

Inequality and social security in the Asia-Pacific region

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Inequality and social security in the Asia-Pacific region

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Executive summary

High income inequality can engender a wide range of negative impacts. It can harm child development, increase ill-health and mortality, limit the status of women, generate distrust in government, exacerbate levels of violence and social unrest, slow the pace of poverty reduction and hinder economic growth. Therefore, it is imperative that countries take action to tackle high inequality and create fairer and more decent societies.

The Asia-Pacific region is characterised by high levels of income inequality. While there is greater equality in Central Asia and the Pacific, the most unequal sub-regions are South Asia and East Asia. Income inequality varies greatly between countries, ranging from a Gini coefficient of 19 in Azerbaijan to 52 in India. Further, income inequality is likely underestimated across the region while wealth inequality appears to be much greater than inequality in incomes.

Investments in social security are one of the most effective means of tackling inequality. Nonetheless, countries need to do more than rely only on social security to tackle inequality and should take forward other policy measures that are effective in reducing inequality, such as investments in other public services and labour market interventions to deliver decent work and fair wages. Through both transfers and tax, international experience has demonstrated that welldesigned social security systems transfer income from the better-off to the less well-off with the aim of building more equal and fair societies and, in doing so, strengthen human capital and contribute to economic growth. Across high income countries, social security has proven to be an effective tool for reducing inequality. For example, direct transfers and taxes have reduced income inequality by over a third across high-income countries and, globally, there is a clear correlation between levels of investment in social security and reductions in inequality.

While it is often believed that the best means of tackling inequality is by targeting social security transfers at the poorest members of society, this assumption, while intuitive, is not supported by the global evidence. Instead, the highest reductions in inequality have been achieved by countries that invest in universal social security. This 'paradox of redistribution' is, to a large extent, the result of the higher expenditures generated by universal schemes, which demand higher levels of taxation from the wealthier members of society, which is then redistributed across the population. These higher expenditures are, to a large extent, driven by the popularity of universal schemes and the fact that the main taxpayers are included as recipients. As a result, they are more willing to accept higher levels of taxation.

Most countries in the Asia-Pacific region have not yet established modern universal social security systems. Instead, they have bifurcated systems in which public service pensions and social insurance schemes are offered to those in the formal economy – where the better-off members of society tend to be over-represented – while small social assistance programmes are provided to the poorest members of society. This results in the exclusion of a large proportion of the population from the social security system, often referred to as the 'missing middle.' Such a system will be less effective in tackling inequality than the type of modern, universal lifecycle social security systems found in high-income countries. Nonetheless, there are some countries in the Asia-Pacific region that have begun to make the transition towards these more modern systems.

Across the Asia-Pacific region as a whole, the evidence is unclear on whether current social security systems reduce inequality. While some studies have shown a positive impact, others have found the opposite. This should not, however, be surprising given the prevailing social security model in many countries. In those countries where social security mainly benefits the better-off in the formal economy, it may well exacerbate inequality. However, when individual countries are examined,

there is good evidence that social security has reduced inequality. Further, in line with international evidence, in countries with more universal systems and higher levels of spending, the impacts on inequality have been much greater than in countries where poverty targeting has been prioritised.

If Asia-Pacific countries wish to tackle inequality effectively, there will need to be a fundamental shift away from the prevailing bifurcated system towards modern, multi-tiered, universal social security systems. The analysis in this paper shows that, if countries make this shift – based, initially, on establishing universal child, disability and old age benefits – the impacts on inequality could be significant. In simulations across four countries, the paper shows that a recurrent investment of one percent of GDP in a modern, inclusive lifecycle system would bring about a reduction in the Gini coefficient of between 4.9 and 7 percent.¹ With an investment of 2 percent of GDP, the impact would be between 9.8 and 13.6 percent of GDP. The impact continues to increase as investment grows so that, at 3 percent of GDP, the fall in inequality would be between 14.5 and 19 percent. If countries were to introduce other policy measures that help tackle inequality alongside an expansion in their social security systems, the reductions in inequality would be even higher.

There would, of course, be winners and losers from this investment once tax is accounted for. Across the four countries, between 62 and 70 percent of households would, on average, experience a net increase in consumption, with between 30 and 38 percent paying, on average, more in tax than they would receive in benefits. Those experiencing the highest increases in consumption would be the poorest members of society, demonstrating that a truly universal social security system can be very pro-poor. Redistribution would be effective and fair and would result in more equal societies. In fact, given the likely positive impacts on individual and national wellbeing including greater economic growth, everyone would end up as a winner by enjoying the broader societal benefits of greater equality such as better health, greater economic growth, social cohesion and more peaceful societies. Further, given that lower inequality contributes to economic growth, those paying the highest taxes may, in the long run, end up with higher incomes compared to those they would have had if their countries had not tackled inequality.

If countries in the Asia-Pacific region are to tackle inequality through social security, it will be necessary to find the fiscal space. The main means for governments to generate additional revenues will be through strengthening national social contracts. By investing in universal social security, countries could build a virtuous circle of greater trust in government, a stronger social contract, higher revenues from taxation and, therefore, further investment in good quality, universal public services.

Nonetheless, to begin this virtuous circle, countries will need to find resources that will enable them to fund the initial expansion of their social security systems. A range of options exist but a basic principle should be increased solidarity across society, with the wealthier members of society – who can afford to pay more tax – taking on the greatest responsibility. This could involve higher income tax rates for the rich as well as wealth taxes and taxes on income from capital, such as interest, dividends and capital gains. Such taxes would be progressive since income from capital is skewed toward the rich. Other options could include an expansion of sin taxes on alcohol, tobacco and gambling and green taxes on fossil fuels. The international community should consider further measures to reduce the debt burden on poorer countries in the Asia-Pacific region while there needs to be greater international cooperation to reduce illicit financial flows out of countries and build a fairer global tax system, as is currently happening with corporation tax. Further, tax collection needs

¹ The term investment is used because social security enables societies to build human capital, generates higher economic growth and contributes to peace and stability.

to be enforced and more people need to be brought into national tax systems. Universal social security schemes themselves could also be used to bring more people into the tax system.

If countries in the Asia-Pacific region make the move to more modern, universal lifecycle systems, this report has shown that the impacts on inequality would be impressive. And, the more they invest, the higher will be the impacts. Countries would also be likely to see increases in human capital, a more dynamic and productive workforce, more effective poverty reduction, greater economic growth and stronger social contracts. The politicians responsible for these investments would enjoy the political rewards that derive from implementing popular policies.

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Acronyms

ADB	Asian Development Bank
AHS	Annual Household Survey (Nepal)
APIS	Annual Poverty Indicators Survey (Philippines)
CMP	Child Money Programme (Mongolia)
COVID-19	Coronavirus disease 2019
CSES	Cambodia Socio Economic Survey
GDP	Gross Domestic Product
HIES	Household Income and Expenditure Survey
HIICS	Household Integrated Income and Consumption Survey (Pakistan)
HSES	Household Socio Economic Survey (Mongolia)
IFF	Illicit Financial Flows
IHDS	India Human Development Survey
IHS	Integrated Household Survey (Georgia)
ILO	International Labour Organisation
IMF	International Monetary Fund
ITUC	International Trade Union Confederation
L2CU	Listening to the Citizens of Uzbekistan
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
PC	Per capita
РКН	Program Keluarga Harapan (Indonesia)
PPP	Purchasing Power Parity
SDG	Sustainable Development Goals
SES	Socio Economic Survey (Thailand)
SMERU	Social Monitoring and Early Response Unit (Indonesia)
SOCX	OECD's social expenditure database
SUSENAS	National Socioeconomic Survey (Indonesia)
TSA	Targeted Social Assistance (Georgia)
UCB	Universal Child Benefit
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNICEF	United Nations Children's Emergency Fund
USA	United States of America
VHLSS	Vietnam Household Living Standards Survey
WID	World Inequality Database
UNU-WIDER	United Nations University World Institute for Development Economics Research
WIID	World Income Inequality Database
WoRLD	World Revenue Longitudinal Data (IMF)

1 Introduction

There is now global – though not unanimous – recognition that high levels of income inequality are neither good for countries, nor for their citizens. Gone are the days when it was argued that, as long as poverty rates were falling, no-one should worry about high levels of inequality. Rather, over recent decades evidence has gradually mounted of the damage that can be caused to economic, social and health outcomes by inequality.

The change in thinking has been reflected in the international development goals. The Millennium Development Goals (MDGs) – agreed in 2000 – were silent on inequality, likely reflecting the relaxed attitudes at the time to inequality among many global policy makers. By 2015, thinking had radically changed and the Sustainable Development Goals (SDGs) clearly expressed the absolute necessity for countries to tackle inequality: SDG 10 articulates the goal to 'reduce inequality within and among countries.'

Yet, in many countries – including across the Asia-Pacific region – levels of income inequality are still high and, in some, they continue to rise. In fact, the IMF (2021) claims that inequalities in incomes have been exacerbated by the COVID-19 crisis. Policymakers in many countries seem either unwilling to address it or are unaware or unconvinced about the policy tools at their disposal. Given the harm that can be caused not just to individuals and families, but to entire nations, by high inequality, it is imperative that governments take measures to tackle it.

Across much of the Asia-Pacific region the challenge of high inequality is exacerbated by widespread low incomes in an absolute sense. As Figure 1-1 shows, in most countries families are living on less than \$10 per person per day, in purchasing power parity (PPP) terms, while in some the majority have less than \$5.50 (PPP) per day each to live on. While this may seem generous when compared to the \$1.90 (PPP) and \$3.20 (PPP) international poverty lines, it needs to be borne in mind that the poverty line in the USA is set at around \$20 (PPP) per person per day. Most people in the Asia-Pacific region would, if they lived in the USA, be regarded as destitute. Therefore, not only are people struggling due to low incomes, but they also experience the injustice of a small proportion of the population doing much better than them.

1 Introduction



Figure 1-1: Proportion of the population under different levels of relative income across countries in the Asia-Pacific region

Source: Povcalnet. Note: Values of poverty lines are in PPP terms, in 2011 prices.

The aim of this paper is to provide an overview of levels of income inequality in the Asia-Pacific region and understand the likely impacts that it is having on people and nations.² The main measure used in the paper to assess inequality is the Gini index, which is described in Box 1-1. The paper also examines how investments in social security could help countries in the region tackle inequality.

² While the paper focuses on income inequality, it occasionally uses consumption as a proxy for income, due to data constraints.

Box 1-1: What is the Gini Coefficient?

