



Impact of the twin crises on human welfare in Myanmar

October 2021

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Key Messages

- Poverty headcount is likely to return to the levels not seen since 2005, effectively erasing the benefits of the pre-COVID-19 unprecedented economic growth;
- Similarly, poverty depth will revert to levels not seen since 2005. Put simply, a significant amount of money (4.5% of pre-COVID-19 GDP) would be needed to bring the new poor above the poverty line. This additional spending is sizeable, given that pre-COVID-19 spending on social transfers was less than one percent of GDP;
- In addition to child poverty, urban poverty is likely to increase three-fold, also impacting upon the overall security of urban areas;
- The poorest states/regions prior to COVID-19 and the military takeover are likely to still remain poor;
- The poverty gap (measure of depth of poverty) is likely to remain high in the poorest states, though it is likely to increase by a higher margin in states/regions such as Mandalay and Yangon.
- The highest number of poor people will be living in Ayeyarwady, followed by Yangon and Sagaing.
- When considering the state/region breakdown, the highest amount of resources needed to bring the poor over the poverty line will be needed in Yangon, influenced partly by conflict-related concentrated violence.

“ The rising levels of poverty and insecurity are expected to impact upon access to nutrition, health and education, **negatively impacting upon the human capital of the next generation.** ”

Executive Summary

Myanmar's hopes for a speedy recovery from the COVID-19 induced economic crisis received a setback in early 2021. On 1st of February, the Burmese military staged a coup d'état, taking control of the commanding heights of Myanmar's society and economy. The effects of this combined crisis are still being felt throughout the country, with analysts predicting an annual economic contraction of up to 18 percent. In the same vein and mostly building on preliminary anecdotal evidence, earlier in the year, a UNDP analysis warned that half of the population in the country could be living in poverty by early 2022.

Against this background, in this policy brief we update the initial findings on the impact of the combined crisis on poverty. In doing so, we provide additional robustness to the findings from the initial report by relying on primary data collected in May-June, 2021. This updated analysis suggests that poverty headcount rates could increase by 20 percentage points (relative to the 2017 levels – the last time welfare in Myanmar was assessed). In other words, about 46 percent of the population in the country could be living below the national poverty line by early 2022, reconfirming our earlier pessimistic scenario projections. The additional analysis conducted for this policy brief also suggests a significant increase in other poverty indicators: extreme poverty and poverty gap, effectively erasing the progress made over the last two decades.

Disaggregated analysis indicates that the urban poverty headcount could increase threefold, coupled with additional increases in rural poverty. As a direct result of this, the poverty headcount is expected to spike in more urbanised states/regions such as Yangon and Mandalay. Poverty is also expected to increase in the consistently poorest parts of Myanmar (Chin and Rakhine), rendering poor over two thirds of the people living there.

Finally, while rising rates of poverty are likely to exacerbate the current livelihoods of many households in Myanmar, there is a much more profound longer term effect. With over half of children in the country projected to be living below the national poverty line, these worrying trends are likely to worsen the human capital of the next generation. Poverty impacts upon all stages of human capital building, from increasing nutrition-related deficiencies and stunting physical growth and cognitive abilities, to increasing high school drop-out rates and deteriorating education outcomes. Ultimately this could result with suboptimal medium to long term economic growth, which, in turn, could see many households stuck in poverty for the years to come.

Background and Objectives

01

The events on and after 1st of February, 2021 are creating significant headwinds on the decade-long economic gains, driven by economic reforms, gradual opening to the world and inching towards democratic governance¹. More importantly, the political upheaval happened just as the hopes of defeating COVID-19 (with the advent and deployment of vaccines) were increasing. This double crisis, therefore, was projected to have a significant impact on the economic activity and livelihoods of the Burmese people². Earlier in the year, in an initial study to estimate the impact of the double crisis on poverty, UNDP projected that, in the worst case scenario, poverty may see a two-fold increase, relative to the latest available welfare assessment in the country³. More specifically, the report argued that in the worst case scenario, almost half of the population in Myanmar could be living below the national poverty line⁴ by early 2022.

Against this background, the aim of this policy brief is two-fold: (i) first, to provide an update of the earlier assessment on the impact of the compounded crisis (COVID-19 and the military takeover) on poverty rates in Myanmar. In doing so, we rely on newly gathered data, which further increases the robustness of the earlier analysis⁵; and (ii) to assess the potential impact of the rising poverty rates on access to education and health, thus impacting upon human capital in the medium to long run.

“Almost **half of the population** in Myanmar could be living below the national poverty line by early 2022 in the worst case scenario.”

1 https://www.asia-pacific.undp.org/content/rbap/en/home/library/democratic_governance/covid-19-coup-d-etat-and-poverty-impact-on-myanmar.html

2 <https://www.independent.co.uk/news/un-report-says-myanmar-poverty-could-double-from-coup-chaos-myanmar-bangkok-aung-san-suu-kyi-zoom-atms-b1840041.html>

3 https://www.asia-pacific.undp.org/content/rbap/en/home/library/democratic_governance/covid-19-coup-d-etat-and-poverty-impact-on-myanmar.html

4 The national poverty line in Myanmar is 1590 kyat per day (roughly 1.17 USD per day).

5 The timeframe for this analysis is 2020 until mid-2021 and it takes into account the compounded effect of the first and the second Covid-19 as well as the events associated with the military takeover, which occurred on the 1st of February, 2021.

