 1.19% in August 2017.
[o]Fee charged on salaries (1.27%) is equal to 0.59% when expressed as the percentage of the AUM; 0.59% on assets was used instead of 1.27% on salaries in the calculation of charge ratio.
[p]See note m (iii) for the description of 0.24%.
[q]Legal cap (3%) includes administration fees and the payment of the premium of the death and disability insurance.
[r]ROP (Régimen Obligatorio de Pensiones) is the mandatory supplementary pension scheme in Costa Rica (DC, second pillar).
[s]Transformed funds: The law specifies the maximum annual management fee at 0.8% value of a fund's assets and 10% of its profit.
[t]Participants funds: The law specified the maximum annual management fee at 1% of the value of assets and 15% of assets' appreciation value. The only exceptions are mandatory conservative funds with annual management fee at 0.4% of the value assets and 10% of assets' appreciation value.
[u]The management fee must decline by 10% each time when assets of pension funds managed by the same management company exceed the next level of EUR 100 million. For example, if a management company charges 1% of assets and manages EUR 220 million, the actual fee will be 1% on the first EUR 100 million, 0.9% on the second EUR 100 million and 0.81% on the last EUR 20 million, thus an overall fee rate of 0.937% (=(100×1%+100×0.9%+20×0.81%)/220). This scale does not apply when the management fee does not exceed 0.4% of assets. In addition, fund managers will be able to charge a performance fee for all funds except conservative ones, on top of the basic fee. A fund manager will be able to charge a performance fee if the cumulative increase in the net asset value of the unit of its pension fund exceeds the cumulative increase in the receipt of the social insurance pension, with both indexes starting as of 31 August 2019 (or 31 December of the year of registration for future market entrants). The performance fee is calculated annually and cannot exceed 20% of the difference between the two indexes, up to 2% of the value of the assets of this pension fund. There is a high-water mark mechanism, as the reference point of the net asset value index becomes the highest net asset value of the pension fund of the past 10 years.
[v]1.2% is for conservative funds. However, as of 2 September 2019, with the goal of reducing fees further and increasing investment performance (Investment Funds Act), the cap for the management fee will become 1.2% for all pension funds, harmonizing with the rate that prevailed for conservative funds.
[w]The limit consists of maximum fees charged by Approved Trustees (1.33%), Pension Fund Managers (0.56%), Pension Fund Custodians (0.28%) and the Supervisory Authority (0.33%) for contributions collection, fund administration/investment and supervision.
[x]For funds under the Default Investment Strategy there is a cap of 0.75% on management fees and 0.20% on recurrent out-of-pocket expenses.

[y]Refers to the average of the Fund Expense Ratios of MPF constituent funds with their financial year-end dates falling within the period from 1 April 2016 to 31 March 2017, which was published in the MPFA website on 29 December 2017.
[z]Others: 1) Entry fee, 2) Switching between portfolios of fund member's individual account (may not exceed 0.1% of the balance available in the accounts involved, and may not be higher than HUF 2,000 forints), 3) Withdraw money from personal account (reasonable cost, may not exceed HUF 3,000 + money transfer cost).
[aa]In occupational plans, costs can vary depending on the fund.
[ab]In personal plans, 85% of the market is managed by the occupational private pension funds, with similar charges as note y). Other providers (15%) of personal pension savings charge fee as a % of assets.
[ac]This market average value relate to few providers of personal pension other than the occupational pension funds (around 15% of the total providers).
[ad]Following numbers are for the Subsequent contribution charge through Point of Presence (PoP) (Initial Contribution charge through PoP is INR 200).
[ae]Charges for subscribers of Government Sector or NPS Lite and Atal Pension Yojana (APY).
[af]Charges for NPS Lite and Atal Pension Yojana (APY).
[ag]Fees for subscribers of private sector (i.e. Corporates and All Citizen models).
[ah]Fees for subscribers of Government Sector, NPS-Lite and APY.
[ai]Fees for subscribers of NPS-Lite and APY.
[aj]a. Central Recordkeeping Agency (CRA) account opening charges: CRA1 - INR 40 (Private & Government sector) /15 (NPS Lite and APY), CRA2 - INR 39.36 (Private & Government sector) /15 (NPS Lite and APY);
b. CRA account maintenance charges: CRA1-INR 95 (Private & Government sector)/25 (NPS Lite and APY), CRA2-INR 57.63 (Private & Government sector) /14.4 (NPS Lite and APY);
c. CRA Transaction charge: CRA1 - INR 3.75 (Private & Government sector) /NA (NPS Lite and APY), CRA2 - INR 3.36 (Private & Government sector) /NA (NPS Lite and APY);
d. PoP Persistency Charge: INR 50 (Private sector)/NA (Government sector & NPS Lite and APY).
[ak]Fees on contributions include an allocation rate and bid-offer spreads. The allocation rate is the percentage of members' contribution that actually is used for purchasing investment units, which is net of any fees that may be incurred upon initial investment and is effectively the amount that is invested. Bid-offer spread is the difference between the price at which units can be purchased and the price at which units can be sold back to the investment manager on any given day in unit-linked investments contracts).
[al]Include annual management charges (associated with costs of fund management) and policy fees (monthly or annual; levied by a life assurance company to cover administration costs).
[am]20% of profit above the benchmark.
[an]Administrative expenses and investment management charges (fees on contributions separately not available).
[ao]From 1 January 2018 legal cap on assets is 1.05%-1.3%, and from 1 January 2019 legal cap on assets will be reduced to 0.85%-1.1%.
[ap]0.65% for bond 2nd pillar PFs, 1% for other 2nd pillar PFs.
[aq]1.06% is as of 2016. Fees on assets have decreased to 1.03% in 2017 and 1.01% in 2018.
[ar]Average values in the table relate to simple average of all pension managers (AFP) by type of fund: Fund 0 (ultra-conservative), Fund 1 (conservative), Fund 2 (balanced) and Fund 3 (risky).
[as]In Peru's Private Pension System, fees are charged to members on (a) monthly salary, and (b) a mixed scheme, which is charged on two parts: i) monthly salary and ii) assets on an annual basis. For the implementation of the mixed scheme, a 10-year transition period was established, which began in February 2013.
[at]Related to voluntary pension saving, which are of two types: i) for pension purposes (L) and ii) for non-pension purposes (NL).
[au]Includes scheme manager fees (remuneration/costs of administration of the pension fund management entity), custodial fees/costs of safekeeping of assets, costs related to portfolio transactions.
[av]For the specific case of retirement saving schemes in personal plans, transfer fees are subject to a max of 0.5% of the transferred amount if there is a capital or return guarantee and

cannot be charged otherwise.
[aw]The maximum, which pension funds can take from the amount that is equal to earned income reduced by fees for asset management companies and specialized depositaries.
[ax]Pension funds can use this fee for forming insurance reserve. However, the fee must be specified in pension programme agreement.
[ay]From January 2018, there are no limitations regarding the contribution fee and it is to be set by the fund management company, in accordance with the tariff of fees.
[az]From January 2018, the management fee is lowered to a max of 1.25% of the fund net asset value.
[ba]1.25% = 0.25% + 1.0%; 0.25% is a tax deducted by SIA (the Social Insurance Agency) provided by the law; 1.0% is the fee for maintaining a personal pension account is max 1% of saver's monthly contribution.
[bb]The management fee must not exceed 0.3% of the average annual net asset value of the pension fund (0.25% monthly).
[bc]The performance (Success) fee is calculated every day, and the max is 10% of the yield.
[bd]Others: taxes payable on the assets of a pension fund, depository fee, fees charged by an entity providing settlement of securities transactions, fees for current accounts and deposit accounts, fees charged by an auditor for auditing, fees charged by a central securities depository.
[be]0.8% for pay out supplementary pension fund, 1.6% for contributory supplementary pension fund.
From 1 January 2017, a legal cap on assets is 0.75% for pay-out supplementary pension fund and 1.5% for contributory supplementary pension fund. From 1 January 2019, a legal cap on assets will be reduced to 0.65%–1.3%. Reduction of fees were triggered by regulatory legislative changes in 2013.
[bf]Switching fee and termination settlement fee are paid from a client's individual account. The switching fee is max 5% of the member's account balance in first year after concluding a contract/more than 1 year is free of charge. The termination settlement fee is max 20% of the member's account balance – only for the old contracts (before 1 January 2013). Switching fee and termination settlement fee are only for the 3rd pillar.
[bg]Entry fee 3% of contributions/exit fee 1% of assets/switching fee EUR 15.
[bh]Managing entity fee/custodian fee.
[bi]In 2018, the limit on managing entity fee has been modified introducing three types of limits depending on the type of investment:
A cap of 0.85% is applied for fixed-income funds, which means a decrease of 65 basic points compared to the previous limit (1.50%);
A cap of 1.30% for mixed funds, 20 basis points less;
And 1.50% for equity funds (the same limit as the previous one).
[bj]In 2018, the limit on custodian fees has been reduced as well from 0.25% to 0.20%.
[bk]Equity funds/Mixed funds/Fixed income funds.
[bl]Fees apply for the first 5 years of the contract. Only one joint cap is applied for total of entrance fees (paid at entrance and paid at termination), administrative expenses fees and additional administrative expenses fee in the case of contribution holiday for each year, 8.5% of monthly minimum gross wage (TRY 140 for 2016).
[bm]Annual total fund management fee ratio. a) State contribution funds: 0.365%. b) Money market funds, Precious metal funds: 1.09%. c) Government bonds and bills funds, Standard funds, Index funds: 1.91%. d) Stock funds, participation funds, composite funds, fund basket funds, variable funds, life cycle/target funds: 2.28%.
[bn]Fees on assets are charged for custody of financial instruments and therefore drive no profit for the fund manager.