The Gini coefficient is the most well-known indicator of inequality. To understand what it captures, it is useful to refer to a graphic representation of inequality, the Lorenz curve. Individuals are ranked from poorest to richest, with the cumulative percentage of the population represented on the horizontal axis and the cumulative percentage of income on the vertical axis. If income were equally distributed, the Lorenz curve would correspond to the 45 degree line.

However, in all societies, the actual cumulative distribution of income is unequal and follows a line below the 45 degree line, known as the Lorenz curve. The Gini coefficient is calculated as a ratio between area A and area A+B. The higher the ratio, the more unequal the country.

Figure 1-2: Pictorial representation of the Lorenz Curve



Cumulative share of people from lowest to highest incomes 100%

Social security is, in fact, one of the main tools used by countries to tackle income inequality. When designed well, it redistributes income from the better-off members of society to the majority of the population through the provision of regular and predictable cash transfers. Social security systems are well-established in most high-income countries and have played a key role in tackling inequality and poverty while also promoting sustainable economic growth. While most Asia-Pacific countries have some form of social security in place, in most systems are still underdeveloped, although there are some examples of good practice in the region. As the paper will show, wherever social security systems are in place, it has brought about reductions in inequality although the extent to which it is effective depends on the level of investment and the design of systems, with universal systems counterintuitively performing much better than those targeted at the poorest members of society.

The paper is organised as follows. Chapter 2 offers an overview of the evidence on the harm that can be caused by high income inequality while Chapter 3 describes the current state of inequality in the Asia-Pacific region. A description on the theory and evidence of how social security helps address inequality is provided in Chapter 4 before Chapter 5 outlines the evidence from the Asia-Pacific region on how social security has tackled high inequality. Chapter 6 outlines a set of simulations that demonstrate how countries could tackle inequality by investing in social security, while Chapter 7 examines potential financing options for countries that wish to expand their social security systems, especially following the COVID-19 crisis. Chapter 8 concludes the study.

2 High income inequality and its impacts

2 High income inequality and its negative impacts

Global evidence has demonstrated that high levels of income and wealth inequality can have a wide range of negative impacts, many of which are likely to be found across Asia. Inequality can affect individuals, in terms of their health and wellbeing, but it can also damage countries at a macro-level, including by undermining national social cohesion and economic growth. Together, these negative impacts provide a strong rationale for countries taking vigorous action to tackle inequality and reduce it to levels that produce much more positive outcomes. It is no coincidence that many of the countries at the top of the global index on happiness are some of the world's more equal countries.³

While it is well-established that low incomes and poverty can harm children, setting back their development, there is evidence that inequality can add to this. Using UNICEF's index of child wellbeing, Pickett and Wilkinson (2009) have demonstrated that, when looking at rich countries, lower child wellbeing is strongly correlated with inequality but is not at all related to average incomes within each country. They also show that higher inequality is associated with higher rates of infant mortality and stunting as well as lower birth weight. Van Deurzen et al (2014) found that higher household wealth inequality is associated with increased child mortality and levels of anaemia among children. Inequality is also linked to higher rates of pregnancy among adolescent girls.⁴

If people live in high inequality countries, they are more likely to experience ill health, poor nutrition and lower life expectancies. Some studies have found a correlation between poorer self-reported health and higher inequality.⁵ Within China, for example, Pei and Rodriguez (2006) found that the risk of poor health increased by 10 to 15 percent among people living in provinces with greater income inequalities. Income inequality is associated with higher levels of obesity and diabetes mortality in high income countries.⁶ There is also a strong association in rich countries between income inequality and mental illness.⁷

Mortality, resulting often from ill health, is more likely in countries with high levels of inequality. Ward and Viner (2017) found an association between high inequality and increased mortality among males and females across all age groups in 103 countries, after adjusting for mean GDP. The strongest correlation was among young women: a one unit increase in the Gini coefficient was associated with a 6.4 percent rise in the communicable disease mortality rate. Similarly, Dorling (2007) found that income inequality had the greatest influence on mortality between the ages of 15 and 29 years in OECD countries and between the ages of 25 and 39 years across 126 countries worldwide. De Vogli et al (2005) and Van Deurzen et al (2014) report that high levels of inequality are linked to lower life expectancy.

During the COVID-19 pandemic, inequality has been associated with a greater likelihood of infection.⁸ This is because people on low incomes are less able to work from home or isolate when infected, thereby infecting others.⁹ They are also more likely to be living in crowded neighbourhoods

³ Helliwell et al. (2021).

⁴ Pickett, Mookerjee et al (2005).

⁵ Pickett and Wilkinson (2009).

⁶ Pickett, Kelly et al (2005).

⁷ Pickett and Wilkinson (2009).

⁸ Chen and Krieger (2020)

⁹ Chiou and Tucker (2020).

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and housing, with lower access to basic public services and hygiene, while they are more likely to rely on public transport, meaning that their risk of infection is higher.¹⁰

The status of women is impacted by income inequality. Pickett and Wilkinson (2009) developed an index of women's status by combining women's political participation, employment and earnings and social and economic autonomy. When looking across both states in the USA and rich countries internationally, more equal countries performed significantly better on the index.

High levels of trust in government underpin successful societies and the development of nationstates.¹¹ Yet, Rothstein and Uslaner (2005) argue that, when inequality is high, trust will not develop and the benefits of trust, including policies that reduce further inequalities, will be elusive. They show that when Belgium, with a low level of inequality, is compared to South Africa, where inequality is very high, trust declines by 23 percent. Research by Pickett and Wilkinson (2009) found a similar result both globally and within the USA.

At a national level, high inequality produces less cohesive and more violent societies. While a positive correlation has been found between homicides and higher inequality, many countries experiencing social unrest are also those where inequality is high or rising, with a large proportion of the population feel left behind, in particular when access to social security is limited.¹² When tensions are high due to inequality, even a small event can result in protests and social unrest: for example, in the case of Chile – one of the world's most unequal countries – the catalyst for protests in 2019 was a rise in subway fares.¹³ High-income countries cannot escape the threat of social unrest when inequality is high: for example, a study by the Equality Trust (2013) has demonstrated the link between inequality and riots in England in 2011.

Studies in Indonesia have demonstrated the negative relationship between inequality and social cohesion. Yunma and Suryahadi (2015) found a positive correlation between inequality and the number of incidents of violent crime. Similarly, the World Bank (2016) discovered that districts with above-average levels of inequality have rates of conflict 1.6 times higher than districts with lower levels of inequality.

High inequality slows down the pace of poverty reduction.¹⁴ For example, using time series macro data in the context of Pakistan, Jamal (2006) found a high poverty elasticity with respect to inequality, proving the importance of reducing inequality to tackle poverty. In the face of various economic shocks that may undermine growth, higher inequality makes a greater proportion of the population vulnerable to poverty. The World Bank (2016) notes that increasing inequality in Indonesia has disrupted social cohesion, jeopardizing the gains in poverty reduction that were generated by economic growth. Further, high and rising inequality also makes escaping from poverty more difficult. Bourguignon (2004) has shown how, if economic growth is held constant, poverty reduction is negatively affected by increases in inequality.¹⁵ In fact, Kanbur et al (2014) have estimated that, across the 12 Asian economies that experienced rising inequality between the early 1990s and late 2000s, the increase in inequality resulted in 240 million more people – or 6.5 percent of the region's population – living under the US\$1.25 per day poverty line than would otherwise have happened.

¹⁰ Papageorge et al (2020).

¹¹ Kidd, Axelsson et al (2020).

¹² Pickett, Mookherjee et al (2005); IMF (2020); and, Massing (2020).

¹³ Massing (2020).

¹⁴ Klasen (2016); and, Ravallion (2004)

¹⁵ Bourguignon. (2004).

2 High income inequality and its impacts

It is now widely recognised – after many years of debate – that high inequality is bad for economic growth. In fact, ESCAP (2015) has argued that "…inequality could threaten the [Asia and Pacific] region's economic dynamism, sow the seeds of economic crisis, and undermine the sustainability of economic growth." Recent research by the IMF has demonstrated that income inequality has a positive effect on economic development until the Gini index reaches 27, at which point inequality has a negative impact, which becomes more severe as inequality increases.¹⁶ Dabla-Norris et al (2015) have found that, while a one percentage point increase in the income share of the top 20 percent is associated with a lower GDP growth by 0.08 percentage points in the following five years, a one percentage point increase in the income share of the bottom 20 percent leads to a 0.38 percentage point rise in economic growth.¹⁷ Further, Ostry et al (2014) found that lower levels of inequality are robustly correlated with faster and longer periods of economic growth. For example, a 10 percent reduction in income inequality was found to increase the expected length of a spell of economic growth by 50 percent.¹⁸

Therefore, tackling inequality should be a policy priority for all countries if they wish to enhance the wellbeing of their citizens, reduce poverty, build trust in government, reduce the risk of social unrest and enjoy strong economic growth. In effect, by tacking inequality countries will drive forward inclusive national development while more effectively achieving the SDGs. The following section examines levels of inequality in the Asia-Pacific region and demonstrates that tackling inequality should be a priority for many countries.

¹⁶ Grigoli (2017).

¹⁷ Dabla-Norris et al. (2015).

¹⁸ Berg and Ostry (2011).

3 Inequality across the Asia and Pacific region

High inequality is a global challenge. Nonetheless, as Figure 3-1 indicates, the Pacific region enjoys the second lowest rate globally, although the average Gini-coefficient – see Box 1-1 for an explanation – is 3.5 points higher than Europe at 36.4. The Asia region, however, is characterised by high inequality, with an average Gini coefficient of 44.7, almost in line with the Americas where inequality has long been recognised as a significant policy issue of concern. Overall, inequality in Asia and the Pacific is at a level that should be a concern to policymakers. As indicated earlier, it is also likely to have risen due to the COVID-19 crisis.



Figure 3-1: Gini coefficients across UN regions, average weighted by population size, latest available year

Source: UNU-WIDER, World Income Inequality Database (WIID) Companion dataset. Version 31 May 2021

Within the Asia and Pacific region, levels of inequality vary between sub-regions, as shown by Figure 3-2. The lowest levels of inequality are in Central Asia (33.9) followed by the Pacific (36.4). In contrast, the highest inequality is found in Southern Asia (50.5), followed by East Asia (41.5) and South-East Asia (39.1). Unfortunately, the latest data available for India is from 2012, so it may be that the current level of inequality in the South Asia region is different.