Methodology and assumptions

02

In estimating the effect of the double crisis on poverty rates in the country, we rely on a ‘bottom-up’ approach which utilizes available survey data collected before and during the two crises (COVID-19 and military takeover). In this exercise, we rely on the following surveys: Myanmar Living Conditions Survey (2017) and Household Vulnerability Survey (2020) to estimate the effect of COVID-19. In addition, we couple the data above with the People’s Pulse Survey (May-June, 2021) in order to analyse the compounded effect of COVID-19 and military takeover on poverty rates. It is important to note that in this paper we provide an updated set of assumptions on the impact of the economic crisis associated with the military takeover⁶ - while the assumptions/effect of the initial waves of COVID-19 on welfare remain unchanged - compared to the earlier version of this analytical work (see UNDP, 2021)⁷. In other words, we focus on the events since February 1st, 2021, their impact on economic activity and, ultimately, their impact on welfare and livelihoods (further details of the exercise are provided in the Technical Appendix).

We base our analysis on the MLCS – a nationally representative survey capturing various aspects of households’ living conditions in Myanmar. Using the findings from HVS 2020 we use a few assumptions to estimate the drop of income due to COVID-19 (further details are provided in the Technical Appendix). When it comes to the effect of income drop on poverty/welfare, it is

not only the crisis itself that matters (duration, intensity) but also how people cope with it. In the case of COVID-19, we assume the crisis to be sharp though transitory in nature (to some extent this is evident by the coping mechanisms people reported in HVS 2020). In other words, we assume that households can smooth their consumption by relying on savings or borrowing from friends/family. As a result, and building on the literature on shocks/coping mechanisms, we estimate the extent to which the income shock will result in reduction in consumption (full details of the exercise including results from the literature review are available in the Technical Appendix).

The newly calculated income and consumption aggregate (after taking into account the effect of COVID-19), in turn, represents the baseline for deriving the effect of the second shock (i.e. military takeover) on both, income and consumption. Building on the methodological approach adopted in the previous exercise (see UNDP, 2021) and using the results from the People’s Pulse Survey (2021), we use the following assumptions on losses of income as a result of the military takeover:

- (i) **Reduction in income of non-farm businesses of 50 percent.** Indeed, as evidenced by the data from People’s Pulse, this is the economic activity which has received a significant hit as a result of the events that unfolded since February 1st,

6 The set of assumptions on the impact of the military takeover in the previous publication were almost entirely based on anecdotal evidence collected in the early days of the military takeover.

7 In addition, during the time of writing, the third wave of Covid-19 was in full swing, which may further exacerbate the ongoing situation.

2021. This assumption is supported by additional data that has emerged since then. A recent World Bank publication suggests that services and, in particular, retail trade (which includes most of the small, family-owned businesses) have been affected by reduced mobility and demand, disruptions to key business services, and protests and security concerns⁸. The disruptions of internet services have had an additional and profound effect on the small and medium size business that are internet-dependent.

(ii) **Reduction in wages of 25 percent.**

There are two reasons for making this assumptions on wage related income, which is slightly lower than non-farm businesses. First, as indicated by People's Pulse, income from a job remains the most significant source of income (about 52.8 percent of respondents indicated this is as a primary source of income for their household). In addition, while 42 percent of respondents have said that household's income has fallen as a result of decreased revenues from household businesses, only 15 percent have said that reduction of income is due to lost job, while 13 percent have claimed that losses of income is due to reduced salary. Second, a recent report

by the World Bank corroborates the finding above stating that since April workers in the manufacturing sector have returned to factories, while there has also been an increase in new orders.

(iii) We assume a **reduction in agricultural income of 25 percent.**

We make this assumption because of two reasons. First, nearly 21 percent of respondents stated that the loss of household income is due to decreased revenue from household farm. Furthermore, as indicated by existing research, farmers have been affected by: (i) declining incomes because of lower farm-gate prices for some produce (especially perishable items like tomatoes and onions); and (ii) higher prices for key inputs such as fertilizer, fuel, seeds and equipment, as well as food items of which they are net buyers (such as cooking oil, as well as rice in certain regions)⁹. Reduced incomes and higher costs, in combination with financial constraints and output market uncertainties, are also reducing the ability and appetite of farmers to invest.

(iv) Finally, and given the evidence from People's Pulse Survey (2021) we assume a **10 percent reduction in remittances and social transfers.** Remittances are taking a significant hit and are likely to fall further,

50% Reduction in income of non-farm businesses

25% Reduction in agricultural income

25% Reduction in wages

10% Reduction in remittances and social transfers

8 World Bank Myanmar Economic Monitor July 2021.

9 <https://www.ifpri.org/news-release/monsoon-rice-crop-peril-farmers-hit-coup-turmoil-frontier-myanmar>

10 <https://www.reuters.com/article/myanmar-migrant-economy-idUSL8N2KU0K9>

including due to industrial slowdowns, impact on businesses, and disruptions in the banking system.¹⁰ Finally, social transfers are also likely to be somewhat affected due to ongoing disruptions in the financial system.¹¹

When applied to the baseline data (after taking into account the effect of COVID-19), these assumptions imply an income drop of 22.3 percent as a result of the economic crisis associated with the military takeover. This is in line with the average income drop registered through the People's Pulse Survey (2021)¹².