Sources: 2017 OECD Global Pension Statistics and IOPS Members and desk research.

The relevance of institutions and people's preferences in the PSNP and IN-SCT programmes in Ethiopia

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Abstract The effective implementation of social protection interventions is key for achieving positive change. The existing literature mainly focuses on issues related to programme design and impact, rather than the factors that influence the emergence, expansion and provision of these programmes. This article builds on the recent literature that indicates that the quality of institutions and people's preferences play an important role in the implementation of social protection. It does so by using Ethiopia and its Productive Safety Net Programme – one of the largest social protection programmes in sub-Saharan Africa – as a case study, thereby contributing to debates on how to implement social protection more effectively, particularly in settings of widespread poverty and relatively low levels of institutional capacity. Based on primary qualitative data, the article finds that greater institutional quality at the local level is associated with the more effective provision of social protection. The ability of community members and

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social protection clients to voice preferences can lead to adaptations in implementation, although the extent to which this occurs is highly gendered.

Keywords social protection, social policy, social worker, human development, Ethiopia

Introduction

In recent decades, low- and middle-income countries have increasingly established and expanded their social protection systems, reaffirming the important role of social protection investments (Cichon, Hagemejer and Woodall, 2006; Cichon et al., 2004; World Bank, 2012). Social protection is important for alleviating poverty (Barrientos and Hulme, 2010; Barrientos, Hulme and Shepherd, 2005), addressing its causes (World Bank, 2001), and improving cohesion by effectively redistributing wealth in the population (Jutting and Prizzon, 2013).

The effective implementation of interventions is crucial for affecting such change. For example, evaluations of cash transfer programmes find that regular and consistent payments, and appropriate messaging about behaviour change, constitute important mediating factors in achieving effects (Bastagli et al., 2016; Daidone et al., 2017). Evidence from comprehensive graduation programmes that combine a range of livelihood-oriented support indicates that the supply of appropriate assets and positive relationships between beneficiaries and programme staff are vital to engender positive impacts (Banerjee et al., 2015; Devereux et al., 2015). However, research that investigates factors that underpin the quality of implementation (or the lack thereof) of individual programmes is limited. This holds true even for Ethiopia’s widely studied system of social protection.

The existing literature on social protection in Ethiopia mainly focuses on the impact of cash transfers and public works, and the power dynamics and politics of the Productive Safety Net Programme (PSNP) (Abdulahi Mohamed, 2017; Cochrane and Tamiru, 2016). Various studies have examined how formal and informal power structures in Ethiopia impact poverty and how power is influenced by the interaction among political parties (Vaughan, 2011; Vaughan and Tronvoll, 2003). Research has been conducted also on land ownership as a form of social protection for smallholders, which questions the capacity of such programmes to ensure food security (Lavers, 2013). Few studies have investigated people’s participation in the implementation of development activities (Williamson, 2011) and people's limits in engaging with systems of social and community accountability (Pankhurst, 2008). The evidence suggests that policies produce different results depending on their implementation (Vaughan and Rafanell, 2012). This article aims to extend the evidence base on social protection in Ethiopia by exploring the roles of people's preferences and identifying institutional quality at the local level in the implementation of PSNP.

Using a qualitative approach, this article investigates to what extent greater and more effective collaboration between programme staff and service providers at "*kebele*" level[1] and the effective functioning of community committees (as proxies for institutional quality at the local level), as well as beneficiaries' abilities to voice and have their preferences taken into account (a proxy for people's preferences), are associated with the more effective implementation of programme components. It does so in the context of widespread poverty and relatively low levels of administrative capacity in Ethiopia and by focusing on the Productive Safety Net Programme (PSNP),[2] one of the largest social protection programmes in Africa.

The contribution of this article is two-fold. First, it expands the – currently limited – evidence base on factors that determine the quality of the implementation of social protection interventions, providing new and unique primary data analysis that offers empirical evidence regarding the roles of the quality of institutions and people's preferences. Second, it provides policy-relevant insights that can inform the field of social protection at large and in Ethiopia in particular.

The structure of the remainder of this article is as follows. The next section presents the conceptual framework. We then introduce Ethiopia's country as well as programme context and explain the operationalization of the conceptual framework. It turn, we present the study's methodology and discuss the research findings and main hypotheses. Finally, we conclude and elaborate on the policy implications.

Conceptual framework

Knowledge about factors that underpin social protection systems and programmes are increasingly researched, particularly their political economy. Hickey (2011) emphasizes the importance of social contracts between governments and citizens in facilitating social protection. Alesina and La Ferrara (2005) argue that voting preferences and public perceptions can lead to greater levels of redistribution as

1. A *kebele* is the lowest unit of local government in Ethiopia, equivalent to a ward.
2. The PSNP was established in 2005 in response to high levels of food insecurity, and is currently in its fourth round of implementation (PSNP4).

well as bolster government involvement in the provision of public services. A recent study across 80 high-, middle- and low-income countries highlights that the quality of institutions and people's preferences for social protection also play a role in determining the level of social protection expenditures (Gassmann, Mohnen and Vinci, 2016). In exploring the role of legal and policy frameworks in social protection, Kaltenborn et al. (2017) find that they can galvanise progress towards systems-building, but also point out that a lack of ownership and a lack of coordination may hamper such efforts. Indeed, recent evaluations find that political will, vertical and horizontal coordination and stakeholders' alignment of objectives are key factors in facilitating so-called "cash plus" approaches (Roelen et al., 2017).

A political economy perspective is also crucial for understanding the implementation of social protection interventions. Implementation is affected by a mix of factors, such as politics, social contracts between citizens and State authorities, institutions, actor interests, socio-cultural attitudes and fiscal constraints (Holmes and Jones, 2010). Nevertheless, factors underpinning the quality of implementation (or the lack thereof) are not often explicitly studied. A notable exception is a recent study by Kardan et al. (2016) that concludes that the strained capacity of local administration and community structures and the limited resources at their disposal, as well as the lack of training, against a backdrop of already high workloads, undermines programme implementation.

To advance the limited understanding of what drives the quality of the implementation of social protection, we build on the conceptual framework of Gassmann, Mohnen and Vinci (2016). The framework posits that a country's initial conditions (such as demographic, economic, legal, political and historical factors), the quality of institutions and people's preferences can influence resource allocations towards social protection. Governments deemed more efficient and accountable to their citizens are better able to reflect and translate the preferences of their citizens regarding fiscal allocation, policy choices and social protection interventions. We extend this framework by considering the quality of institutions and people's preferences vis-à-vis the effective implementation of social protection. Easterly (2013), for example, argues that good quality institutions should be able to deliver effective public services. In addition, people's preferences may influence the delivery of social protection interventions, as the provision of specific interventions may respond to citizens' demands (Hickey and King, 2016).

As such, the proposed conceptual framework relates to the concept of governance as developed by Grindle (2004), with governance seen as a nuanced understanding of the evaluation of institutions and government capability. Specifically, if government and organizations have limited capacity, for example having few human resources available to perform tasks, their resources are unlikely to be efficiently used and services may be undelivered with a consequent denial of social, legal and economic protection for citizens, especially the poor. Given the decentralized implementation of the social protection intervention under study – Ethiopia's PSNP – this case study allows for insights. This is particular so in terms of how a greater reliance on local institutions for the process of implementation may improve the overall accountability and responsiveness of government, and thus increase citizens' voice (Faguet, 2014) and contribute to poverty reduction (Jutting and Prizzon, 2013).

We elaborate on the three components in our framework – quality of institutions, people's preferences and effective implementation – below.