3 Inequality across the Asia and Pacific Region



Figure 3-2: Gini coefficients across UN subregions, average weighted by population size, latest available year

Source: UNU-WIDER, World Income Inequality Database (WIID) Companion dataset. Version 31 May 2021

There is significant variation in levels of inequality across countries within the Asia and Pacific region, as indicated by Figure 3-3 (although, for some countries, the results are a little out of date). The highest level of inequality is found in India with other South Asian countries not far behind.¹⁹ The lowest Gini coefficient is in Azerbaijan. In fact, only Azerbaijan has a Gini coefficient below the level at which inequality begins to hinder economic growth. Across all countries found in Figure 3-3, 40 percent have a Gini coefficient above 40, which should be regarded as a high level of inequality. In fact, China and India – the countries with the largest populations – both have Gini coefficients above 40.

¹⁹ The latest data available for India is from 2012. Therefore, it is not possible to know the current Gini coefficient for the country.





Source: UNU-WIDER, World Income Inequality Database (WIID) companion dataset. Version 31 May 2021. Notes: * indicates estimates from own analysis from recent surveys. The latest available data has been used, but, unfortunately, in some countries it is quite old and may not reflect the current context. Further, the figures do not reflect the impact of COVID-19 as the most recent data is from 2018.

However, it is likely that the true levels of income inequality within countries are underestimated, due to the wealthiest households often not appearing in household surveys. The World Bank (2016) examined this phenomenon in Indonesia and concluded that inequality must be higher than suggested by the national household surveys. Further, the analysis has only examined income inequality. The IMF (2021) has demonstrated that wealth inequality in countries is consistently higher than income inequality, since the latter does not take account of the assets held by the wealthiest members of society. There is limited information available on wealth inequality in Asia. Nonetheless, Figure 3-4 compares wealth and income inequality in China, India and the Republic of Korea, in 2012 and shows a similar pattern. For example, while the richest 10 percent of the population had 2.8 times the income of the poorest half of the population in China, they had 9.6 times the wealth; and, in India the richest 10th decile of the population had 4.3 times the income of the poorest 50 percent but 10.5 times the wealth.

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Figure 3-4: Income and wealth distribution in China, India and the Republic of Korea, 2012

Source: World Inequality Database (WID), companion dataset. Version 31 May 2021.

Across the Asia-Pacific region, levels of inequality are dynamic and changing over time. UNESCAP (2018) has shown that, between the period 1990-1994 and the period 2010-2014, the average Gini coefficient for 46 countries in the region rose from 0.33 to 0.38, at the same time as countries became richer, suggesting that the wealthiest members of society were pulling away from the rest of the population. Figure 3-5 provides a picture for countries for which there is more recent information. It shows the annual change in the Gini coefficient and, in most countries, inequality has fallen, suggesting that the growing inequality that was experienced between 1990 and 2010 is being reversed in some countries. In Thailand, for example, the Gini coefficient has fallen each year by 0.6 percent, or a total fall of 10.5 percent between 2000 and 2018. The largest fall has been in Azerbaijan, where the Gini Coefficient dropped by 2.9 percent per year, a total reduction of 49.8 percent between 2001 and 2018. In some countries, however, inequality is worsening, especially in Indonesia, Pakistan and Bangladesh. While there is no up-to-date information on India, between 1993 and 2012 the Gini coefficient rose by 13 percent and it may well have continued to rise.²⁰

²⁰ Source: PovCalnet

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Figure 3-5: Average annual change in Gini coefficient over time across Asia and the Pacific, for countries for which data is available (between 2000/05 and 2015/19)²¹

Source: UNU-WIDER, World Income Inequality Database (WIID), companion dataset. Version 31 May 2021

Figure 3-6 shows the same information but compares countries in Asia with the rest of the world. Those under the red line are countries where inequality has fallen and those above the line are where inequality has increased. Overall, the pattern in Asia is similar to other regions globally, with some countries experiencing growing inequality while, in others, it has fallen. Azerbaijan and Indonesia stand out once more as the countries at the ends of the spectrum of falling and rising inequality.

²¹ The reason some countries are missing from this graph is that up-to-date information for 2015/19 is not available.



Figure 3-6: Changes in income inequality between 2000/05 and 2015/19

Source: UNU-WIDER, World Income Inequality Database (WIID) Companion dataset. Version 31 May 2021. Notes: x-axis shows Gini index for countries in the period 2000/05, and the y-axis shows Gini index for the same countries in the period 2015/19, latest available year.

Another means of demonstrating changes in inequality over time is through growth incidence curves. These indicate the relative winners and losers across the welfare distribution in countries over time, as levels of inequality change. Figure 3-7 shows four countries where inequality has risen over the past 20 years.²² The blue line demonstrates the increase in consumption each year for each percentile of the population and can be compared to the orange line, which is the average increase. In Indonesia, the richer members of society have been pulling well ahead of the rest of society, with the poorest lagging behind the most. In Cambodia, a similar pattern can also be observed over a period of only 5 years (2014-19). In Bangladesh, the poorest members of society have fallen well behind, while the greatest growth in income has been among those on middle incomes. And, in Pakistan, although the rise in incomes has been limited across the entire population, the main beneficiaries of economic growth have been the wealthiest members of society. In three of these countries – Bangladesh, Indonesia and Pakistan – spending on tax-financed social security has increased over the periods considered, with all three focusing on programmes targeted at the poorest members of society (see Chapter 5 for further discussion on this apparent paradox).

²² Annex 1 provides growth incidence curves for 29 countries in Asia

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Figure 3-7: Growth incidence curves in four countries where inequality has been increasing: Bangladesh, Cambodia, Indonesia, and Pakistan (note the difference in scales on Y axis)

Source: UNU-WIDER, World Income Inequality Database (WIID) Companion dataset, version 31 May 2021. For Cambodia we have used our own calculations based on CSES 2014 and 2019 and have measured changes in consumption as a proxy for income. Notes: Changes in income or consumption have been annualised.

The pattern is very different in countries where inequality has been falling. Figure 3-8 shows the growth distribution curves in Azerbaijan, Georgia, the Philippines and Thailand. In each, the growth in consumption has been higher among the poorer members of society than among those at the top of the welfare distribution. In Azerbaijan and Georgia, the reductions in inequality have been very significant, with the poorest 60-70 percent of the population benefiting the most, largely due to significant expansions in their social security systems.²³ In three of the countries – Azerbaijan, Georgia and Thailand – the increase in expenditure has mainly been on universal schemes while, in the Philippines, the focus has been on programmes for the poorest members of society (see Chapter 5 for further discussion). The falls in inequality have been lower in Thailand and the Philippines, although, nonetheless, the poorest members in society in Thailand have done almost twice as well as those at the top of the welfare distribution. Further, despite the fall in inequality in each country, the richest members of society in all four countries have nonetheless increased their wealth.

²³ UNESCAP (2018).

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Figure 3-8: Growth incidence curves in four countries where inequality has been falling: Azerbaijan, Georgia, the Philippines and Thailand (note the difference in scales on Y axis)

Source: UNU-WIDER, World Income Inequality Database (WIID) Companion dataset. Version 31 May 2021 Notes: Changes in income have been annualised.

In conclusion, therefore, this chapter has shown that most countries in the Asia-Pacific region are experiencing high levels of income inequality. Further, the true level is likely to be underestimated while wealth inequality is probably significantly higher. This suggests that most countries in the region need to take policy actions to reduce inequality, so that they and their citizens do not experience the negative impacts of high inequality that were described in Chapter 2. In some countries, levels of inequality have been falling for the past 20 years, which is positive, although, in many of these, more still needs to be done. In others, there has either been little change or the situation is worsening. The following section examines the global evidence on the extent to which social security has helped countries tackle inequality.

High levels of income inequality within countries can be tackled in a range of ways, and governments have a range of mechanisms at their disposal to achieve this. The IMF (2021) has highlighted three

core tools through which governments can tackle inequality, as illustrated by Figure 4-1. It distinguishes between pre-distributive and redistributive policies. Pre-distribution incorporates the provision of public services such as health and education, as well as active labour market policies, such as minimum wage legislation. These policies encourage inclusive growth by enhancing opportunities and increasing human capital while also supporting fair labour market participation. Redistribution encompasses both taxes and transfers - in other words, investment in social security - which not only transfer wealth from the rich to most of society but, by doing so, further strengthen

Box 4-1: The right to social security in the universal declaration of human rights

Article 22: "Everyone, as a member of society, has the right to social security"

Article 25: "(1) Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control. (2) Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection

human capital and help generate economic growth. Redistribution, in effect, reduces the inequality of disposable income through taxes and transfers while enhancing opportunities for families and individuals through demand side investments.



Figure 4-1: IMF's conceptual framework for tackling inequality

Source: elaboration by authors based on IMF (2021).

Since the Second World War – and following international agreement on the Universal Declaration of Human Rights (see Box 4-1) – social security has become recognised as both a basic right and a key tool through which countries can tackle inequality and create better societies for everyone. The reduction in inequality achieved by social security is the result of both the transfers themselves, which offer households additional income, alongside the taxation that funds the transfers. As Figure 4-2 illustrates, redistribution should reduce the incomes of the wealthier members of society while increasing incomes across the majority, thereby tackling inequality. Almost all countries practise redistribution although the extent varies considerably.

Figure 4-2: Simple diagrammatic representation of redistribution, due to taxation and social security transfers



Source: elaboration by the authors.

Across high-income countries, social security has proven to be an effective tool for reducing inequality. The IMF (2017) has found that direct transfers and taxes have reduced income inequality by over a third across high income countries. According to the OECD (2012) and Causa and Hermansen (2018), on average direct transfers account for more than three quarters of the overall impact of redistributive policies on inequality in OECD countries. Direct transfers have reduced income disparities at the bottom of the distribution, while taxes reduce disparities at the top. Figure 4-3 shows the impact of social security transfers and taxation on inequality across OECD countries. The top of the blue bars indicates levels of inequality. It demonstrates that some of the world's most equal countries – including those in Scandinavia – would be very unequal countries if they did not invest in social security. However, impacts are lower in Chile, Mexico, the Republic of Korea and Turkey, which invest much less in social security, with most support going to the wealthier members of society who are more likely to have participated in social insurance schemes.





Source: OECD social expenditure database (SOCX).

As shown by Figure 4-4, within OECD countries there is a clear correlation between levels of investment in social security and reductions in inequality.²⁴ The more countries spend, the greater the fall in inequality. Nonetheless, OECD countries demonstrate there is likely to be a limit beyond which the returns to investment diminish, particularly when systems include design flaws, such as offering benefit levels that are too high to elites or incorporating categories of the population that should not be within the system (such as healthy retirees aged 40-60 years²⁵). Countries such as Sweden and Norway prove that high quality universal systems – even in ageing societies – can be established for around 12 percent of GDP. Governments should encourage people who wish to receive higher benefits than those provided by the state system, or wish to retire early, to contribute into private insurance schemes, as part of a third tier within a national social security system. However, investments in social security in the Asia-Pacific region are well behind optimum levels.