To what extent this loss of additional household income will result in a loss of consumption and, therefore, a rise in poverty, depends on a couple of factors¹³: (a) duration of the compounded crisis; and (b) the magnitude of the crisis and, ultimately, how people cope with

it. Unlike the case of COVID-19 where the crisis was assumed to be temporary, the effect of the ongoing political crisis is assumed to be longer in duration and more severe in magnitude. This would result in significant slowdown and further reduction in income-generating activities. More importantly, coping with the crisis might be more difficult in this scenario, resulting in a permanent downward shift in consumption patterns (see the Technical Appendix for further details). This assumption is further confirmed by the results stemming from People's Pulse Survey (2021). For example, over two thirds of households have started cutting down on non-food consumption, with an additional third of households using reduction in food consumption as a coping strategy. Moreover, while a fraction of the population has relied on savings and borrowing to make ends meet, the prevalence of these coping mechanisms (as the People's Pulse data suggests) is decreasing. In addition, close to 40 percent of households who have used savings have no savings left. Thus when estimating the effect of the military takeover, we assume that a unit drop in income would result in a unit drop in consumption, and based on this, we estimate the new consumption aggregate (further details are provided in the Technical Appendix).

Similarly to the methodological approach adopted in the initial publication¹⁴, we used the national poverty line and the newly calculated consumption aggregates to compute poverty headcount rates which would take into account the compounded effect of COVID-19 and the military takeover (further details of the exercise are available in the Technical Appendix).

“ Unlike the case of COVID-19 where the crisis was assumed to be temporary, **the effect of the ongoing political crisis is assumed to be longer in duration and more severe in magnitude.** ”

11 Discussions with UNICEF reveal that the payments of current social protection programmes, i.e., Maternal and Child Cash Transfers and Social Pension have been paused since the civilian government was overthrown. Most of the staff from the Department of Social Welfare (DSW) support the Civil Disobedience Movement, causing difficulty for the Ministry of Social Welfare, Relief and Resettlement to process those payments.

12 The People's pulse data was collected in May/June 2021.

13 It's important to note that Myanmar's poverty line is consumption based.

14 https://www.asia-pacific.undp.org/content/rbap/en/home/library/democratic_governance/covid-19-coup-d-etat-and-poverty-impact-on-myanmar.html

Results

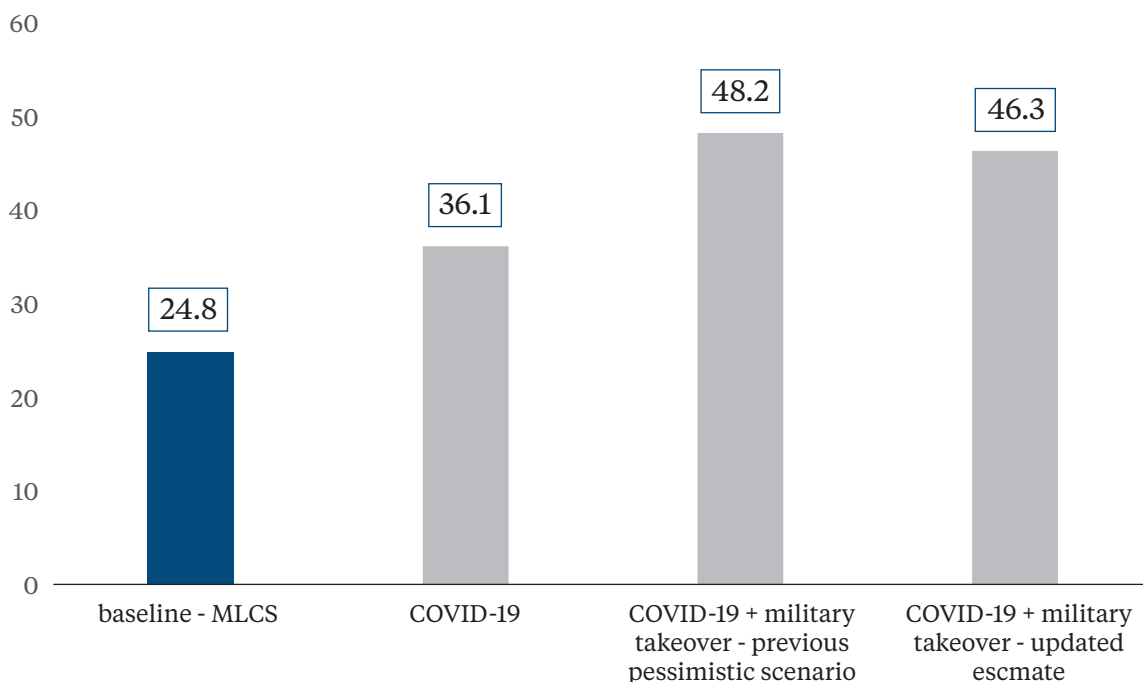
03

Poverty Headcount

The results of this analytical exercise are presented in Figure 1. As evidenced by the chart, the compounded effect of the two crises (COVID-19 and military takeover), given the refined assumptions, corresponds to an increase in the poverty rate of 20 percentage points, relative to the baseline data (MLCS, 2017)¹⁵. More specifically, it is expected that the poverty rate by early 2022 could climb to 46.3

percent. While this is slightly lower than the originally projected pessimistic scenario (UNDP, 2021) it is still comparable, being only a couple of percentage points lower. In other words, our analysis, using the refined data, further confirms and strengthens the earlier projections of a roughly two-fold increase in the poverty headcount rate¹⁶.