First, we understand the institutions that support social protection programmes to refer to the organizations influencing the design, implementation and management of these interventions (Coll-Black, Monchuk and Standford, 2018). In this article, the terms "quality of institutions" or "performance of institutions" are used to capture organizations' functioning and effectiveness (Rueschemeyer and Evans, 1985). In relation to the Ethiopian context, we focus on the kebele, the lowest local-level formal administrative institution that is most directly involved in the decentralized delivery of the PSNP. While both formal and informal political, economic and social power structures and power relations in Ethiopian society could have an impact on poverty (Vaughan and Tronvoll, 2003), this article specifically focuses only on formal institutions.

When referring to the institution of the kebele within the remit of social protection (i.e. the PSNP), we refer to service providers who work for the kebele administration (e.g. development agents (DAs), social workers (SWs), health extension workers (HEWs)), and the community structures of the Community Care Coalition (CCC) and the Kebele Appeal Committee (KAC). Collaboration between service providers, such as DAs, HEWs, SWs and the kebele manager (KM), is crucial for the delivery of the PSNP. These "local frontline workers" are responsible to oversee, coordinate, manage and deliver social protection interventions (Coll-Black, Monchuk and Standford, 2018, p. 184). Therefore, they can affect the overall implementation of the social protection intervention.

The CCCs are legitimate community structures mandated[3] with the coordination of social protection and child protection programmes at the grassroots' level, through respective regional proclamation/regulation (MoLSA,

3. The main objectives of the CCCs are to: i) strengthen the economic and social capacities of vulnerable groups; ii) support vulnerable people to access basic social services, livelihood strengthening services and legal services; iii) mobilize local resources for mutual support; and iv) mobilize communities to raise awareness.

2019). These community structures have been established to improve the quality of life and well-being of the most vulnerable groups through community participation and contributions in line with the main objectives stated in the National Social Protection Policy and Strategy of Ethiopia (MoLSA, 2015). The CCCs are led typically by the kebele chairperson (KC), and have membership consisting of volunteer individuals, community-based associations, religious organizations, government and non-government organizations and civic associations. For its part, the KAC constitutes community members and receives social protection clients' grievances. Additional structures are also present at kebele level, such as the Kebele Food Security Task Force (KFSTF) and the Community Food Security Task Force (CFSTF). While the membership of the KFSTF and CFSTF overlap to a certain extent with that of the CCC, these bodies are mainly linked to food security programmes and, established within the PSNP system, have a more limited mandate compared to the CCCs.[4]

Second, we use the term people's preferences in relation to community members and social protection beneficiaries' capacities to make their voices heard, and thereby influence the provision of social protection interventions (MoLSA, 2018). Various institutional mechanisms permit the voicing of such preferences, for instance the CCC and the KAC. Therefore, the establishment of community structures is crucial for the articulation of people's preferences.

Third, we explore effectiveness of implementation. This is done by focusing on the extent to which the implementation of programme components adheres to the programme manual. Given the many complementary interventions in the PSNP, this does not focus strictly on the delivery of cash transfers, but rather looks closely at the provision of services in addition to cash transfers. The effective delivery of those additional components is crucial for effecting positive change (Roelen et al., 2017). We explore the implementation of social protection by focusing on the effective monitoring and implementation of social protection activities as well as whether social protection interventions are chosen to meet clients' needs.

The two hypotheses under consideration here are as follows: i) that higher quality institutions are associated with the better implementation of social protection interventions and; ii) the greater ability of people to express their preferences and have these taken into account improves the implementation of social protection interventions. This article uses the terms "quality", "effectiveness" and "performance" of institutions interchangeably to describe the extent to which objectives are achieved and targeted problems are solved.

4. Please refer to the Glossary at the end of the article for a list of acronyms and names for the service providers and community structures.

The case study of Ethiopia

Country and programme context

Ethiopia is one of the fastest growing economies in Africa as well as the world. Annual GDP growth averaged 11 per cent between 2004–2014 (World Bank, 2016) and Ethiopia moved from being the world's second-poorest economy in 2000 to eleventh poorest in 2014 (World Bank, 2016). Poverty has reduced concomitantly. In 2000, Ethiopia had one of the highest poverty rates, with 56 per cent of the population living below $1.25 PPP per day. In 2011, this had reduced to 31 per cent (World Bank, 2015). According to national poverty estimates, the headcount poverty rate declined from 29.6 per cent in 2010/2011 to 23.5 per cent in 2015/2016 (National Planning Commission, 2017). Notwithstanding these achievements, poverty remains widespread. In particular, the most vulnerable and marginalized have not seen an improvement in their living conditions (National Planning Commission, 2017). Food insecurity has been and remains a strong component of vulnerability in Ethiopia, involving disparities between rural and urban areas, a high exposure to climatic shocks, and a traditional dependence on undiversified livelihoods (Bogale, Hagedorn and Korf, 2005; Devereux, 2000).

Provisions for social protection are included in articles 3–7 of the Constitution of the Federal Democratic Republic of Ethiopia (1994), with reference to policy towards non-contributory social protection as well as contributory community-based health insurance. Ethiopia implements a myriad of social protection interventions including social insurance programmes (old-age, disability and survivors pensions), access to basic social services (fee waivers), a national nutrition programme (supplementary feeding), and a food security programme (MoLSA, 2012). The latter includes the PSNP, which is one of the largest social protection interventions in sub-Saharan Africa (Slater and McCord, 2013) and can be considered the cornerstone of social protection in Ethiopia (World Bank, 2015).

The PSNP was implemented in 2005 in response to widespread food insecurity and a continued need for emergency food relief, providing food insecure households with a transfer in lenient times to avoid asset depletion and to protect livelihoods (Devereux et al., 2014). The two main components are a public works programme for households with labour capacity and a direct support element that provides direct cash or food transfers to households without labour capacity. Since its inception, the programme has expanded greatly and now covers 8.5 per cent of the country's population (Hirvonen, Mascagni and Roelen, 2016). Over the years, it has been credited with reducing household vulnerability, food insecurity, and the distress sale of assets among other outcomes (Berhane et al., 2013).

The programme is currently in its fourth round of implementation (referred to as PNSP4 in the National Social Protection Policy for Ethiopia) and is part of the sectoral plan of the Ministry of Labour and Social Affairs (MoLSA, 2012, 2015). Programme design and implementation have undergone various changes from earlier rounds, with the aim of strengthening the programme and improving its outcomes (MoALR, 2016). Under PNSP4, clients with a permanent lack of labour capacity in their household – Permanent Direct Support (PDS) clients – now receive payments for 12 months rather than 6 months per year. Pregnant and lactating women and caregivers of malnourished children will move from Public Works (PW) to Temporary Direct Support (TDS) from the fourth month of pregnancy until the child is aged 1, or for as long as the child is malnourished. PSNP4 also includes "co-responsibilities" for PDS and TDS clients, including the need for clients to use antenatal and postnatal care services and attend behaviour change communication (BCC) sessions.[5] These co-responsibilities are not punitive; non-compliance does not lead to exclusion from the programme or the withholding of transfers.

A pilot project that falls under the umbrella of PSNP4 is the Improved Nutrition through integrated linkages to Social Services and Social Cash Transfer (IN-SCT). The IN-SCT is implemented by the Ministry of Labour and Social Affairs (MoLSA), with support from UNICEF and Irish Aid, in collaboration with the regional and woreda level representatives of the Ministry of Agriculture and Livestock Resources (MoALR), the Ministry of Education (MoE), and the Ministry of Health (MoH).

The pilot was launched in 2016 and is implemented in two PSNP *woredas* in the regional states of Southern Nations Nationalities and People's Region and Oromia Region, respectively.[6] The pilot targets PDS clients and PW clients with a particular focus on TDS. The IN-SCT project aims at system strengthening, as well as to improve the uptake of social services by all "direct support" client households. It equally aims to improve the knowledge, attitudes and practices of direct support client households regarding nutritional, sanitary, health, child protection and educational behaviour, and contribute to a better understanding of the roles and responsibilities of actors such as SWs, HEWs, DAs and community-based committees in achieving improved outcomes (Schubert, 2015). A key component of this pilot is the employment of the social service workforce that operates at kebele level. The social service workforce undertakes the case management of all direct support clients and collaborates with CCCs for the purposes of monitoring

5. BCC sessions cover a broad range of topics across five core areas: maternal and child health; food production and dietary diversity; environmental health and hygiene; gender equality; and financial management.

6. Ethiopia's administrative governance is structured in terms of regional states and chartered cities, zones, *woreda* (districts) and *kebele* (wards).

and follow-up, particularly in relation to co-responsibilities.[7] Co-responsibilities apply to IN-SCT pilot areas as well, where clear processes have established how co-responsibilities are implemented. Capacity building activities are provided more intensively in IN-SCT sites compared to PSNP locations for the grass-roots level implementers, such as DAs, HEWs and SWs. In the case of IN-SCT, the local government ensures the presence of an adequate number of SWs to support PW clients. Clients are either pregnant and lactating women (who are dispensed from PWs implementation from their fourth month of pregnancy until the newborn child is aged 1) or the primary caregivers of malnourished children (who are dispensed from PWs until the child recovers). CCCs comprise groups of individuals at the community level who coalesce with the common purpose of facilitating people's involvement in community activities, and to expand and enhance care and support for the most vulnerable, including children (UNICEF and UNAIDS, 2004; World Vision International, 2010). CCCs typically include 10–15 members from across the community, mostly representing key community structures, such as the kebele management, government sector bureaus, faith-based organizations and the volunteer "Women's Development Army" (MoLSA, 2017).