²⁴ The magnitude of redistribution is measured by the difference between Gini coefficients for market income – that is, pre-tax, pretransfer incomes – and disposable income – i.e. post-tax, post-transfer income.

²⁵ In many OECD countries, specific categories of employees – such as the military – can often be allowed to retire early, but nonetheless gain good pension benefits.



Figure 4-4: Correlation between inequality reduction and level of investment in social security in OECD countries (2017-2019)²⁶

Source: OECD Social Expenditure Database (SOCX) and OECD Data 'Income Inequality'.

As Figure 4-5 indicates, when looking globally across 120 countries, including many low- and middleincome countries – those that invest more in social protection achieve larger reductions in the level of income inequality among their citizens. Around 73 percent of the variation in income redistribution is explained by the level of public social protection spending. On average, the IMF (2017) has found that, over time, high-income countries in the Global North have achieved lower average levels of income inequality than countries in the Global South. This, to a large extent, is due to the greater levels of redistribution within their countries through social security and taxation which have, 'in the long term, reduced income inequality by more than one-third in advanced economies.'²⁷

²⁶ On the X axis, the market-income inequality refers to the Gini coefficient if there was no social security or taxes to fund social security, while the net-income inequality refers to the actual Gini coefficient in those countries, taking into account social security and taxes.
²⁷ IMF (2017) in IMF (2021).





Source: Standardized World Income Inequality Database (2020) and ILO World Social Protection Database (2021). Some caution should be taken with the social protection expenditure figures, which likely include areas of spending that are outside the core social security sector.

It is often believed that the best means of tackling inequality is by targeting social security transfers at the poorest members of society. Indeed, while this sounds intuitive it is, in fact, an incorrect belief. In reality, as demonstrated by the evidence, higher reductions in inequality are achieved by countries that invest in universal social security. Within OECD countries, for example, high impacts on inequality have been achieved by those countries with a greater commitment to universal transfers: the best examples are countries in Scandinavia, and Sweden's Ministry of Finance (2017) has explained how the Nordic model of social security is predicated on universal transfers.

The higher impact of universal transfers on inequality has been explained by Korpi & Palme (1998) as a 'paradox of redistribution.' Using data from the Luxembourg Income Study of 11 OECD countries, they devised an 'index of the degree of targeting transfers' and found that this was negatively related to 'income redistribution,' measured as the reduction in the Gini coefficient from market income to disposable income. In other words, countries with more universal social security systems achieved greater redistribution. More specifically, income inequality was found to be higher in countries with limited social expenditures and more targeted schemes (e.g. United States, Canada, Australia and Switzerland) as opposed to countries with large expenditures and more universal benefits (e.g. Scandinavian countries, Germany and France).²⁹ More recently, Jacques and Noël (2018) conducted a similar study, developing a universality index comprising the percentage of social

²⁸ On the X axis, the market-income inequality refers to the Gini coefficient if there was no social security or taxes to fund social security, while the net-income inequality refers to the actual Gini coefficient in those countries, taking into account social security and taxes.
²⁹ Korpi & Palme, 1998 in Kato (2003).

benefits that are means-tested and the proportion of social expenditure that is private. Using time series data for 20 OECD countries between 2000 and 2011, they found that countries with fewer universal programmes and less redistributive budgets are less effective at redistributing income and tackling inequality, as measured by the Gini coefficient. The IMF (2021) also highlight that coverage and adequacy determine the effectiveness of social transfers for reducing poverty and inequality and that this is particularly important among low- and middle-income countries across the global south with a high degree of informality.

The greater impacts of universal transfers on inequality are, to a large extent, the result of their higher budgets, when compared to poverty-targeted schemes. Universal social security systems – at least in democratic contexts – consistently have higher budgets than poverty-targeted programmes. Political economy theory explains that this is due to their greater popularity which derives from their broad coverage across society.³⁰ Taxpayers are more likely to support schemes when they also benefit from them. In contrast, poverty-targeted schemes are less popular since they reach only a small proportion of the population and generally exclude those citizens who, through their taxes, are the main funders of the schemes. Taxpayers, therefore, tend to be reluctant for their taxes to be used on programmes from which they are excluded. As Fiszbein & Schady (2009) of the World Bank write: *"Transfer schemes narrowly targeted at the poor would tend to have limited support because a small share of the population benefit, whereas the costs are dispersed across all tax-payers."*

The higher budgets of universal schemes mean that the overall level of taxation required to fund them is higher than the taxation required to fund poverty-targeted programmes. Further, even if taxation rates are equal across everyone in society, in absolute terms the amount of tax paid by the richer members of society is higher, and this is redistributed across the rest of society. The difference between universal and poverty-targeted schemes can be illustrated by a simple thought experiment using an imaginary country of five citizens.

Figure 4-6 shows the incomes of the five citizens. The total income of all citizens is US\$10,000: the richest citizen has an income of US\$7,000 while the poorest has an income of only US\$200.



Figure 4-6: Distribution of income across the five citizens in the imaginary country

Source: Authors' elaboration.

³⁰ See Kidd (2015) for a more in-depth explanation.

In the thought experiment, two schemes are put in place: one is a poverty-targeted programme that gives everything to the poorest citizen and costs 0.5 percent of GDP (or, in this case, of the total income of the five citizens); the other is universal and requires an investment of 5 percent of GDP, which is redistributed to all five citizens on an equal basis. Both schemes are funded through a flat income tax on all citizens, equivalent to 0.5 percent of income under the poverty-targeted option and 5 percent of income under the universal scenario. The results of the redistribution are shown in Figure 4-7. While under the poverty-targeted scheme, the poorest member of society benefits the most, under the universal scheme they do much better. In contrast, the richest member of society's income falls the most under the universal scheme. Consequently, it is the universal scheme that generates the highest reductions in inequality.



Figure 4-7: Net income gains and losses under the poverty-targeted and universal schemes

Source: Authors' elaboration.

5 Impacts of current social security systems on inequality: evidence from the Asia-Pacific region

Across most countries in the Asia-Pacific region, social security systems are less developed than in OECD countries. Most countries have not yet established modern universal social security systems but have bifurcated systems in which public service pensions and social insurance schemes are offered to those in the formal economy – who tend to be over-represented among the better-off members of society – while small social assistance programmes are provided to the poorest members of society. As Figure 5-1 illustrates, this results in the exclusion of a large proportion of the population from the social security system, often referred to as the 'missing middle.' Yet, this group tends to be working in the informal economy and, as indicated by Figure 5-1, are living on low and insecure incomes. Guy Standing (2011) has called this group the 'precariat' which aptly describes their situation and highlights the need for them to access social security, to build their resilience and reduce their insecurity.



Figure 5-1: Social security model found in many countries of the Asia-Pacific region

Source: Created by Anh Tran of Development Pathways.

In contrast, modern social security systems offer universal coverage to citizens to address the risks and challenges they face across the lifecycle, in line with the provisions set out in the Universal Declaration of Human Rights (see Figure 5-2). In most countries with modern, comprehensive systems, the largest schemes tend to be child, old age and disability benefits, but good systems also establish a range of other measures for those of working age, such as unemployment, maternity/paternity and sickness benefits.



Figure 5-2: Typical benefits offered by a modern, lifecycle social security system

Source: Created by Anh Tran of Development Pathways.

In addition to the more established systems in the high-income countries of Australia, Japan and New Zealand, some low- and middle-income countries in Asia are beginning to build more modern, universal, lifecycle systems. The most common universal, lifecycle schemes found in the Asia-Pacific region are old age pensions, but there are also a few countries that have established universal disability benefits. Mongolia is the only country in the region that has implemented a universal child benefit, although it was obliged by some international financial institutions, in 2018, to target it at 80 percent of the population. The overall level of investment by 23 Asia-Pacific countries in taxfinanced social security schemes, disaggregated by lifecycle category, is set out in Figure 5-3.





Source: Administrative data shared by the Government of Sri Lanka for 2019/2020. Brunei Times (2014), available at: https://btarchive.org/news/national/2014/11/10/govt-may-spend-80m-old-age-pension-year; Department of Social Welfare, Ministry of Social Welfare, Relief and Resettlement (Myanmar) (2019); Development Pathways Disability Benefit Database, available at: http://www.developmentpathways.co.uk/publications/#disability-database; Duggal (2013); Kidd and Damerau (2016); Kidd et al. (2016); McClanahan (2021); Narayanan (2019); National Statistics Office Mongolia, available at: https://www.en.nso.mn/content/248. NSPA (2019); Paudel (2016); PensionWatch, available at: https://www.pension-watch.net/country-fact-file/philippines; Calculations based on information from Tran (2021); UNICEF (2018); Wapling & Schjoedt (2017); Zhang (2012).

However, a focus only on tax-financed schemes underestimates the level of spending on multi-tiered social security in some countries. While, as indicated above, many Asia-Pacific countries have only offered social insurance benefits to a small proportion of the population, there is a small number of countries that have managed to deliver universal – or almost universal – coverage to specific categories of the population via a combination of social insurance and tax-financed schemes. Mongolia is the best example and its universal coverage of older people and persons with disabilities is mainly financed via social insurance (although it is likely subsidised from general taxation). In total, Mongolia invests seven percent of GDP in social security through a multi-tiered system, including its child benefit. Uzbekistan is another high spender, offering almost universal coverage of persons with disabilities and older persons via a combination of funding from social insurance and general government revenues; its overall level of investment in social security is 9.7 percent of GDP.³¹ In both countries, spending on social security is similar to that of high-income countries.

³¹ Kidd et al (2019).

While there is good evidence from OECD countries on how social security has addressed inequality, there is less evidence from the Asia-Pacific region. The next sections, therefore, investigate this further, first examining the region as a whole before moving on to individual countries.