Figure 1: The compounded effect of the coup on the poverty rate in Myanmar (percent)



Source: MLCS, 2017 and authors' estimates

¹⁵ The background and a full set of results could be found in the initial publication (UNDP, 2021). In addition, those results also feature both, the lower and upper bound of the impact of COVID-19 on poverty. For brevity and simplicity, here we only include the upper bound of the impact of COVID-19. Further details of the empirical exercise are available in the technical appendix.

¹⁶ Moreover, this finding is similar to the poverty projections done by the World Bank (2021), which suggest a doubling of poverty as a result of the double shock (Covid-19 and military takeover). There are differences in the analytical approach in that the World Bank estimates rely on using disposable income as a proxy for consumption aggregate as well as using drops in income by sector of economic activity (e.g. manufacturing, agriculture), rather than type of income as done in this exercise.

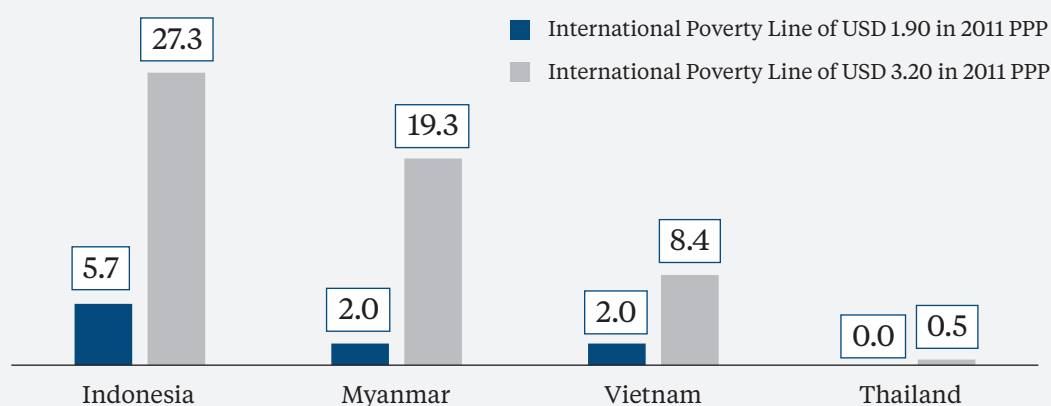
This doubling of poverty is mirrored in recent analysis undertaken by the World Bank in their Myanmar Economic Report July 2021 where they state: *“The share of Myanmar’s population living in poverty is likely to more than double by the beginning of 2022, compared to 2019 levels”*¹⁷.

In addition to assessing the poverty rate using the national poverty line we also examined extreme poverty. The details of this exercise are presented in Box 1 below.

Box 1. Extreme poverty

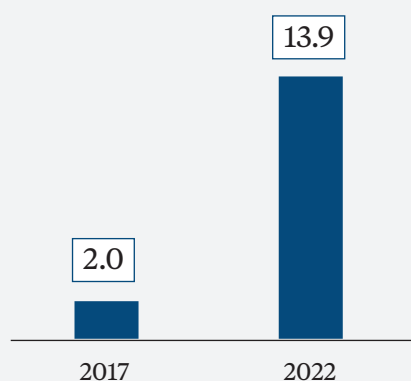
The national poverty line is equal to 1,590 in 2017 quarter 1 kyats, which corresponds to USD 3.60 USD in 2011 PPP. Based on this, in Myanmar 19.3 percent of the population was living below USD 3.20 in 2011 PPP, which is quite close to the 24.8 percent from the national poverty rate (Figure B1).

Figure B1: Percentage of population living below International Poverty Lines by country



In order to examine extreme poverty an international poverty line of 1.90 USD per day (2011 USD, PPP) is used. Results from MLCS 2017 showed that extreme poverty in Myanmar was 2 percent (Figure B1 and B2). Comparing poverty across countries requires: (i) establishing cost-of-living comparability across countries using an adjustment factor, the Purchasing Power Parity (PPP) factor, in order to make all incomes comparable and expressed in the same unit; (ii) creating a threshold, an international poverty line, which can be converted into comparable terms across countries; and (iii) a welfare aggregate (income or consumption) adjusted for household size. Our estimates suggest that extreme poverty could rise to 13.9 percent by 2022, an increase of over ten percentage points.