Evaluations conducted on the earlier rounds of the PSNP show that the programme has contributed to reduce food insecurity and improve diet diversity (Hoddinott et al., 2015). Furthermore, a recent evaluation conducted on the IN-SCT pilot has confirmed the importance of collaboration among service providers (Gilligan et al., 2016) and increased knowledge about nutrition among the IN-SCT clients who have benefited from the regular BCC sessions (Gilligan et al., 2019).

The expansion of PSNP interventions and achievements with respect to poverty reductions have not gone hand-in-hand with improved government effectiveness, as reflected by international indicators (Kaufmann, Kraay and Mastruzzi, 2011). Ethiopia has been ranked as a poor-performing country (Kaufmann, Kraay and Mastruzzi, 2007), reflecting a low level of participation in political decision-making, limited ability to express preferences and the overall weak effectiveness of institutions. Episodes of politically motivated violence have aggravated this situation. In October 2016, in response to protests by the Oromo and Amhara

7. Co-responsibilities include: pregnant women should attend four antenatal care visits; women should complete one visit to the health post 6 weeks after birth; to follow recommended immunization schedules for infants during the first 9 months of life; growth monitoring: infants up to age 2 should attend monthly outreach sessions conducted by HEWs for growth monitoring, vitamin A supplementation and deworming; for children younger than age 5 with acute malnutrition, follow guidelines for receiving check-ups and supplementary and therapeutic feeding at local health clinics; pregnant and lactating women and caretakers of malnourished children should attend monthly nutrition BCC sessions conducted by HEWs; and assure that school-age children are enrolled in school and attending at least 80 per cent of school days.

ethnic groups against the government, the government imposed a state of emergency. In August 2017, this ended, but has resulted in restrictions in and access to information, while also affecting to a certain extent the functioning of kabele-level institutions such as CCCs and KACs. The establishment of a new government in 2018 has resulted in a period of change and reforms aimed at boosting economic growth, improving governance and preparing for a more pronounced involvement of civil society organizations in development programmes.

Operationalization of the conceptual framework

To explore the linkages between the broad concepts of quality of institutions, people's preferences and quality of implementation, we focus on specific components within the PSNP4 and the IN-SCT pilot.

First, we hold that the quality of institutions is a measure of the level of engagement and the strength of collaboration, coordination and interaction between the main service providers in the kebeles. These primarily include SWs, DAs, HEWs and KMs. We also consider the extent to which CCCs and KACs are functional and operational. We take the following factors into account as proxies for the *quality of institutions:*

- Clarity about the roles and responsibilities of service providers and the efficiency of collaboration between service providers in the kebele, involving HEWs, SWs, DAs and KMs, as reported by service providers.
- The establishment and efficient functioning of community structures and grievance redress mechanisms, such as CCCs or KACs, as reported by service providers and clients.

The ability for people to voice their preferences or complaints, and for these to be responded to, is crucial for social accountability. This article chooses to focus on TDS and PW clients as they are expected to interact with community structures and kebele representatives.

People's preferences are assessed based on the following:

- The extent to which PW clients are able to engage with community structures and share their preferences or concerns on the type of PW activities implemented at kebele level, as reported by clients and service providers.

Finally, the quality of implementation is assessed as regards two new programme components, namely the process of transitioning pregnant and lactating women from PWs into TDS, and the monitoring and follow-up of co-responsibilities assigned to TDS clients, including attending growth monitoring and BCC sessions, amongst others. As such, to provide a proxy for *the quality of implementation of social protection interventions* we use the following:

- Correct and effective implementation of the transition of pregnant and lactating women, or primary caregivers of malnourished children, from PW activities into TDS, including the processes of the identification of pregnant and lactating women, confirmation of pregnancy, and transition from PW into TDS, as reported by clients and service providers.
- Effective implementation of co-responsibilities for TDS and PDS clients, including the extent of support and follow-up in cases of non-compliance with co-responsibilities, as reported by clients and service providers. Co-responsibilities include: attending four antenatal care visits; obtaining postnatal care; obtaining vaccination of children; attending monthly growth monitoring for children; attending BCC sessions; completing birth registration; and for children aged 6–18, attending school (for PDS clients only).
- The type of social protection interventions implemented reflects people's needs, including the extent to which the choice of PW activities implemented reflects people's preferences.

Methodology

This article presents a qualitative investigation based on primary data. Primary qualitative data collection consisted of two components: i) key informant interviews (KIIs) with programme staff and service providers at woreda and kebele level and, ii) focus group discussions (FGDs) with PSNP and IN-SCT clients. The proposed methodology allows for effectively obtaining different perspectives on the research questions, as well as to complement and triangulate responses between categories of respondents. The research protocol included questions related to the proxies described above – the functioning of the kebele institutions; the functioning of CCCs and grievance redress mechanisms such as the KAC; collaboration among service providers; the quality of the implementation and monitoring of the transition of eligible clients from PW activities into TDS; and the overall accountability of kebeles to community members.

Data was collected in four kebeles in Ethiopia's Oromia region; from two kebeles (in the town of Arsi Negele) implementing PSNP4 and from two kebeles (in the town of Adami Tulu) implementing the IN-SCT (see Table 1). The kebeles were selected according to their access to main roads, the availability of services and their performance in PSNP/IN-SCT, as advised by woreda representatives.

The fieldwork was conducted in April 2017. In total, the fieldwork included 17 KIIs with government representatives, and representatives of service providers, and 20 FGDs that included a total of 184 community members and social protection clients (34 per cent male and 66 per cent female; with an average age

Table 1. *List of selected kebeles for field work in Oromia region*

No.	Programme	Woreda	Kebele
1	IN-SCT	Adami Tulu	Kebele 1
2	IN-SCT	Adami Tulu	Kebele 2
3	PSNP	Arsi Negele	Kebele 1
4	PSNP	Arsi Negele	Kebele 2

Source: Authors.

of 40 years). FGDs were separated by gender to encourage free discussion. All fieldwork was conducted in the Oromo dialect spoken in the sampled kebeles. Interview protocols were translated into the local dialect and translated back into English to ensure consistency of meaning. Local researchers were trained in the interview protocol, and conducted all interviews and transcribed and translated the findings into English. Ethical approval for the research was obtained from the Ethical Review Committee Inner City of Maastricht University.

Data analysis and interpretation was undertaken by reading and re-reading the responses collected using a process of categorization and identification of themes, trends and patterns across the different segments of respondents, identifying coherent categories in line with the conceptual framework. A few points about the methodology are worthy of mention. First, this study does not aim to be nationally or regionally representative. The research represents an in-depth and localized study; findings and conclusions are to be considered in light of Oromia's regional context. Second, the findings from the FGDs are presented as the patterns that emerge from the opinions voiced by the participants during the discussions. Third, this study aims to offer insight into, and reflect on, beneficiaries and service providers' perceptions and experiences with respect to the linkages between quality of institutions and people's preferences as well as the quality of implementation of social protection interventions. The study does not identify causality. We report associations following respondents' suggestions and ideas.

Findings

We present findings with respect to i) the quality of institutions, ii) people's preferences, and iii) the quality of implementation of social protection interventions in line with the proxies defined above. It does so by drawing on comparisons between PSNP and IN-SCT sites.

Quality of institutions

Proxies for the quality of institutions include the clarity of roles and responsibilities and efficiency of collaboration between main service providers in the kebeles, including SWs, DAs, HEWs and KMs, and the establishment and the degree of functioning and regularity of meetings of CCCs and KACs.

Findings for these two proxies suggest that institutions in IN-SCT kebeles included in this study function more effectively in comparison to those in PSNP kebeles. Table 2 presents an overview of illustrative quotes followed by a discussion of findings for each of the proxies for quality of institutions.

Clarity about roles, responsibilities and collaboration among service providers. Findings indicate that the clarity of roles and the relationship among service providers, including DAs, HEWs, KMs and SWs, in IN-SCT kebeles is stronger compared to PSNP kebeles. The availability of SWs in the IN-SCT kebeles is a key factor in greater collaboration between service providers in IN-SCT vis-à-vis PSNP kebeles, and allows service providers to more effectively perform their tasks in IN-SCT kebeles compared to PSNP kebeles.