5.1 Evidence on the impacts of social security on inequality across the Asia-Pacific region

A study by Wagle (2016) has examined investments in social security across 33 Asian countries. Using multivariate analysis, he found that social security expenditures have had a significant, negative impact on inequality. He estimated that a one percent increase in investment in social security (including expenditures on health) reduced the Gini coefficient by roughly 0.6 percent. However, other researchers have arrived at the opposite conclusion. Mello and Tiongson (2006) undertook a cross-country analysis and concluded that government spending on social security enhances inequality. Similarly, Claus et al (2013) found that government social security spending also resulted in an increase in income inequality in Asia.³² Their estimates suggested that a one percentage point increase in social security expenditure triggered an increase of 0.49 percent in the Gini coefficient across Asian countries. Therefore, the effect of social security on inequality across the Asia-Pacific region appears to be contested, although the researchers have used different methodologies and time periods while including different countries in their analysis.³³

Analysis for this paper has replicated Wagle's methodology using information on income inequality from the World Income Inequality Database and the figures on social protection spending provided by the IMF and ADB. Regression results show a statistically significant negative relationship between social protection spending and inequality: in effect, a one percentage point increase in social protection expenditure results in a 0.2 percent decrease in the Gini coefficient.³⁴ However, when average differences across countries are ruled out, this effect seems larger: a one percentage point increase in social protection expenditure leads to a 0.6 percent decrease in inequality. This result is in line with Wagle's finding.³⁵

Overall, therefore, current spending on social security across the Asia-Pacific region appears likely to have impacted on income inequality, although the overall effect may well be limited and even contested. This should not be surprising given the prevailing social security model in many countries. In those countries where social security mainly benefits the better-off in the formal economy, it may well exacerbate inequality. Indeed, across many countries, spending on public service pensions and social insurance benefits for a minority of the population employed in the formal economy significantly exceeds spending on social security for the mass of the population working in the informal and subsistence economies. In effect, access to social security in many Asia-Pacific countries is highly unequal and, as a result, it is no surprise that it may well generate higher levels of inequality. Therefore, the effectiveness of social security in tackling inequality is dependent on the

³² Claus et al (2013) noted: "Government expenditure is generally found to be a more effective tool for redistributing income. In Asia, government spending on social protection has a distinctive differential distributive impact. Social protection spending appears to increase income inequality in Asia, whereas it reduces it in the rest of the world."

³³ Different countries and time periods were used for the analysis by the researchers, which may contribute to the differences in findings. Mello and Tiongson's cross-country analysis used a sample running from 27 to 56 countries depending on the availability of data; Martinez-Vazquez, and Vulovic (2012) used data from 150 economies between 1970 and 2009, of which 22 are from Asia. Wagle (2016) used data on 33 Asian countries covering 1990–2012. There are also small differences in the methodologies: Claus et al. (2012) included lagged inequality to capture the persistence of income inequality over time whereas the rest used current year Gini coefficients. There were also differences in the set of control variables employed.

 $^{^{\}rm 34}$ These results capture the impact over the entire timeframe analysed.

 $^{^{\}rm 35}$ See Annexes 2 and 3 for more results and details on the methodology used.

design of schemes and the overall system, which is explored further in Section 5.2. If social security is to meaningfully contribute to reducing inequality in the Asia-Pacific region, an alternative approach is required. This is discussed further in Chapter 6.

5.2 Evidence on the impacts of social security on inequality within individual countries in the Asia-Pacific region

When examining individual countries and schemes within the Asia-Pacific region, it is evident that social security has reduced inequality. This section examines 13 countries in the Asia-Pacific region to estimate the impacts of social security – including the taxation required to fund it – on inequality. Analysis has been undertaken of national household survey datasets that include information on social security benefits. In most cases, the information on the value of transfers is either that reported by households or the value of the relevant transfer at the time of the survey. Annex 3 describes the methodology used to undertake the simulations, including how the tax generated to pay for the benefits has been allocated.

Figure 5-4 outlines the reduction in national Gini coefficients that are generated by the social security systems currently in place within the 13 countries. For most, only the tax-financed system has been analysed, due to limitations of the available data. However, in Uzbekistan and Mongolia, where social insurance schemes offer almost universal coverage for some categories of the population as part of multi-tiered social security systems, the entire system has been assessed. The analysis examines the total change in the Gini coefficient in a hypothetical situation of no social security schemes, accounting for both the reduction in income due to the removal of the transfers and the increase in income resulting from lower taxation. In the three countries that have large social security systems, the impacts are significant. The reduction in the Gini coefficient due to their investments in social security is 20.7 percent in Mongolia, 16.7 percent in Georgia and 15.1 percent in Uzbekistan. However, in those that spend very little on social security – in other words Bangladesh, India, Indonesia, Pakistan, the Philippines, and Viet Nam – the reduction in inequality is minimal.



Figure 5-4: Simulated impacts on inequality of social security systems across Asia, comparing situations of with and without transfers and taxes in the year of the surveys

Source: Own analysis of Bangladesh's HIES 2016, Georgia's IHS 2018, India's IHDS-II 2011-2012, Indonesia's SUSENAS 2017, Maldives' HIES 2016, Mongolia's HSES 2018, Nepal's AHS 2014-2015, Pakistan's HIICS 2015-2016, Philippines' APIS 2014, Sri Lanka's HIES 2016, Thailand's SES 2018, Uzbekistan's L2CU 2018, Vietnam's VHLSS 2016.

It is also evident that, in those countries with elements of a universal, lifecycle social security system – which are in orange – the impacts on inequality are higher. In most of these countries, the main universal benefits are old age pensions and disability benefits, although, as indicated earlier, Mongolia also has an almost universal child benefit. Within the South Asia region, Nepal, which has a universal old age pension, the impacts of social security on inequality are much higher than in the richer countries of Bangladesh, India, Pakistan and Sri Lanka which rely on poverty-targeted social assistance.³⁶ The one country with the initial trappings of a universal system but lower impacts is Viet Nam, which is the result of a very high age of eligibility for its tax-financed old age pension, at 80 years, which means that spending is limited.³⁷

To a large extent, the effect on inequality is related to the amount invested in social security. For the 13 countries analysed, Figure 5-5 compares the level of investment in social security with the percentage reduction in the Gini coefficient resulting from this investment. There is a very strong correlation between a higher fall in inequality and higher investment in social security. Further, as discussed above, the countries with the higher investment have all begun to build universal social security systems while those with low investments are still stuck within an old-fashioned social assistance paradigm.

³⁶ In Nepal, the impacts are underestimated because it was not possible to identify, in the data set, recipients of the universal Widows' and Disability Allowances.

³⁷ In some richer provinces in Viet Nam, the age of eligibility for the pension is lower, at either 75 years or 70 years.



Figure 5-5: Comparison between levels of funding of the social security system and the reduction in inequality

Source: Own analysis of national household surveys. See Figure 5-5 for survey names.

Another means of examining the impact on inequality is to examine who has, financially, been the winners and losers when both the transfers and the taxes to pay for the transfers are accounted for. Figure 5-6 looks at the tax-financed schemes in four countries: two (Georgia and Nepal) are moving towards universal social security while the other two (Pakistan and the Philippines) still employ poverty-targeted social assistance. It assesses the average relative increase or reduction in household consumption across the welfare distribution.³⁸ Noting the different scale on the Y axis for Georgia, it shows that, in those countries with universal benefits, the poorest members of society have received much more support than in the countries practising poverty targeting. Similarly, the richer members of society have contributed much more tax and, as a result, are larger net losers in countries with universal schemes compared to those practising poverty targeting. In effect, in countries with more universal schemes, the rich have shown greater solidarity with the rest of society than they have done where poverty-targeting dominates. When comparing Nepal and Georgia, the impacts are much larger in the latter because it invests much more in social security. Similar results to Georgia would be found in other countries that are high spenders on universal social security, such as Uzbekistan and Mongolia.

³⁸ Implicitly, across each percentile of the population, there will be many households who have not benefited from the schemes. Nonetheless, the analysis looks at the average impact for each decile, to build a national picture.



Figure 5-6: impacts on average household consumption for each decile of the population from the social security benefits (both transfers and taxes), across the welfare distribution (note the difference in scales)³⁹

Source: Own analysis of national household surveys. See Figure 5-5 for survey names.

It is also possible to examine the impacts of specific types of social security schemes on inequality, comparing both universal and poverty-targeted approaches. Figure 5-7 compares eight tax-financed old age pension schemes in the Asia-Pacific region. The universal schemes have much greater impacts on inequality due to their higher coverage and relative transfer values and, in the Philippines, there was even a small increase in inequality resulting from its poverty-targeted pension. The reductions in inequality are particularly large in Georgia, an ageing country where around half of all households include a pensioner. However, the comparison across the five countries of South Asia – Bangladesh, India, the Maldives, Nepal and Sri Lanka – also demonstrates

³⁹ The Y axis scale for the Georgia graph is very different to the Nepal, Pakistan and Philippines scales, due to the much higher level of spending on social security in Georgia.

clearly the much greater impacts of the universal pensions. Of note is the much larger impact in Nepal where, despite being the poorest country in the region, it currently offers citizens a much higher minimum value benefit, at 32 percent of GDP per capita. In contrast, Bangladesh only offers four percent of GDP per capita, India two percent and Sri Lanka three percent. While Nepal's impact is reduced because it has a high age of eligibility – at 70 years – it could be increased if the age of eligibility were set at 65 years, since many more people would be reached.⁴⁰





Source: Own analysis of national household surveys. See Figure 5-5 for survey names.

Similarly, when child benefits are examined, the impacts on inequality are much higher with universal schemes. Figure 5-8 compares Mongolia's almost universal Child Money Programme (CMP) with the poverty-targeted benefits for children found in Indonesia and the Philippines. The impacts on inequality in Mongolia are 19 times greater than in the Philippines and 8.6 times larger than in Indonesia. In fact, if Mongolia had maintained, in 2018, the universality of its child benefit as well as the 2012 transfer value, when measured as a percentage of GDP per capita, it would have brought about a much larger reduction in inequality. Unfortunately, due to pressures from international financial institutions, the Government of Mongolia has appeared to be constrained in its confidence to maintain the real value of the child benefit, since 2012, which has reduced the effectiveness of the scheme. However, during the COVID-19 crisis, the Government of Mongolia has been emboldened and increased the value of the transfer by five times, as a means of supporting economic recovery and protecting families, which will now mean an even larger impact on inequality.

⁴⁰ The assessment, however, underestimates the impact of the pension in Nepal since it is also given to Dalits aged 60 years and over while there is a universal benefit for single women between 60 and 69 years. These benefits were not modelled due to limitations with the dataset in Nepal.



Figure 5-8: Comparison of the impacts on inequality from Mongolia's Child Money programme, Indonesia's *Program Keluarga Harapan* and the Philippines' *Pantawid* programmes

Source: Own calculations based on Mongolia's HSES 2018, Indonesia's SUSENAS 2017 and Philippines' APIS 2014.