Figure B2: Extreme poverty based on USD 1.90 in 2011 PPP

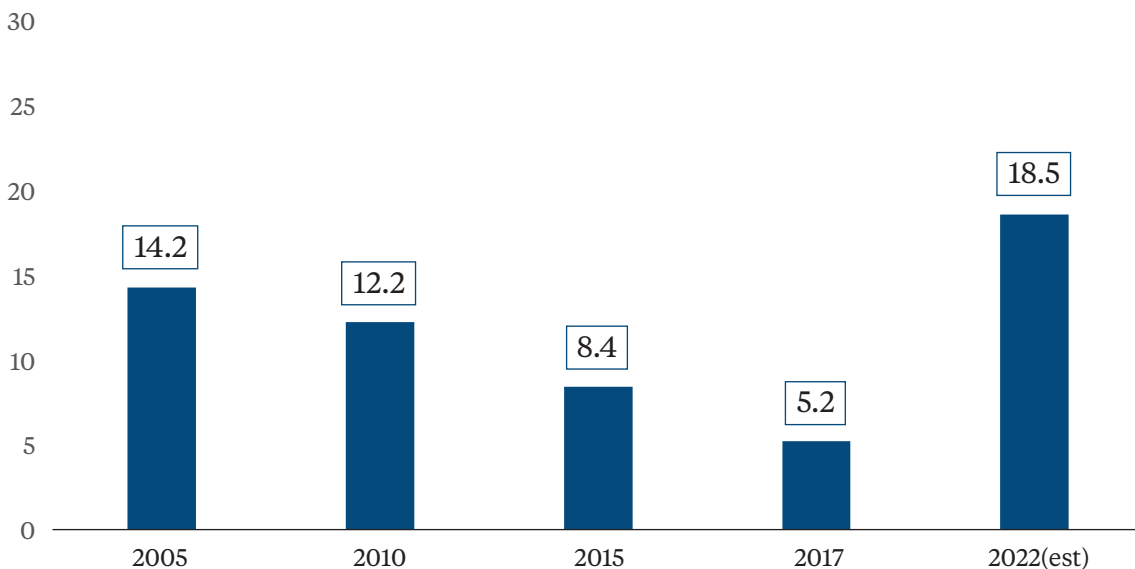


Poverty Gap

Poverty headcount only captures one dimension of poverty. In order to shed more light on how the ongoing political crisis impacts upon welfare, we also derived the poverty gap. The poverty gap, represents the depth of poverty and it is the mean distance separating the population from the poverty line, with the non-poor being given a distance of zero. Using the standard methodological approach we find that the poverty gap, as a result of the combined COVID-19 and military takeover effect could increase to 18.5 percent (Figure 2). In other words, both, the incidence and depth of poverty are likely to revert back to levels not seen since 2005.

The poverty gap is a measure of the poverty deficit of the entire population, where the notion of “poverty deficit” captures the resources that would be needed to lift all the poor out of poverty through perfectly targeted cash transfers. Following this definition, this would require significant resources in order to bring the new cohort of the poor above the poverty line. As shown in Figure 3, the total amount of resources through perfectly targeted cash transfers would amount to 4.5 percent of GDP, which is much higher than the pre-COVID-19 spending on social assistance¹⁸. In absolute terms, this amount is equivalent to 3.5 billion USD – a massive chunk of money that the international donor community may need to factor in for their support to Myanmar.

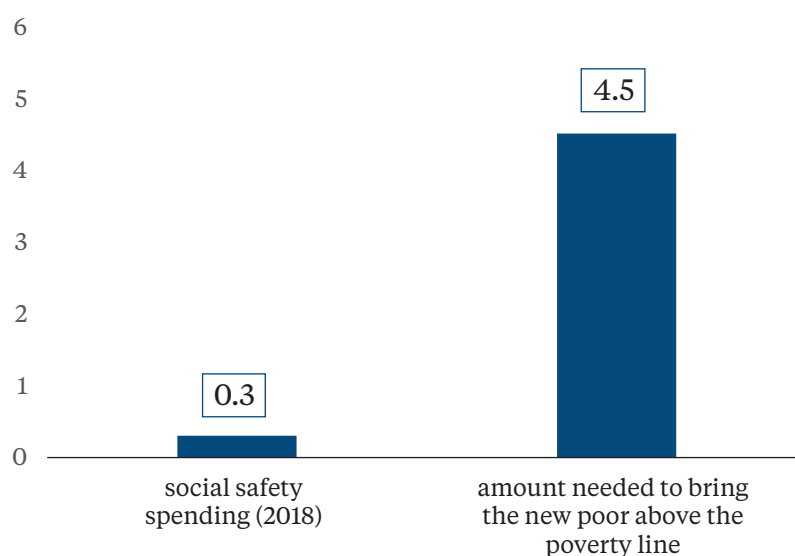
Figure 2: The compounded effect of Covid-19 and military takeover on poverty gap in Myanmar (percent)



Source: MLCS, 2017 and authors' estimates

¹⁸ The total amount was obtained by multiplying the poverty gap, poverty line as well as the total population of the country, following the standard methodology.

Figure 3: Social safety net spending (pre-COVID-19) and the total amount of money needed to bring the new poor above the poverty line, in percent of GDP



Source: ASPIRE dataset, MLCS 2017, World Development Indicators and authors' estimates

Urban/rural, children and female-headed household differences

Further investigation reveals that the combined crisis has heightened some of the pre-existing vulnerabilities.