Service providers in the IN-SCT kebeles in Adami Tulu report that collaboration among service providers is effective and that the roles and responsibilities in terms of who should do what during the different phases of implementation of social protection interventions are clear. For example, the KM in IN-SCT Kebele 2 maintains contacts with service providers such as DAs and HEWs and interacts regularly with school directors to monitor school attendance. Also, SWs in the IN-SCT kebeles support the organization and running of meetings for different service providers and community groups. PDS clients attested to the important role of SWs, highlighting their roles in monitoring whether children attend school, and following up when they do not, and advising direct support clients to use the cash transfer received for food and child education. The latter is an essential part of the implementation of the co-responsibilities for IN-SCT clients. Notwithstanding the positive collaboration among service providers in IN-SCT kebeles, many service providers also reported to be overstretched. They struggle with the need to address their own household and family responsibilities while accomplishing their professional assignments.

In the two PSNP kebeles in Arsi Negele studied, service providers reported that they were not entirely clear about their responsibilities in implementing PSNP interventions. DAs and HEWs reported that a lack of training and awareness were important challenges. In both PSNP kebeles, DAs, HEWs and KMs did not know that co-responsibilities included clients having to send their children to school or that pregnant and lactating women should attend antenatal care.

Table 2. *Overview of quotes regarding service providers and community structures*

	IN-SCT	PSNP
Clarity about roles and responsibilities of service providers and efficiency of collaboration between service providers in the kebele (i.e. DA, HEW, KM and SW)	"We are working and collaborating together. We are especially working well with the social worker, the kebele chairman and the kebele manager." [AT-K1-HEW, 26-Apr-2017] "The most important collaborations are those between the social worker and development agent and social worker with health extension worker, even though all others are also important for the program." [AT-K1-KM, 29-Apr-2017]	"What kind of integration you are talking about. We development agents are the only actors at kebele level. With regards to woreda actors, I think there is weak integration between woreda finance and agriculture office." [AN-K1-DA, 27-Apr-2017]
Efficient and regular functioning of community structures and grievance redress mechanisms (such as CCCs and KAC)	"The first community care coalition was established in November 2015 but it was dismantled following the country wide public unrest which destroyed so many institutions. The "renaissance" of government brought new people to offices. The current community care coalition was established in August 2016." [AT-K1-CCC-FGD, 25-Apr-2017] "The community cate coalition was established in February 2016." [AD-K2-CCC-FGD, 24-Apr-2017] "We are aware about social protection activities which are presented at community meeting where updates are shared. Information is also provided and posted on a board at the centre of the kebele… Transparency is ensured through disclosing plans and reports at the general meeting." [AT-K1-FPW-MPW-TDS-FGD, 25-Apr-2017] "Transparency is ensured through disclosing plans and reports at the general meeting. This is mainly done to target PSNP beneficiaries. After posting the results, three days are given to the people to confirm whether the right people have been shortlisted." [AT-K1-MPW-FGD, 25-Apr-2017]	"No, as far as I know community care coalition and grievance mechanisms are not yet established" [AN-K1-DA-KII, 27-Apr-2017] "There is no one assigned in our kebele to manage community care coalition and grievance redress mechanisms." [AN-K1-FPW-FGD, 27-Apr-2017] "The woreda/kebele leaders inform the community members about the PSNP activities through meetings attended by most of the community members." [AN-K1-FPW-FGD, 27-Apr-2017] "The kebele administration usually informs the community about the PSNP activities at the general meeting." [AN-K1-FPW-FGD, 27-Apr-2017]

Notes: a) *Selected woredas and kebeles:* Arsi Negele woreda (AN); Adami Tulu woreda (AT); Kebele 1 (K1); Kebele 2 (K2); b) *Research method:* Focus Group Discussion (FGD); Key Informant Interview (KII); c) *Respondents:* Community Care Coalition (CCC); Development Agent (DA); Female Public Worker clients (FPW); Health Extension Worker (HEW); Kebele Manager (KM); Male Public Workers clients (MPW); Social Worker (SW); Temporary Direct Support clients (TDS).

Source: Authors.

Furthermore, the HEWs conveyed a limited understanding of their role in monitoring co-responsibilities. For instance, one HEW was unaware that primary caregivers of malnourished children are eligible for TDS.

The IN-SCT pilot employs SWs for the specific purpose of monitoring and following up on co-responsibilities as well as coordinating cross-sectoral responses for clients across service providers at kebele level. In PSNP kebeles, these tasks are meant to be undertaken by regular government SWs or shared among other service providers, including HEWs and DAs. The two PSNP kebeles included in this study do not have SWs, as confirmed by PSNP clients. This is an important explanation for the lack of awareness and collaboration in these kebeles.

Establishment and efficient functioning of community structures. Community structures in the form of CCCs and KACs are established and functioning in the two IN-SCT kebeles included in this study. Meetings do not take place on a regular basis, but only when needs arise.

Despite the lack of regular meetings, CCCs are reported to follow up on community members who are eligible for TDS and who cannot perform labour intensive PW or are chronically food insecure. However, various coalition members indicated that the coalitions do not meet frequently enough to meet the demands expressed by the PDS and TDS clients. Findings also suggest that the functioning of CCCs is very sensitive to external shocks and their impact on individual members. The drought in 2016 and early 2017, as well as civil unrests in the region in late 2016 and early 2017, undermined the CCCs' functioning. For example, CCC members in IN-SCT Kebele 1 reported that they were less able to dedicate time to discuss public issues and that they had to prioritize their own livelihood activities.

The KACs constitute the mechanisms through which clients and non-clients can complain or voice preferences about the programme. These committees are in place in both of the selected IN-SCT kebeles in Adami Tulu. Male PW clients reported that they are aware about the possibility to report their complaints to the KC, KM, village leaders and DA. Complaints are referred to the KAC through the village leader, who acts as a gatekeeper to the committee. Once the village leader is informed, he brings specific cases to the KAC's attention. However, DAs in both IN-SCT kebeles reported that clients can also directly file their complaints with the committee as indicated in the PSNP implementation manual (MoALR, 2014). KACs were found not to meet regularly, but rather when complaints are made. Community structures – including the CCCs and KACs – were not established or in place in the PSNP kebeles included in this study. However, the KFSTF and CFSTF were established in PSNP kebeles, but these had limited effectiveness.

PSNP clients indicated that they reported complaints directly to the village leader, KC and KM, albeit with differences across the respondent groups. While female PW and TDS clients reported that they file their complaints particularly to the KC, male PW clients and PDS clients file their complaints to village leaders, KC, DA and KM.

People's preferences

This section explores the extent to which social protection clients are able to express their preferences regarding implementation modalities, and whether those preferences are taken into account. We consider to what extent clients engage with CCCs and grievance mechanisms for voicing their preferences and the extent to which such bodies subsequently channel people's requests into the programme implementation of social protection interventions. This is different from what we considered in the previous section, where the analysis was limited to the establishment and functioning of community structures. Table 3 presents an overview of illustrative quotes with respect to the extent to which clients' preferences are expressed when kebele PW activities are decided.

In the two IN-SCT kebeles included in this study, findings point towards a gendered use of grievance mechanisms, suggesting that male PW clients are more likely to raise complaints and to have their preferences reflected in the choice of PW activities. Few female PW and PDS clients in IN-SCT kebeles reported to have voiced complaints to the KC. They reported to be aware about the opportunity to raise their issues to the DA and the KM, but indicated usually not to do so, either out of fear of repercussions or because they do not want to inconvenience kebele officials or service providers. The same female groups of clients indicated to feel unable to influence the choice of the type of PW activities to be implemented at community level, and rather want to follow the DAs' decisions. This is because some members of the CCCs and KACs are also members of other structures where the type of public work to be implemented in the kebele is decided.

By contrast, male PW clients in both IN-SCT kebeles reported to voice their preferences during the general meeting, to the KAC, or to file their complaints directly to the KC or to the DA. In the case of the latter, they subsequently discuss the issues at the kebele council and after thorough discussions, approve and select PW activities. Similarly, TDS clients (who are mostly women) reported to file complaints to the KAC or directly to the KM. Depending on the complexity of the issues raised, the KM either responds immediately or refers the complaint through the established grievance mechanisms. In case of the latter, the issue is discussed in consultation with the other members of the committee.