A final comparison can be made between universal and targeted approaches by examining schemes within a particular country. Georgia is a good example given that it has a universal old age pension, a universal disability benefit and, when measured in terms of its budget as a percentage of GDP, one of the largest poverty-targeted schemes in the Global South.⁴¹ Nonetheless, as Figure 5-9 demonstrates, it is the universal schemes that are responsible for around 80 percent of the total reduction in inequality caused by the social security system.⁴² The impact of the Targeted Assistance Scheme (TSA), despite being targeted at the poorest members of society, is much more limited. This is not surprising given that the old age pension reaches 50.6 percent of households while the TSA only benefits 10.5 percent.⁴³

⁴¹ Georgia also has a targeted child benefit, but the programme could not be identified in the dataset that was used for the analysis.

⁴² This is an estimate, since it is not possible to completely disentangle the effects between different schemes.

⁴³ The coverage of the schemes has been estimated from the Georgia HIES of 2018.





Source: Own analysis of Georgia IHS (2018)

The higher budgets and transfer values of the universal schemes are evidence of the greater popularity of universal benefits and the translation of this popularity into more effective schemes. As explained earlier, governments – especially where democracy is stronger – are more willing to invest in universal schemes and will gain greater rewards for doing so. However, in more authoritarian regimes, where governments do not depend on elections for their legitimacy, examples can be found of universal schemes with lower budgets.

The evidence, therefore, indicates that, when individual countries and schemes are examined across Asia and the Pacific, there is good evidence of social security reducing inequality, as measured by the Gini coefficient. Unfortunately, no studies have been undertaken yet of how the lower inequality resulting from social security has generated broader, multiplier impacts – such as those described in Chapter 2 – in the Asia-Pacific region. Yet, this does not mean that these additional benefits have not happened. Indeed, globally, there is strong evidence of positive impacts on households, societies and national economies resulting from the provision of social security transfers, including evidence from the Asia-Pacific region.⁴⁵ Therefore, the additional benefits resulting from lower inequality are likely to be present, if not yet quantifiable.

⁴⁴ The first three scenarios in the graph examine the schemes individually and remove each one separately from the welfare variable, while in the final scenario, all schemes are removed together from the welfare variable, providing a combined impact.
⁴⁵ See, for example, Kidd (2014), Bastagli et al (2016; 2018), and ITUC (2021).

Given the harm caused by inequality to the wellbeing of individuals and nations – as highlighted in Chapter 2 – there is a strong case for countries in the Asia-Pacific region to increase their investments in social security, alongside other measures to tackle inequality such as greater investment in other universal public services and progressive labour market policies. However, for many countries, this will require a fundamental shift away from the prevailing bifurcated social security system based on social assistance for the poor and social insurance for those in the formal economy, which results in a large 'missing middle.' Instead, they should move towards building the type of modern, multi-tiered social security systems that are found in high-income countries, as indicated by Figure 6-1. For some countries, this would mean continuing the shift that they have already begun to make having already introduced some universal coverage lifecycle benefits. Only by making this shift in paradigm towards universal schemes could governments build the popular support for increasing their spending on social security, especially through general taxation. No longer would there be a 'missing middle,' since social security would be available to all as a human right, although, of course, there would still be a need for small assistance schemes to offer additional support to the poorest members of society. But, it would only be a small fraction of the overall support provided, which should be dominated by universal benefits.



Figure 6-1: Conceptualisation of a move from a social assistance bifurcated system to a rightsbased social security model

Source: Created by Anh Tran of Development Pathways.

This section, therefore, examines the likely impacts on inequality resulting from an expansion of social security. Given the global evidence on the limited impacts of poverty-targeted schemes on

inequality, due to their low levels of funding, the analysis focuses on universal, tax-financed social security systems.⁴⁶ It also focuses on the types of schemes that generate the highest levels of spending in countries with more comprehensive and effective social security systems: child, old age and disability benefits. Since the global evidence indicates that the higher the level of investment, the greater the reduction in inequality, for comparison, the analysis examines three scenarios: investments of one, two and three percent of GDP. In each of the scenarios, a basic package of universal, lifecycle schemes is examined:

- A child benefit, for all children aged 0-17 years;
- A **disability benefit**, for all children and adults with a disability up to the age of 59 years; and,
- An old age pension, for everyone aged 60 years and above.

The scenarios are tested in four Asian countries: Bangladesh, Indonesia, Pakistan and Sri Lanka. The transfer values for each of the scenarios – both in dollars and percentage of GDP per capita – are set out in Table 6-1. For simplicity, only the transfer value is varied, with the coverage and age groups remaining constant. Of course, countries could choose to expand their systems in many other ways, including commencing with more restricted age groups for the child and old age pensions, so that higher transfer values could be provided.

Table 6-1: Proposed monthly transfer values under different spending budgets for the universal lifecycle options in Bangladesh, Indonesia, Pakistan and Sri Lanka

	Transfer for disability and old age pensions (US\$)	Transfer for child benefit (US\$)	Transfer for disability and old age pensions (% of GDP per capita)	Transfer for child benefit (% of GDP per capita)		
Option 1: 1% of GDP						
Bangladesh	10	3	5.2%	1.7%		
Indonesia	17	6	4.5%	1.5%		
Pakistan	6	2	4.5%	1.5%		
Sri Lanka	13	4	3.8%	1.2%		
Option 2: 2% of GDP	1					
Bangladesh	20	7	10.4%	3.5%		
Indonesia	34	11	9.1%	3.0%		
Pakistan	11	4	9.0%	3.0%		
Sri Lanka	25	8	7.5%	2.5%		
Option 3: 3% of GDP						
Bangladesh	30	10	15.6%	5.2%		
Indonesia	52	17	13.6%	4.5%		
Pakistan	17	6	13.5%	4.5%		
Sri Lanka	38	13	11.3%	3.8%		

⁴⁶ The methodology used to undertake the analysis and the assumptions employed are described in Annex 3.

The coverage of the proposed lifecycle systems would be very high: they would reach 94 percent of households in Bangladesh, 90 percent in Indonesia, 97 percent in Pakistan and 92 percent in Sri Lanka. Their coverage across the welfare distribution is shown in Figure 6-2: in each country, almost everyone living in poverty would be reached. The high coverage would mean that the lifecycle systems are likely to be very popular, which should mean that governments will be more likely to invest in them, since they could enjoy the political rewards.





Source: Own analysis of Bangladesh's HIES 2016, Indonesia's SUSENAS 2017, Pakistan's HIICS 2015-2016, Sri Lanka's HIES 2016.

The potential impacts on inequality from the three lifecycle scenarios are high, as shown by Figure 6-3. As with the assessment of the impacts of current schemes in Chapter 5, the simulations account for both the impacts of the transfers themselves as well as the increase in tax that would be required to pay for them. The investment of one percent of GDP would bring about a reduction in the Gini coefficient of between 4.9 and 7 percent. With an investment of 2 percent, the impacts would be slightly less than double those of 1 percent of GDP, at between 9.8 and 13.6 percent of GDP. The impacts continue to increase as investment grows and, at 3 percent of GDP, the impacts are between 14.5 and 19 percent.



Figure 6-3: Simulated impacts on inequality

Source: Own analysis of Bangladesh's HIES 2016, Indonesia's SUSENAS 2017, Pakistan's HIICS 2015-2016, Sri Lanka's HIES 2016.

As discussed in Chapter 5, there are always winners and losers from universal social security once tax is taken into account. It is a misconception to believe that the 'rich' benefit financially from universal social security since, if tax is progressive, or even neutral, they will be the main funders of the schemes. In Bangladesh 62 percent of the population would enjoy an increase in consumption, so would be winners, while 38 percent would experience a fall. Similarly, the proportion of winners in Indonesia would be 62 percent, 64 percent in Pakistan and 70 percent in Sri Lanka. Figure 6-4 shows the changes in per capita consumption across the welfare distribution of all individuals in each country. The biggest winners from the universal benefits would be the poorest members of society. For example, in Indonesia, with an investment of 3 percent of GDP in universal social security, the poorest decile of the population would enjoy an increase in per capita consumption of 55 percent, while among the poorest decile in Pakistan the increase would be 24 percent. In contrast, the reduction in the per capita consumption of the richest decile of the population would be only 13 percent in Indonesia and 8 percent in Pakistan.



Figure 6-4: Simulated growth incidence curves resulting from the investments in universal, lifecycle social security systems of one, two and three percent of GDP

Source: Own analysis of Bangladesh's HIES 2016, Indonesia's SUSENAS 2017, Pakistan's HIICS 2015-2016, Sri Lanka's HIES 2016.

When the taxation to pay for social security schemes is accounted for, universal benefits begin to resemble an efficient form of poverty targeting. In contrast to the common perception that universal schemes 'benefit' the better-off, as Figure 6-4 demonstrates, they are, as indicated above, net losers given that the better-off members of society are likely to have made the largest contributions to the financing of the universal schemes, at least on average. Yet, as indicated earlier, given that the wealthier members of society receive the benefits themselves, they are more likely to support them and accept paying tax to fund them. They will also benefit in many other ways, in particular by living

in a more prosperous, peaceful and cohesive society. In fact, if, by investing in social security to tackle inequality, countries can strengthen economic growth and increase the prosperity of all citizens, the main taxpayers are likely, in the long run, to end up with higher incomes, despite paying higher taxes.

If countries in the Asia-Pacific region are to tackle inequality through social security, it will be necessary to find the required funding that would enable countries to finance the expansion in their systems. Yet, a common refrain, whenever proposals to increase investments in social security are made, is that 'there is no fiscal space.' This is unsurprising given that, over the past four decades, global policy debate has been dominated by neoliberalism and its championing of low taxes and a small state. This has had major consequences for countries globally with government revenues remaining low in many countries. Further, the richer members of society globally are paying lower taxes, with the IMF (2021) noting how global tax policy has become less and less progressive since the 1980s. Figure 7-1 demonstrates the scale of the challenge facing countries in the Asia-Pacific region. Most have government revenues that are below 30 percent of GDP while 40 percent of countries generate revenues of 20 percent of GDP or below. It is challenging to build a social security system that can effectively tackle inequality with such limited revenues.



Figure 7-1: Government revenues as a proportion of GDP across the Asia-Pacific region

Source: IMF World Revenue Longitudinal Data (WoRLD).