- (i) First, as the near poor households were most likely to be urban, the immediate impacts on health and loss of income that stemmed from the double crisis meant that most of them were pushed below the poverty line. In addition, most of the small businesses (which were most affected by the double crisis) are located in urban areas, further attesting to this finding. Disaggregated data from our analysis shows that, considering the impact of the double crisis on poverty, the urban poverty rate more than triples (from 11.3 percent in 2017 to 37.2 percent with the combined crises).
- (ii) Even when considering the effect of the double crisis, child poverty in Myanmar remains higher than the overall poverty and it is expected to further increase.²⁰ As per our estimates, roughly half of the children in Myanmar are expected to be living in poverty by 2022. This not only establishes intergenerational transmission of poverty as a persistent phenomenon in Myanmar, but confirms the notion that the double crisis could keep a large part of a whole generation of children locked in a perpetual poverty trap;

This is a direct result of the significant impact of the double crisis on small, non-farm businesses that are mostly located in urban areas¹⁹;

¹⁹ <https://www.cebm.net/covid-19/what-impacts-are-emerging-from-covid-19-for-urban-futures/>

²⁰ <https://www.unicef.org/myanmar/reports/overcoming-child-poverty-myanmar>

(iii) The vulnerability of female-headed households has been previously well documented and, moreover, given our estimates, it is expected that the female headed households are going to be more likely to be living below the national poverty line.²¹ This rising face of female unemployment and poverty, and resulting deprivations, would be an undeniable setback on gender equality and empowerment goals, with an adverse multiplier effect across all SDGs.

In addition to the findings above, the representativeness of MLCS 2017 by state/region also allows us to analyse the effect of the double crisis on poverty rates by state/region level. The results of this exercise are presented in Figure 4. There are a few findings that stem from this analysis. First, the poorest states/regions in the Union (as per MLCS 2017) remain poorest once the effect of the double crisis is taken into consideration. More specifically, the poverty rate in Chin is expected to increase up to 71.5 percent, followed by Rakhine (63.6 percent). Second, poverty is likely to increase by a more significant margin in states/regions such as Yangon and Mandalay, where the poverty headcount rate is expected to triple. This finding is probably a direct result of the impact of the double crisis on small businesses which are mostly situated

in urban areas (e.g. Yangon, Mandalay)²². The Appendix Figure A1 provides a snapshot of the total number of poor people in each state/region as a result of the combined crisis. As evidenced by the chart, the highest number of poor people will be living in Ayeyarwady, followed by Yangon and Sagaing. It is worth emphasising that these absolute numbers are also influenced by the total population in the respective state/region.

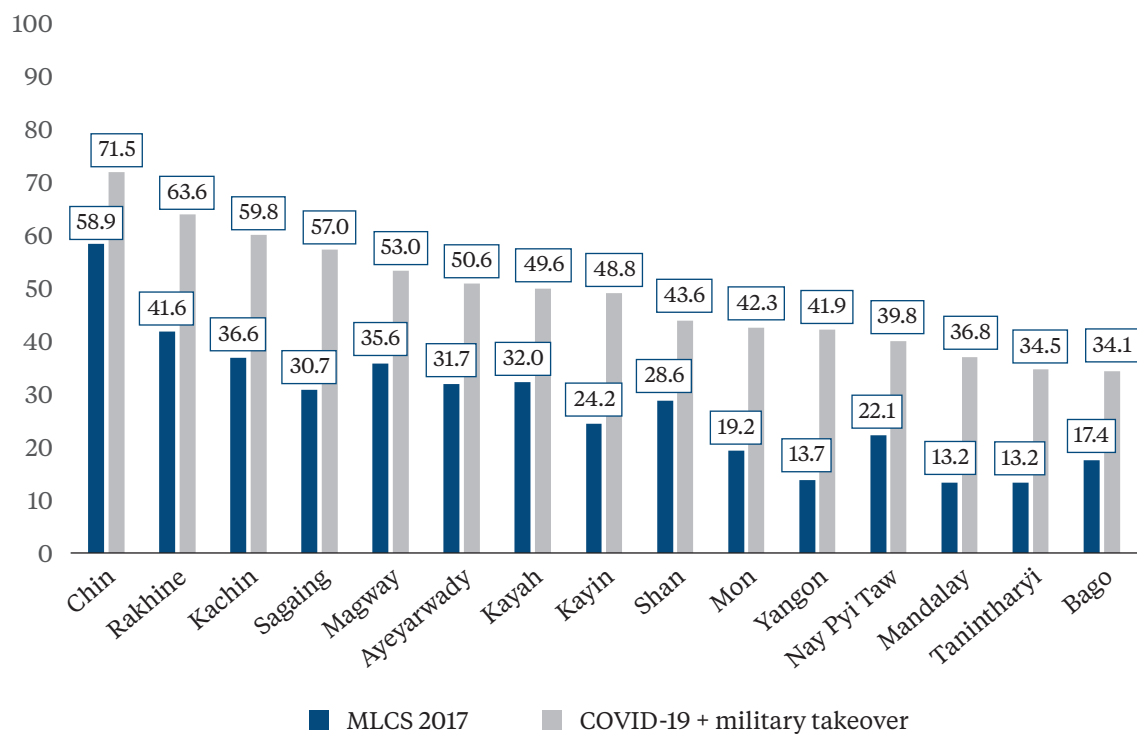
The findings from above are confirmed when considering state/region disaggregated data on poverty gap (Figure 5). As evidenced by the chart, poverty gap is likely to be highest in states/regions with highest poverty headcount rate (e.g. Chin). More importantly, and in line with the analysis on poverty headcount presented above, the poverty gap is likely to increase by a higher margin in states/regions such as Yangon and Mandalay, pushing swathes of people deeper into poverty. In addition and given the absolute number of new poor as a result of the combined crises, different amount of social transfers will be needed to bring the new poor above the poverty line. More specifically, in places like Yangon, almost 500 million USD per year in social transfers need to be given in order to bring the new poor above the poverty line (see appendix Table A2). Similarly high amount of transfers will be needed in places like Sagaing and Mandalay.