Table 3. *Overview of quotes regarding clients' preferences*

	IN-SCT	PSNP
Social protection clients are able to express their preferences on social protection interventions through (CCCs and KAC)	"People decide what is to be done when there is the general meeting at community level … and people influence the choice of public work activities through their representatives during the kebele council." [AT-K1-MPW-FGD, 25-Apr-2017] "The list of public work activities is proposed by the development agents and presented at the general meeting. Then the community with full participation approves priority activities through discussion." [AT-K1-TDS-FGD, 25-Apr-2017] "Since the public work activities approved at the community general assembly, the community members have opportunities to influence the type of the public work to be done in the kebele in each year." [AT-K2-MPW-FGD, 24-Apr-2017] "The development agent and kebele officials prepare a list of public work activities and order us to do the public work activities. They organise a meeting to discuss but not much will be changed." [AT-K2-FPW-FGD, 24-Apr-2017] "We do all what the development agent suggests us to do; we can't influence the type of public work activities." [AT-K1-FPW-FGD, 25-Apr-2017]	"The development agent first plans the type of public work activities and presents them to the community. The community will add if there is the need of any improvement to be made otherwise agrees with development agent's plan." [AN-K1-MPW-FGD, 27-Apr-2017] "We do all what the development agent and kebele management decided and people can't influence the type of PW activities." [AN-K2-MPW-FGD, 28-Apr-2017] "We are called to start the public work activities and we do not know the exact mechanism of decision making on the type of public work. We think that development agent and kebele management select types of public work and we then participate in the implementation. They inform and discuss with us just before the starting of the implementation." [AN-K1-TDS-FGD, 27-Apr-2017] "Development agents prepare the proposal of the list of activities then the whole community decided at the general meeting … As the community gave final decisions, they do have a right to accept or reject the development agents proposals." [AN-K2-FPW-FGD, 28-Apr-2017]

Notes: a) Selected woredas and kebeles: Arsi Negele woreda (AN); Adami Tulu woreda (AT); Kebele 1 (K1); Kebele 2 (K2); b) Research method: Focus Group Discussion (FGD); Key Informant Interview (KII); c) Respondents: Female Public Worker clients (FPW); Male Public Workers clients (MPW); Temporary Direct Support clients (TDS).

Source: Authors.

In the two PSNP kebeles included in this study, the ability to voice preferences and have these taken into account is limited. This is unsurprising given that CCCs and KACs are not in place. For complaints, clients refer to the KC or to the KM directly. One DA indicated PSNP clients to be "silent recipients" who are subject to the decisions of woreda and kebele leaders. The leaders were said to inform community members more for reasons of formality or to manage political pressure rather than to promote a discussion with PSNP clients and consider their concerns. Male PW clients in both PSNP kebeles would prefer functioning redress mechanisms, in order for them to contribute to overall levels of community engagement and to increase the involvement of community representatives.

Notwithstanding the absence of functioning community structures for making complaints, individual service providers and staff at the community level act as focal points. While experiences with the KC and KM taking up this role is generally positive, experiences differ across kebeles regarding the DA. Female PW clients reported that when they approach the DA to communicate their preferences regarding the types of PW activities to be implemented at the community level, the DA rarely takes their voices into account in the final approval of activities. Male PW clients in PSNP Kebele 2 reported that they generally follow the DA's decisions without the possibility of influencing those decisions. However, male PW clients in PSNP Kebele 1 explained that the DA presents the list of PW activities to the community, which is approved unless additional activities are suggested to be included.

Quality of implementation of social protection interventions

The quality of implementation of social protection interventions is assessed by observing i) the process of transitioning pregnant and lactating women out of PW activities into TDS, and ii) the process of monitoring compliance with co-responsibilities and support and follow-up in case of non-compliance with co-responsibilities for TDS clients. Table 4 presents an overview of quotes for each proxy with respect to the design and delivery of social protection interventions in the IN-SCT and PSNP kebeles.

Effective transitioning of pregnant and lactating women from public work activities into temporary direct support. Findings show that IN-SCT kebeles are more effective in implementing the transition of eligible clients from PW activities into TDS compared to the PSNP selected kebeles. Clients that are eligible for this transition include pregnant and lactating women and caregivers of malnourished children. SWs play a key role in facilitating this transition. They

Table 4. *Overview of quotes on implementation of interventions*

	IN-SCT	PSNP
Correct and effective implementation of transition of pregnant and lactating women or primary caregivers of malnourished child from PW activities into TDS, including the processes of identification of pregnant and lactating women, confirmation of pregnancy, and transition from PW activities into TDS	"When at public work activities see a pregnant woman, I tell her to stay at home and not to attend public work activities or if a woman brings confirmation about her pregnancy even at one month I will transfer her to TDS until the child gets one year old." [AT-K1-DA-KII, 25-Apr-2017] "Pregnant and lactating women are being given permission to stay at home when they disclose their pregnancy. Some brings a test result to get transferred to temporary direct support as early as possible. When, malnourished children are discovered they are also immediately transition to TDS until the child is recovered." [AT-K2-CCC-FGD, 24-Apr-2017] "There are conditions in which pregnant and lactating women are found working. This happens partly because of development agent's failure to comply with the guidelines and partly when a woman fails to report her pregnancy due to cultural influence and remain working until her pregnancy is visible." [AT-K1-CCC-FGD, 25-Apr-2017]	"We received a direction from the woreda PSNP to transfer the pregnant women and lactating mothers into temporary direct support for 17 months. As per this direction we are implementing it and no monitoring of the activity is done." [AN-K1-DA-KII, 27-Apr-2017] "There is no article work involved in transferring a pregnant woman into temporary direct support apart from sending list of those with similar rights to be excluded from public work activities." [AN-K2-DA-KII, 28-Apr-2017]

(Continued)

Table 4. *Overview of quotes on implementation of interventions* – Continued

	IN-SCT	PSNP
Effective implementation of co-responsibilities for TDS clients, including monitoring of compliance with co-responsibilities and support and follow-up in case of non-compliance with co-responsibilities)	"We know that we encouraged to meet some responsibilities such as to have latrine and to use it properly, to send our children to school, to follow our antenatal visits at the health post (four times during pregnancy period) and postnatal visits (at least once after delivery), to give birth at the health centre, to take immunization for ourselves and our baby, and to have proper feeding practices (exclusive breast feeding up to 6 months of the child age)." [AT-K1-TDS-FGD, 25-Apr-2017] "The social worker comes to our houses and asks whether we are sending our kids to school or not. Additionally, fathers of the children strictly follow on their education as most of us are living with our grandchildren." [AT-K1-PDS-FGD, 25 Apr-2017] "We are not asked to meet any co-responsibilities by the health extension worker or social worker, but the village leaders and the health extension worker call us for a meeting and advise us to deliver at health centre." [AT-K2-TDS-FGD, 24-Apr-2017]	"We don't know anything about co-responsibilities. Even the word is new to me - he said - I heard this word from you just now." [AN-K1-DA-KII, 27-Apr-2017] "We are not aware about any expectations while on rest due to the TDS benefits." [AN-K1-TDS-FGD, 27-Apr-2017] "I do not know about co-responsibilities in this kebele." [AN-K2-DA-KII, 28-Apr-2017] "No co-responsibilities are given in relation to PSNP." [AN-K2-TDS-FGD, 28-Apr-2017]

Notes: a) Selected woredas and kebeles: Arsi Negele woreda (AN); Adami Tulu woreda (AT); Kebele 1 (K1); Kebele 2 (K2); b) Research method: Focus Group Discussion (FGD); Key Informant Interview (KII); c) Respondents: Community Care Coalition (CCC); Development Agent (DA); Permanent Direct Support clients (PDS); Temporary Direct Support clients (TDS).

Source: Authors.

collect monthly reports from DAs and visit PW sites to check whether pregnant and lactating women are working on the sites. In addition, SWs interact with DAs, who are the main gatekeepers in terms of the transition as they provide information about this programme provision to PW clients and approve who can move from PW into TDS. Nevertheless, service providers indicated that the overall quality of the transition of clients from PW into TDS could be strengthened. DAs in particular mentioned the need for further awareness raising among women to encourage those that are eligible to claim their rights.

In the PSNP kebeles, the transition from PW into TDS appeared to function relatively well, although not as effectively as in the IN-SCT kebeles. TDS clients reported to have been provided with basic orientation by DAs and HEWs about their rights to be transferred to TDS. As no SWs operate in the PSNP kebeles, the process of transition of eligible TDS clients out from PW activities is mainly supported by the DAs and the HEWs. This leads to implementation issues. For example, DAs ask clients for a family member to replace them in PW activities when transitioning into TDS. This is against PSNP policy and guidelines in the implementation manual.

Effective monitoring of compliance with, and follow-up on, co-responsibilities for TDS clients. The findings show that the two IN-SCT kebeles are more effective in the implementation and monitoring of compliance of co-responsibilities compared to the PSNP kebeles. In the IN-SCT kebeles included in this study, awareness of co-responsibilities for TDS clients was high among those interviewed, owing to the SWs’ role of reaching out to social protection clients and facilitating linkage with service providers. Implementation of co-responsibilities is not without challenges however. SWs, who are primarily responsible for the effective implementation of co-responsibilities, were found to be overloaded. They are responsible for multiple kebeles, leading to a high workload and little time to perform their duties in each kebele.