The main means for governments to generate additional revenues will be from strengthening national social contracts. If citizens believe that their taxes are being used properly, they are more likely to support higher taxes. However, this requires governments to build trust by providing good quality public services to their citizens. Sweden's Ministry of Finance (2017) argues that trust in government is built through the provision of universal public services, while poverty-targeted programmes can undermine trust, especially because the quality of their delivery is often poor. In fact, governments in the Asia-Pacific region can begin to build trust by establishing universal social

security schemes that deliver cash to citizens on a regular and predictable basis, each month. By receiving this cash, citizens are likely to appreciate the value of paying taxes, as they will see that they receive something in return. In fact, a number of studies have found that more trust in governments leads to a higher demand for more redistribution.⁴⁷ Of course, more would need to be done to build trust than only providing universal benefits – such as tackling corruption and ensuring positive interactions of citizens with state institutions – but universal benefits are likely to be a necessary pre-condition for greater trust and a strong social contract.

In effect, by investing in universal social security – and other universal public services – governments in the Asia-Pacific region could begin to build a virtuous circle of greater trust, a stronger social contract, higher revenues and, therefore, further investment in good quality, universal public services.⁴⁸ Many high income countries changed their social and economic models following the Second World War and, by building trust through the universal provision of services, generated much higher government revenues. To a large extent, this was one of the main factors contributing to the fall in inequality across these countries.





Source: Kidd, Axelsson et al (2020).

Nonetheless, to begin this virtuous circle, countries will need to need to find some fiscal space that will enable them to fund the initial expansion of their social security systems. This is particularly challenging in the context of the COVID-19 crisis, with government revenues falling due to the economic collapse that all countries in the Asia-Pacific region have experienced. Nonetheless, it is

⁴⁷ Yamamura (2014); Kuziemko et al (2015); and, Stantcheva (2020).

⁴⁸ See Kidd, Axelsson et al (2020) for a more detailed explanation.

essential that fiscal space is found for increased investment in social security, not only to tackle inequality, but to support families and boost economic growth.

The IMF (2021) has outlined a range of options for countries to increase taxation following the COVID-19 crisis, as summarised in Figure 7-3. The options will be different according to the specific circumstances of the country. However, a basic principle should be increased solidarity across society, with the wealthier members of society – who can afford to pay more tax – taking on the greatest responsibility. Indeed, many of the richest people globally have seen their wealth increase dramatically during the COVID-19 pandemic, as they have taken advantage of the opportunities that the crisis has provided. For example, there has also been a 5.6 million rise in the number of millionaires globally during the crisis.⁴⁹ In fact, in Asia Pacific, between March and December 2020, the region's billionaires saw their wealth grow by US\$1.46 trillion, which was enough to provide a salary of US\$10,000 to the 147 million people who lost full-time jobs during the same period.⁵⁰

Figure 7-3: Options for reforming tax to raise additional revenue, which could be used to invest in social security



Source: Adapted by Daisy Sibun of Development Pathways from IMF (2021)

A survey by the IMF (2021) has shown strong support for the more progressive taxation globally. One option is for governments in the Asia-Pacific region to increase income tax rates on the wealthier members of society. These will be the individuals who can still afford to pay higher taxes, due to their higher incomes. In many countries in the region, income tax rates on the wealthiest members of society are relatively low. Figure 7-4 shows the highest income tax rates across most countries in the Asia-Pacific region. While rates reach 45 percent in some of the wealthier countries,

⁴⁹ Credit Suisse (2021).

⁵⁰ Oxfam (2022).

in the majority they are below 35 percent, and much less in some. Therefore, across most countries, there is room to increase these rates, while ensuring that they are only levied on those who can afford to pay them. More progressive taxes will help tackle inequality, especially if a portion of the funds raised is invested in universal social security schemes.



Figure 7-4: The highest rates of income tax across the Asia-Pacific region

Source: KPMG (2021); PWC (2021); Tax Fitness (2021) and various national sources

However, the IMF (2021) also suggests that countries should consider implementing a wealth tax, but only on those regarded as rich and who can afford to pay it. Given that the very rich store most of their wealth in assets or overseas, income taxes are an inadequate tool for taxing them. Wealth taxes could be levied on an annual basis, as part of a broader set of solidarity measures of the rich with the rest of society. In fact, in a study using wealth data from 21 advanced and three emerging economies the IMF (2021) has found that a recurrent one percent tax on the wealth of the richest one percent of the population could reduce wealth inequality and increase government revenues by up to 0.4 percent to 0.6 percent of GDP. Oxfam (2022) have calculated that an annual wealth tax on Asia Pacific's multi-millionaires and billionaires of between 2 and 5 percent could US\$776.5 billion per year.⁵¹ Norway is one of the few countries that implements a recurrent wealth tax, and a study has found that income inequality, as measured by the Gini coefficient, would have been one point higher without it.⁵² In addition, governments should ensure that they also tax income from capital, such as through taxes on interest, dividends and capital gains. Such taxes would be progressive since income from capital is skewed toward the rich.⁵³

However, countries should examine a range of further options for generating higher government revenues to fund expansions in their social security systems. This could include an expansion of sin taxes on alcohol, tobacco and gambling and green taxes on fossil fuels. Some countries could consider modern monetary theory and print money in their own currency. Proponents of modern monetary theory argue that inflation is only a risk when there is full employment and, therefore, it would be an option to support economic recovery from COVID-19.⁵⁴ The international community should also consider further measures to reduce the debt burden on poorer countries in the region while there needs to be greater international cooperation to reduce illicit financial flows out of countries. Further, tax collection needs to be enforced and more people need to be brought into national tax systems. For example, in Malaysia, according to government reports, only about 21 percent of registered companies and 15 percent of employees are subject to income tax.⁵⁵

In fact, a major failing in many countries of the Global South is that it has been implicitly accepted that the majority of working age citizens will never be able to pay income tax since they work in the informal economy. Yet, in a functioning nation-state, every citizen of working age should be expected to declare their incomes so that they can be taxed, if eligible. It is at the core of the social contract: citizens have the right to access public services, but they also have the responsibility to pay their taxes. They can only do this if they declare their incomes to the state. High-income countries began this process many years ago when a high proportion of their labour force was also in the informal economy.

Governments in the Asia-Pacific region could use the expansion of the social security system to their advantage by encouraging more people into the tax system and, in effect, into the formal economy. For example, they could institute a Universal Child Benefit (UCB) but only pay it to those who have made an annual income declaration. In practical terms, families could make an income declaration at the same time as applying for the UCB (which, in effect, is what happens whenever a family applies for the child benefit in South Africa). This could create a powerful incentive for families to declare their incomes, especially if the value of the UCB is higher than the tax paid. So as not to create a

⁵¹ Oxfam (2022).

⁵² IMF (2021).

⁵³ IMF (2021).

⁵⁴ https://www.theguardian.com/business/2019/mar/17/as-recession-looms-could-mmt-be-the-unorthodox-solution-modern-monetarytheory

⁵⁵ Surendran (2021).

disincentive initially, the governments could set a minimum income below which people will pay no income tax. While this may lead to a small loss of revenue, it would probably be more than compensated by higher earners coming into the tax system each year. It would be necessary to also put in place appropriate sticks alongside the social security carrots, such as fines for those who do not make the income declaration. In the early years, these more coercive measures could be targeted at the higher earners in the informal economy (in other words, those who are likely to pay taxes that are larger than the benefits they receive), while adopting a relaxed attitude to most of the population. People would be asked to make an income declaration each year and, on doing so, they would continue to receive the UCB.

Countries in the Asia-Pacific region will be more effective in generating higher tax revenues if there is a strong international consensus to help tackle illicit financial flows (IFFs) from countries, in line with target 16.4 of the Sustainable Development Goals (SDGs). IFFs are significant: for example, Spanjers and Salomon (2017) have estimated the IFFs from low-and middle-income countries in 2014 at between \$620 billion and \$970 billion. Similarly, tackling the challenges posed by tax havens across the globe, which allow individuals and companies to legally avoid paying fair taxes is essential. The 2021 Global Agreement on Corporate Taxation was a positive start, but more needs to be done.⁵⁶ In the context of helping countries recover from COVID-19, more could also be done by the international community – especially through the international financial institutions – to offer Asia-Pacific countries low interest loans, debt relief and payment windows which can be used to build universal social security systems and tackle inequality, which is likely to have increased as a result of the COVID-19 pandemic.

Finally, though, it is economic growth – and the additional tax that is generated – that will largely fund any expansion in the social security system. Therefore, it is essential that governments try to protect economic growth, including a rapid recovery from the economic slump caused by the COVID-19 crisis. By expanding investments in universal social security, countries will both stimulate and protect their economies from further economic shocks.⁵⁷ This, in turn, will generate more tax which means that, in part, higher investments in social security will pay for themselves. ITUC (2021) has shown that, across eight countries, the annual increase in tax revenues generated by a one percent investment in GDP would be between 0.9 and 2.7 percent. The estimated increase in Bangladesh would be 1.9 percent, in Georgia it would be 1.6 percent and in India it would be 2.3 percent.

⁵⁶ https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_3564

 $^{^{\}rm 57}$ See Kidd, Athias et al (2020) for a more in-depth discussion.

8 Conclusion

Based on international evidence, high inequality across the Asia-Pacific region is likely to be causing significant harm to individuals and nations, with the situation likely exacerbated during the COVID-19 crisis. If governments in the region are committed to building fairer and more prosperous societies, it is incumbent upon them to take policy actions that will effectively tackle inequality, while supporting recovery from COVID-19.

Inequality should be tackled through a range of mechanisms, including investments in public services such as health and education, while also ensuring decent work across the labour market. However, one of the most effective tools that governments have at their disposal to tackle high inequality is social security. Through a process of redistribution via taxation and investment in social security, governments can implement measures of solidarity that shift income from the richest members of society to the majority, most of whom are living on low incomes and need additional support. Large investments in social security, alongside progressive taxation, have been fundamental to the social, political and economic success of most high-income countries. Indeed, it was key to the recovery of Western Europe from the ravages of the Second World War.

However, across most of the Asia-Pacific region a model of social security still dominates that is similar to that used by high-income countries in the 19th and early 20th Centuries, but which they left behind many decades ago to build strong, rights-based systems that offer support to all citizens, across the lifecycle. This old-fashioned model failed in Europe and is unlikely to succeed in Asia due to its limited impacts and unpopularity among the main taxpayers, who are excluded from it. Fortunately, there are some countries in the Asia-Pacific region that are making the shift to more modern, universal lifecycle systems with the evidence indicating that they are already making significant impacts on inequality.

If countries in the Asia-Pacific region make the move to more modern, universal lifecycle systems, this report has shown that the impacts on inequality would be impressive. And, the more they invest, the higher the impacts. They would also be likely to see increases in human capital, a more dynamic workforce, more effective poverty reduction, greater economic growth and strong social contracts. The politicians responsible for these investments would enjoy the political rewards that derive from implementing popular policies.