“Poverty is likely to increase by a more significant margin in states/regions such as Yangon and Mandalay, where the poverty headcount rate is expected to triple, probably a direct result of the impact of the double crisis on small businesses which are mostly situated in urban areas.”

²¹ https://www.researchgate.net/publication/322172667_Household_shocks_and_coping_mechanism_evidence_from_Sub-Saharan_Africa

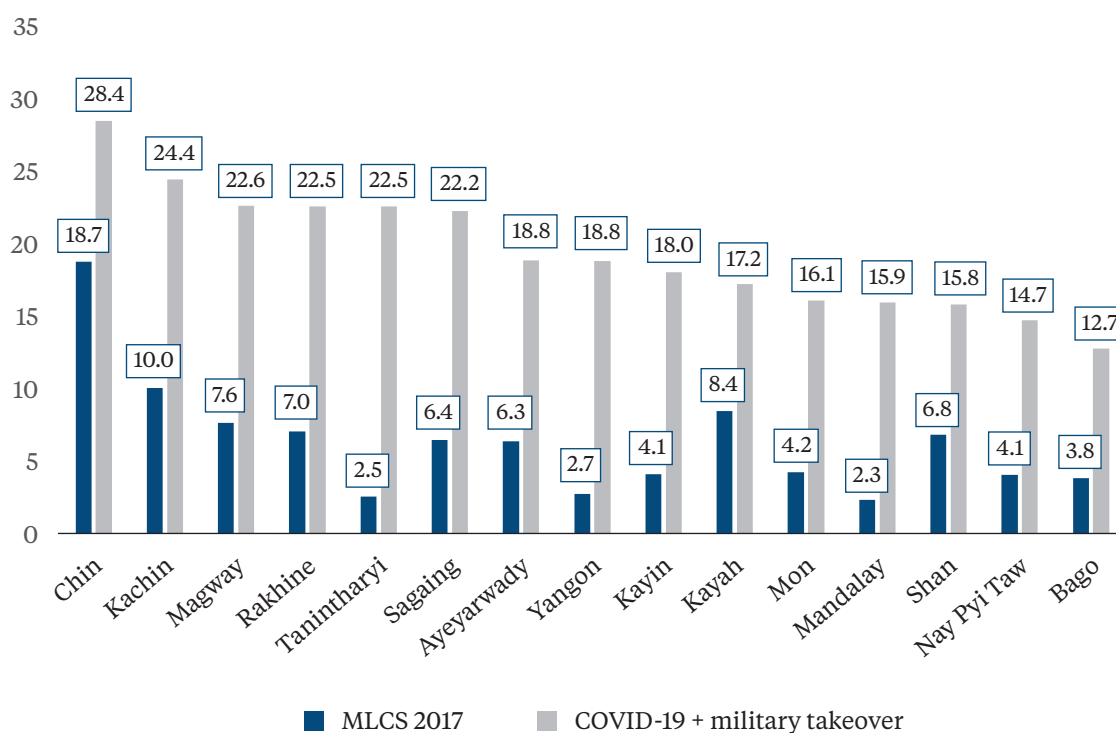
²² The worsening poverty has resulted, inter alia, with overall worsening of security, particularly from Yangon. The latest list of the Economist's Safe Cities Index put Yangon at the very bottom of the list (60/60) trailing behind cities such as Caracas and Lagos.

Figure 4: The compounded effect (Covid-19 and military takeover) on poverty headcount in Myanmar (percent), by state/region



Source: MLCS, 2017 and authors' estimates

Figure 5: The compounded effect (Covid-19 and military takeover) on poverty gap in Myanmar (percent), by state/region



Source: MLCS, 2017 and authors' estimates

The potential impact of rising poverty on human capital – transmission mechanisms

04

The effects of the rising poverty rates, as a result of the double crisis, are likely to reverberate in the next few years, affecting the human capital development of the next generation. In turn, this will have tremendous impact on the long term growth prospects of Myanmar. Against this background, in this section, we provide an overview of the potential channels of the impact of poverty on human capital at different stages of the life cycle. We start with the impact of poverty on nutrition, followed by access to health and education.

Nutrition

The existing literature points to a robust link between poverty and outcomes associated with food deficiency (e.g. stunting). In particular, evidence from low-income and middle-income countries suggests that the prenatal period²³ and the first 24 months after birth²⁴ are the most sensitive times for stunting. In addition, emerging

evidence suggests that poverty is associated with delays in cognitive development of up to 5 years²⁵, illustrating that sensitive periods for economic adversity extend through at least 5 years of age. The impact of poverty on stunting works through a few channels: inadequate intake of food rich with micronutrients, lack of sufficiently diversified diet as well as skipping meals altogether²⁶.