In the PSNP kebeles, quality of implementation of co-responsibilities was generally low. HEWs, DAs and KMs were not aware of the concept of co-responsibilities. Female PW clients mentioned that BCC sessions are not held regularly, and the DA mainly provides clients with financial savings advice. Both male and female PW clients did report receiving information from the HEW on immunization, family planning, antenatal care and postnatal care follow-ups, the utilization of bed nets to prevent malaria, and good hygiene practices. Equally, male PW clients reported that the school director encourages them to send their children to school. However, the advice provided by HEWs and school directors is likely to be part of regular health and education outreach rather than to result from the implementation of PSNP co-responsibilities.

The type of public work activities implemented is a reflection of people's preferences. Findings show that PW clients in the IN-SCT kebeles have greater access to community structures and are better able to communicate their preferences and concerns about the type of PW activities implemented in the community. In particular, the findings show that male PW clients engage in discussions held at community meetings and submit their list of activities to the DA who presents them to the general meeting and to the kebele council that is responsible for the decision. Therefore, the discussions about PW activities held at community meetings support the decision process and help to identify PW activities that reflect people's needs and PW clients' preferences.

In the selected PSNP kebeles, male PW clients do not have access to community structures and therefore the level of discussion about public activities to be implemented is limited. The DA proposes PW activities, and activities are then decided after a limited discussion during the general meeting at the kebele. The choice of PW activities implemented does not necessarily reflect PW clients' preferences.

Again, we find a gendered effect. In the selected IN-SCT and PSNP kebeles, female PW clients have reported that they do not engage effectively in the discussion of activities to be implemented. This is because of fear of repercussions or they believe their concerns will not be represented, and that kebele representatives will decide the type of PW activities.

Discussion

This section reflects on the hypotheses as informed by the three elements of the conceptual framework. The first section elaborates on the link between the quality of institutions as well as the effective implementation of social protection interventions. The second section discusses how people's preferences may influence the quality of implementation of social protection interventions.

Quality of institutions and quality of implementation of social protection interventions

The findings confirm that higher quality kebele institutions are associated with greater quality in the implementation of social protection interventions.

Collaboration between service providers and the establishment and functioning of community structures is stronger in the IN-SCT kebeles compared to the PSNP kebeles. This is associated with the more effective transitioning of pregnant and lactating women into TDS, as well as stronger monitoring and follow-up of co-responsibilities. Service providers in the IN-SCT kebeles have continuous and regular interactions with clients, contributing to improved understanding of the clients regarding co-responsibilities, better monitoring of co-responsibilities and, in turn, greater compliance with co-responsibilities. In addition, service providers in IN-SCT kebeles appear to have greater clarity about their roles and responsibilities with respect to who should do what in terms of supporting the transition out of PW into TDS.

SWs also play an important role in the improved quality of implementation. The SWs visit IN-SCT clients and inform them about the importance of implementing co-responsibilities, and make referrals to kebele-level government structures (administration, DA and HEW). While SWs implement their tasks in IN-SCT somewhat effectively, they do report being overloaded as a result of being assigned with a high number of kebeles. This undermines the quality of implementation.

Finally, the IN-SCT kebeles have functioning CCCs and KACs, and they appear to offer an important accountability mechanism that may contribute to more effective implementation. Yet findings also attest to the sensitivity of community structures to shocks. Particularly covariate shocks (such as drought or civil unrest) that affect all members of committees can cause the mechanism to break down.

People's preferences and quality of implementation of social protection interventions

Overall, findings show that clients in kebeles that exhibit greater collaboration among service providers and have functioning community structures and grievance redress mechanisms – in this case, in IN-SCT kebeles – are better able to file complaints and express their preferences to CCCs or to members of a grievance mechanism. Findings suggest that in the absence of strong community structures, the ability to raise complaints and have voice taken into account is highly dependent on the personal engagement of the individuals that act as focal points in the absence of community committees.

Yet, the availability of community structures and grievance mechanisms is no guarantee for people's preferences to be factored into the implementation of social protection interventions. Even though female PW and PDS clients are aware of the possibility to file complaints, they tend not to do so, because of fear of repercussions, while some prefer not to inconvenience the CCC and members of grievance mechanisms. Male PW clients often use community structures and are able to express their preferences with respect to the choice of PW activities. This is also reflected in the type of PW activities implemented in the selected

IN-SCT kebeles, which is the result of discussion and people's engagement and participation. For PSNP kebeles, clients have limited access to community structures and PW activities are mainly decided by the kebele representatives.

This gender dynamic is not exclusive to the IN-SCT kebeles where mechanisms are in place. In the PSNP kebeles, male PW clients reported that they propose changes to the DAs' plans when activities are presented to the community during general meetings. Female PW clients instead report that decisions regarding the type of PW activities to be implemented in the kebele are mainly driven by the DA and the influence of PW clients is limited.

Conclusion and policy implications

This article expands on the existing but limited literature on factors underpinning the quality of implementation of social protection programmes. Using a qualitative approach and using Ethiopia's PSNP and IN-SCT as a case study, this article explores the links between the quality of institutions and people's preferences in relation to the quality of implementation of social protection interventions.

Findings suggest that greater quality of institutions – proxies for which we use interaction among service providers and better functioning community structures at kebele (local) level – allows for a stronger implementation of social protection interventions. The implementation of co-responsibilities, one of the complementary interventions alongside the provision of cash transfers, is more effective in kebeles with greater engagement among service providers and better functioning community structures.

This research also supports the notion that people's abilities to voice their preferences can shape the implementation of social protection interventions. Stronger community mechanisms at local level facilitate voices to be taken into account. These findings are gendered, however. Across the board, female beneficiaries were less likely to voice their preferences or, if they did, to have their voices taken into account.

In reference to the specific situation in Ethiopia, it is evident that continued investment in PSNP structures is crucial for the quality of its implementation at the local level. The inclusion of new components in the PSNP4 – such as co-responsibilities and the transition from PW to TDS for pregnant and lactating women – and the subsequent demands for implementing those components require strong linkages to and collaboration across service providers. It is important to consider these elements at this critical time when the country is discussing the design of the fifth round of the PSNP. Greater capacity building of service providers, community members and social protection clients is imperative for the realization of an effective systems approach in social protection.

Glossary

BCC	Behaviour Change Communication
CCC	Community Care Coalition
CFSTF	Community Food Security Task Force
DA	Development Agent
FGD	Focus Group Discussions
HEW	Health Extension Worker
IN-SCT	Improved Nutrition through Integrated Linkages to Social Services and Social Cash Transfer
KAC	Kebele Appeal Committee
KC	Kebele Chairperson
KFSTF	Kebele Food Security Task Force
KII	Key Informant Interview
KM	Kebele Manager
MoALR	Ministry of Agriculture and Livestock Resources
MoE	Ministry of Education
MoH	Ministry of Health
MoLSA	Ministry of Labour and Social Affairs
PDS	Permanent Direct Support
PSNP	Productive Safety Net Programme
PSNP4	Fourth Round of Implementation of the PSNP
PW	Public Works
SW	Social Worker
TDS	Temporary Direct Support

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BOOKS

BOOK REVIEW

Organisation for Economic Co-operation and Development. **The future of work: OECD employment outlook**. Paris, 2019. 335 pp. ISBN 978-92-64-72715-1.

This thought-provoking annual report addresses the possible social and economic threats for the future of work associated with the current technological shift (artificial intelligence, greater digitalization and automation), in a context of ongoing globalization and demographic change. Of concern is the possible decline of the quality and quantity of jobs, limited or no social protection coverage, inadequate or no assistance in job search and the scarcity and inadequacy of access to indispensable skills-upgrading and life-long learning, on which access to work with new technologies and the related benefits depend. While acknowledging that the "digital divide" presents real risks of social exclusion as well as rising inequalities related to age, gender, precarious work and low pay, with ramifications for social cohesion, these can be addressed through appropriate government policy and institutions.

It cautions against dramatic scenarios that exaggerate potential job losses due to automation. It provides evidence about the potential of new technologies to improve the quality of life in society and at work, enhancing economic performance by raising productivity and the quality and coverage of services. In addressing the various issues at play, the report focuses attention on people and their well-being. It underlines the positive potential path to be followed to achieve more inclusive and sustainable growth.