The COVID-19 crisis makes it more important than ever to tackle inequality and invest in social security. It will help economic recovery while also offering hundreds of millions of households in the Asia-Pacific region the support that they so desperately need. If bold moves are not made by countries to invest in their people through social security, and inequality continues to remain high or increase, countries may face real dangers. Now is the time for greater solidarity among all citizens, with the rich contributing to the nation through a fair and progressive tax system, while also benefiting themselves via universal public services, including social security. They will also enjoy the benefits of larger markets and more peaceful societies. It is in everyone's interest to tackle high inequality. The question is: are there enough politicians who realise this and can bring about the shift in policy paradigm that the Asia-Pacific region requires (and its citizens demand)?

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Annex 1 Growth incidence curves

Growth incidence curves illustrate how welfare (measured either as income or consumption expenditure) has changed between two points in time for every percentile of the welfare distribution. Welfare growth rates (expressed as percentage changes) over the period are annualised to show the average yearly change within the time period. The figure below shows the annualised growth rates by income percentile for a selection of Asian countries. Data is from the latest version of the World Income Inequality Database, which provides harmonised and curated income inequality statistics. The dataset also includes information on mean income which is based on GDP at the percentile level for different years across a wide range of countries, which is used to construct the growth incidence curves.

Given that changes will always likely be positive across the welfare distribution, what growth incidence curves capture is the idea of pro-poor or equalising growth. Upward sloping curves to the right indicate that income increased more for the richest (worsening inequality), while downward sloping curves indicate that income increased more for the poorest than for the richest, reflecting a decrease in inequality. An inverted U-shape, as in the case of Viet Nam, indicates a relatively bigger improvement in living standards for middle-income households compared to both the richest and the poorest members of society.



Figure 0-1: Growth incidence curves for a select number of Asian countries

Source: UNU-WIDER, World Income Inequality Database (WIID) Companion dataset. Version 31 May 2021. Data points are for the latest year available between 2015/19 and earliest year available between 2000/05

Annex 2 – Panel Analysis on the Relationship between Social Protection and Inequality across the Asia-Pacific region

Annex 2 Panel Analysis on the Relationship between Social Protection and Inequality across the Asia-Pacific region

Analysis from different countries or regions provides mixed results on the relationship between social protection expenditures and inequality (Martinez-Vazquez et all., 2012; Mello and Tiongson; 2006). To better understand this relationship in Asia, a panel dataset analysis has been conducted following Wagle (2016) but covering a larger and more recent timeframe. By using panel data analysis, it is possible to assess the impact of large variations in the level of social protection expenditures and their sensitivity to disparities in regionality, population composition, and political economy across countries and over time.

A panel dataset on social protection expenditures from approximately 28 Asian countries, over a period of 20 years, has been gathered. The investigation required comprehensive data from multiple sources. The first component of the data consisted of measuring public social protection spending. Limited data availability meant that the analysis used a measure compiled from two different sources: using IMF's Government Finance Statistics database⁵⁸ and Asian Development Bank's Social Protection Expenditure in Asia and the Pacific database.⁵⁹ Expenditure is expressed as a percentage of GDP and represents cash and in-kind transfers provided to individuals and households both separately and on a collective basis, to relieve them "of the burden of a defined set of social risks" (ADB, 2018; IMF, 2001). The distribution of income is proxied by the Gini index, retrieved from two different sources, for comparison purposes: UNU-WIDER (2021)⁶⁰ and the World Bank World Development Indicators Database (2021).⁶¹ Further, to account for differences between the observed countries, several control variables have been obtained from the World Bank as well, including GDP per capita, GDP per capita growth, the population aged between 0-14, the population aged between 15-64, population (log), unemployment, trade and the democracy Index.

Table 0-1 reports outcomes from the models employing the Gini index outsourced from WIID. Regression results reveal a statistically significant negative relationship between social protection spending and inequality. Pooled Ordinary Least Square estimates (Column 1) suggest that every 1 percentage point increase in social protection expenditure has resulted in a 0.2 percent decrease in the Gini coefficient. This effect seems larger when controlling for time-invariant country-specific unobserved variables, or fixed effects estimates (Column 2). The relationship also holds after controlling for GDP per capita, GDP growth, population age structures, unemployment, trade, and the level of political freedom (Column 3), but the effect is smaller. Running the same model with the Gini index provided by the World Bank (Columns 4-6), an initial positive relationship between social protection spending and inequality arises, however the results are statistically insignificant (Column 4). Additionally, when accounting for time-invariant differences across the observed countries, social protection expenditures exhibit a significant, negative impact on inequality.

To conclude, findings from this analysis support the hypothesis that public spending on social protection plays an important role in inequality reduction strategies across Asia. It also highlights the

⁵⁸ https://data.imf.org/?sk=5804C5E1-0502-4672-BDCD-671BCDC565A9

⁵⁹ https://data.adb.org/dataset/social-protection-expenditure-asia-and-pacific

⁶⁰ https://www.wider.unu.edu/database/world-income-inequality-database-wiid

⁶¹ https://data.worldbank.org/indicator/SI.POV.GINI

Annex 2 – Panel Analysis on the Relationship between Social Protection and Inequality across the Asia-Pacific region

need to strengthen policy interventions to address vulnerabilities and the structural inequality experienced by a large portion of the Asian population. Future research should strive to include more detailed data that allows for the exploration of both direct and indirect mechanisms, as well as different policy designs and combinations of social protection measures, through which social protection policies can reduce inequality.

	WIID Gini Index			World Bank Gini index		
	Pooled OLS (1)	Fixed Effects (2)	Fixed Effects, with controls	Pooled OLS (4)	Fixed Effects (5)	Fixed Effects, with controls
			(3)			(6)
IMF & ADB	-0.223**	-0.610***	-0.267**	0.136	-0.400***	-0.096
Social Protection Expenditure (% of GDP)	(-2.09)	(-5.76)	(-2.47)	(1.30)	(-3.46)	(-0.77)
Controls	-	-	Yes	-	-	Yes
Constant	40.24***	42.04***	52.90	34.89***	37.61***	247.58***
	(63.48)	(81.73)	(0.85)	(53.57)	(61.37)	(3.44)
Countries	19	19	19	25	25	25
Observations	228	228	201	195	195	187

Table 0-1: The Impact of Social Protection Expenditure on Inequality, from 2000 onwards

Notes: Coefficients represent average marginal effects. T-tests are in parentheses and *** p<0.01, ** p<0.05, * p<0.1. The controls employed are GDP per capita, GDP per capita growth (annual %), Population aged between 0-14, Population aged between 15-64, Population (log), Unemployment, Trade, Democracy Index

Annex 3 – Methodology used to undertake the simulations of the impacts on inequality of social security systems and schemes

Annex 3 Methodology used to undertake the simulations of the impacts on inequality of social security systems and schemes

The simulations produced for this study and presented in Chapters 5 and 6 were based on the latest available nationally representative survey data for 13 Asian countries (Table 0-2). Households in each country were ranked based on their levels of per capita consumption expenditure and the beneficiaries of social security programmes identified. Whenever the microdata did not appear to fully capture the coverage or transfer amount suggested by the literature for some of the schemes investigated, schemes where simulated based on the latest available administrative information. Transfer amounts—for each scheme and altogether—were then subtracted from total household consumption to simulate their absence. Inequality measures were estimated for the baseline scenario (status quo) and for the simulated no-transfers scenario.

Country	Survey (Year)	Social security programmes				
		Child benefits	Disability benefit	Old age benefit	Household benefit	
Bangladesh	HIES 2016			Х		
Georgia	IHS 2018		Х	Х	Х	
India	IHDS-II 2011- 2012		Х	Х		
Indonesia	SUSENAS 2017				Х*	
Maldives	HIES 2016	Х	Х	X**		
Mongolia	HSES 2018	Х	Х	X*		
Nepal	AHS 2014- 2015	X**		X**		
Pakistan	HIICS 2015- 2016				Х	
Philippines	APIS 2014			Х	Х	
Sri Lanka	HIES 2016		Х	Х	Х	
Thailand	SES 2018		Х	Х		
Uzbekistan	L2CU 2018	Х	Х	Х	Х	
Viet Nam	VHLSS 2016		Х	Х	Х	

Table 0-2: List of countries and social protection programmes identified within the surveys

Notes: * indicates simulation of coverage or transfer amount ** indicates simulation of coverage and transfer amount. In the case of Mongolia and Uzbekistan other social security schemes identified have also been included.

To provide a more nuanced account of the redistributing effect of social protection, the analysis allowed for taxation and savings. It was assumed that the total cost of the programmes would be covered by households. Although the type of tax has not been specified, the simulations assume that taxes have an impact on overall household consumption. Two tax systems were simulated. In addition to a flat tax rate system, a progressive tax system has been assumed whereby households in the poorest quintile pay 20 percent of the rate paid by the richest households, and households in the second, third and fourth quintiles pay – respectively – 40, 60 and 80 percent the rate paid by the richest households.

Annex 3 – Methodology used to undertake the simulations of the impacts on inequality of social security systems and schemes

The simulations also assume that households in the top three quintiles have a positive marginal propensity to save. This means that, for households in these quintiles, a portion of the transfers or returned taxes received will be saved. Specifically, it is assumed that those in the third and fourth quintiles save 5 percent of any additional income and that the top quintile saves 10 percent. The same is also assumed when households are paying taxes: a share of the taxes paid will not impact existing consumption in these quintiles.

Inequality measures for all 13 Asian countries were estimated in five scenarios:

- 1. Status quo
- 2. No transfers, a flat tax rate, and no savings
- 3. No transfers, a flat tax rate and some savings
- 4. No transfers with an increasing tax rate and no savings
- 5. No transfers with an increasing tax rate and some savings

For a subset of four countries with existing low social protection budgets—Bangladesh, Indonesia, Pakistan and Sri Lanka— hypothetical social protection schemes (universal old age pension, universal child benefit and universal disability benefit) were also simulated on top of the no-transfers scenario, to see how they compared to the status quo. The choice of transfer amounts for this set of simulation reflected a final total investment for each country of one percent, two percent and three percent of their GDP. Similar to the previous set of simulations, five scenarios were explored, reflecting different assumptions on taxation and savings.

Because of the conservative assumptions on taxation and propensity to save, the results do not vary much across the scenarios. Chapters 5 and 6 present the differences between the status quo scenario and a scenario with increasing tax rates and some savings.



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