In other words, it claims that despite the anxiety about the future volume of jobs, the apocalyptic scenarios of job destruction depicted by various researchers are not likely to happen. Nevertheless, it does caution that jobs have become more polarized, with a significant growth of high-skilled jobs, lesser growth in low-skilled jobs, declining employment in manufacturing and rising employment in the service sector. These trends involve difficult transitions and adaptation by both employers and workers to the new work context and the need for the acquisition of new skills. This transition affects some workers more than others, notably young people without tertiary education. The past decade witnessed an increasing risk of non-employment and under-employment for all workers, especially the young and those with low or medium levels of education. Women face a much higher risk of under-employment than men in most OECD countries and are more likely to work in low-paid jobs. If these disparities persist, social divisions may deepen that could negatively affect productivity, growth, well-being and social cohesion. Moreover, rapid population ageing in the coming decades could result in shortages of qualified labour, as the elderly retire, which could accelerate automation and increase demand for migrant workers.

The report offers the crucial message that the future of work can be "mastered" by implementing policies that can capture and use the vast potential of digital and technological developments to address the problems they pose. It stresses the need to help workers in their job transitions with effective and timely employment services, providing early intervention measures, stressing the importance of formulating comprehensive adult learning strategies and offering life-long learning opportunities, especially for low-skilled adults in order to prevent skills obsolescence and facilitate job transitions. No less important, it underlines the importance of adapting social protection to ensure coverage for the growing number of workers in non-standard precarious jobs, including the bogus self-employed who are not classified as "employees" and thus have more limited access to social protection and employment protection measures. Moreover, the rapid and continuing changes in job tasks, especially those transformed by greater automation and digitalization, underlines the importance of access to collective bargaining and social dialogue to facilitate a smoother transition and adaptation to the new work context, leading preferably to more secure and inclusive labour markets.

As regards the sustainability of social protection, the report stresses that the pessimistic projections of massive technological unemployment seems unlikely in most OECD countries, most of which have actually benefited from increasing employment rates. The authors estimate that over the next two decades automation could destroy 14 per cent of existing jobs and drastically change individual job tasks, while an additional 32 per cent of jobs face real risks associated with social exclusion and rising inequalities among low-skilled employees. This is especially so for many younger workers in low quality, precarious jobs who are unlikely to participate in training: hence, the need for appropriate social protection, occupational health and safety standards and employment protection measures. One important need is to ensure collective bargaining rights to negotiate agreements for staff with different types of employment relationship. Indeed, such collective agreements have been successfully negotiated in temporary work agencies and in cultural and creative industries, and even in countries where trade unions are weak.

Policies to build a rewarding and inclusive world of work require adequate funding – especially for strengthening adult life-long learning and social protection – which may be difficult to find in the current context of constrained public finances. Generally, a review of spending priorities and the possible role of their tax systems may be necessary. Governments should expect to confront decisions about how to finance new initiatives and who should pay for them. However, this is surmountable, as several important policy options entail little or no cost for public finances, and may even increase tax revenue. Also necessary, however, are effective public employment services and activation measures that accelerate the return to work, reducing the cost of unemployment benefits, besides being likely to improve productivity by raising the quality of job matches. Removing unintended fiscal incentives for self-employment and combating "false self-employment" could boost revenues; integrating the "platform economy" into the tax system could widen the tax base and increase revenues. This process may raise political discussions about what is fair and cost effective, and how the allocation of costs and the access to the programmes will affect the performance of the economy, business, workers, consumers and citizens. A case is made for new public-private partnerships to provide adequate and acceptable responses to the changing world of work.

The report includes useful guidance for concrete "policy directions" that should maximize the opportunities for designing and implementing policies that would create better jobs and decent status for all workers, improve working conditions and career paths, and extend social protection. The ultimate aim being to enable all to participate in inclusive growth. The report consists of seven chapters.

Chapter 1 provides an overview of recent developments, trends and a possible outlook for the future of work, including opportunities and risks. It contains a succinct recapitulation of the main policy directions for regulating the labour market, the role of labour relations, social dialogue and collective bargaining, the role of a comprehensive adult learning strategy and the major role of social protection in preparing a future which “works for all”.

Chapter 2 analyses the major trends transforming the labour market and their implications for jobs quality and quantity. It notes that there is a risk of increasing disparities if large segments of the workforce are not able to benefit from the opportunities that the economy offers. The main challenge for policy-makers is therefore to prevent growing disparities, to avoid discontent that could damage productivity, growth, well-being and social cohesion. It also points to the fact that technology and globalization may have an adverse impact on working conditions. While technology can potentially produce positive impacts on job quality, these gains have not been uniform across the workforce, especially in non-standard jobs. While trade openness and technological change have contributed to increases workers’ earnings and living standards, on average, large segments of the labour force’s earnings have stagnated during the past decade. Moreover, unlike previous decades, the productivity gains generated by the economy have not resulted in broadly shared wage gains for all workers. There is a cross-country evidence of rising pay inequality that leads to other forms of inequality of opportunity, including in the areas of education and health. The report notes that such inequalities lead to lower mobility for individuals and lower productivity for economies. Moreover, without effective policy, continuously rising income inequality could create an elderly underclass. Yet, cross-country evidence on rising inequality shows that there is nothing inevitable about its rise. Policies and institutions can mitigate the adverse impact of new technologies, globalization, and reduce the risks higher inequality posed by population ageing.

Chapter 3 deals with three key policy areas for addressing job stability, under-employment and the availability of jobs with different pay levels. While the prevalence in the three areas differs among countries, available data indicate deteriorating labour market conditions across the OECD countries for the young and those with less than tertiary education, who are more exposed to the risks of being out of employment, in low-pay employment or under-employed. The probability of a young person becoming unemployed after leaving education increased in 25 countries. More highly educated youth have generally fared better, but they too are exposed increasingly to low-pay employment. These findings highlight the need for improved opportunities for the new cohorts entering the labour market, but also for special attention to be given to previous generations of young people who experienced bad labour market outcomes, which have had a lasting impact on wage and career trajectories over the life cycle. To address these complex issues, a multifaceted response is required, via skill policies that can improve the labour market experiences of new entrants, while supporting the career progression of older cohorts. More generally, skill policies need to adapt to ensure that training programmes reach those in less stable careers. In the light of increasing job insecurity and the rising number of workers that are not able to benefit from social protection systems, these systems need to be reviewed.

Chapter 4 deals with the role that labour market regulation should play to protect workers adequately in a changing world of work. Indeed, labour market regulation plays a major role in protecting workers, given that dependent employee status (full-time, permanent employees working for a single employer) has been key for coverage. The emergence of new forms of so-called “non-standard work” (“self-employed”, independent workers, those with zero hour contracts, etc.) challenges this. Some non-standard workers are in a "grey zone" between dependent employment and self-employment. They are often excluded from full access to the protection of labour law, social protection, collective bargaining (dealt with in Chapter 5) and lifelong learning (dealt with in Chapter 6). The chapter examines the rationale and policy options for extending certain labour and social protection rights to these non-standard workers (while limiting to a minimum those in the "grey zone").

Chapter 7 explores gaps in existing social support provisions and those that may result from ongoing labour market transformations. It provides an overview of the main channels through which an acceleration in the job allocation process and more varied and fragmented employment patterns may alter the functioning and effectiveness of social protection. It presents evidence on social protection gaps between standard employees and workers in non-standard forms of employment. It summarizes data on the statutory rules of social protection for non-standard workers and explains the reasons why these workers may not receive support even if statutory rules do not formally exclude them. It also provides recent empirical evidence on the level of support that both categories of workers receive in practice. It considers options for addressing and preventing gaps in social protection coverage and adequacy.

In some countries, workers engaged in independent work or short-duration or part-time employment are 40–50 per cent less likely to receive any form of income support during an out-of-work spell than standard employees. Accessibility gaps can be especially large for the self-employed. For non-standard workers who receive support, the levels of benefits can be much lower than for standard employees. Pension coverage tends to be less comprehensive for non-standard workers than for regular employees, exposing them to greater risks of low income and poverty in old age. Moreover, the self-employed can opt out partially or fully from pension schemes that are mandatory for dependent employees. In some countries, mandatory contributions are lower for the self-employed than for dependent employees, or include options allowing the self-employed to reduce their mandatory contributions – all these provisions lead to reduced future pension entitlements.

In a context of technological change, social protection provisions in tandem with labour market regulation can facilitate the growth of non-standard employment. Nevertheless, going forward, different social protection strategies are possible; the authors note that several countries are assessing challenges that automation and changing working arrangements pose for social protection. Key priorities include: i) the correct classification of workers' employment status; ii) entitlement criteria that respond to changes in people's need for support, and iii) making social protection rights portable between sectors and jobs.

To conclude, adapting social protection to evolving labour markets requires a proactive and iterative approach, one that addresses existing and sometimes long-standing protection gaps, while adapting policy approaches as labour markets evolve. Offering guidance, this detailed report provides a substantial overview of the implications of the technological shift for addressing the basic issues, problems and concerns about the future of work. It offers a timely overview of our current understanding of the issues at play – notably the major trends that transform labour markets, the quantity and evidence about risks, and the opportunities and potential for positive change.

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