Some of these transmission mechanisms are already being felt in the case of Myanmar. Data from People's Pulse (2021) shows a clear rising trend of households eating less food²⁷. More specifically, eating less food is more prevalent in urban areas, and among those households where someone has lost a job/ceased self-employed activities since the COVID-19 restrictions began. The interplay of these factors could result in an increase in malnutrition indicators²⁸, which, as the baseline data from DHS (2015) shows, were already high, particularly among the poor (Figure 6).

23 <https://bmcpediatr.biomedcentral.com/articles/10.1186/1471-2431-14-58>

24 <https://pubmed.ncbi.nlm.nih.gov/23746772/>

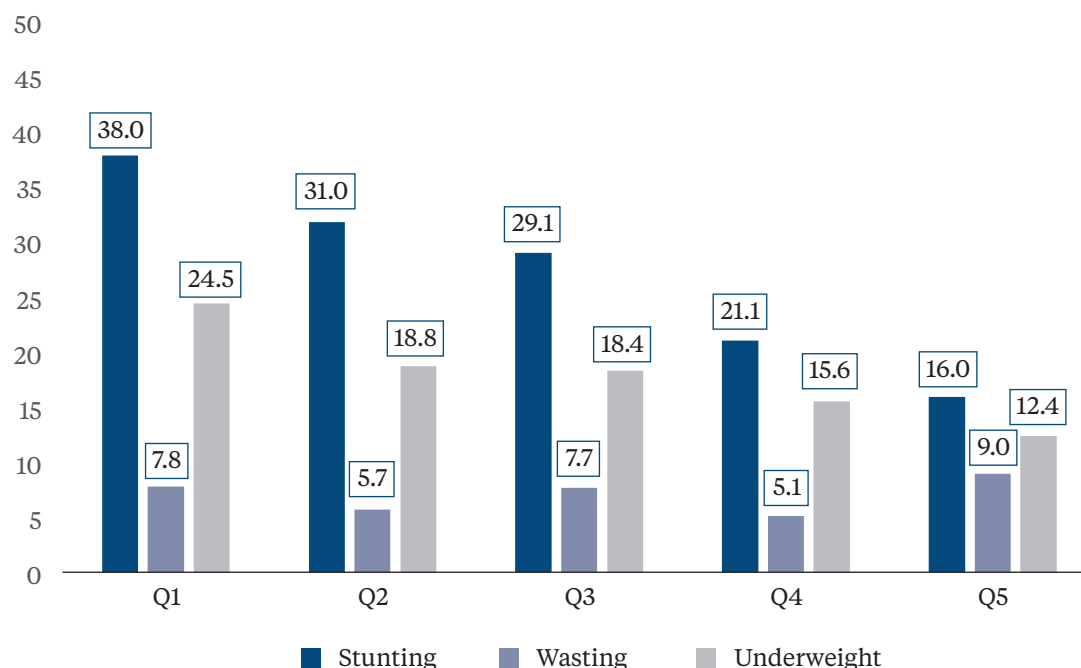
25 [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(07\)60032-4/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(07)60032-4/fulltext)

26 <https://www.thelancet.com/pb/assets/raw/Lancet/stories/series/nutrition-eng.pdf>

27 We assume that children also ate less, even though the questions from the People's Pulse related to the entire households, rather than children only.

28 <https://www.sciencedirect.com/science/article/abs/pii/S027795361000537X>

Figure 6: Malnourishment indicators in Myanmar, children under 5, by wealth quintile, in percent



Source: DHS 2015

The rising levels of stunting and wasting, are, in turn, associated with deficits in language skills and cognition²⁹. The association of stunting and developmental deficits was previously observed in infants between 3 and 23 months of age in India, Indonesia, Peru, and Senegal³⁰.

Education

The existing literature suggests that rising poverty is also associated with poor maternal education, increased maternal stress and depression^{31,32} and inadequate intellectual stimulation in the home³³. In addition, it has been reported that when faced

with an income shock, some households remove children from school in order to have an extra helping hand/contribution to the household budget³⁴. Coupled with the impact of poverty on child cognitive development elaborated in the section above, this confluence of factors implies an overall negative effect on education outcomes³⁵. For example, existing cross country evidence suggests that for every 10% increase in the prevalence of poverty there was a decrease of 6.4% of children entering the final grade of primary school³⁶.

How does this rich empirical literature translate in the context of Myanmar? While the primary

29 <https://pubmed.ncbi.nlm.nih.gov/21676102/>

30 <https://pubmed.ncbi.nlm.nih.gov/21676102/>

31 <https://www.annualreviews.org/doi/abs/10.1146/annurev.psych.53.100901.135233>

32 <https://pubmed.ncbi.nlm.nih.gov/12792663/>

33 <https://openknowledge.worldbank.org/handle/10986/8929>

34 https://www.researchgate.net/publication/333654047_Hit_and_Run_Income_Shocks_and_School_Dropouts_in_Latin_America

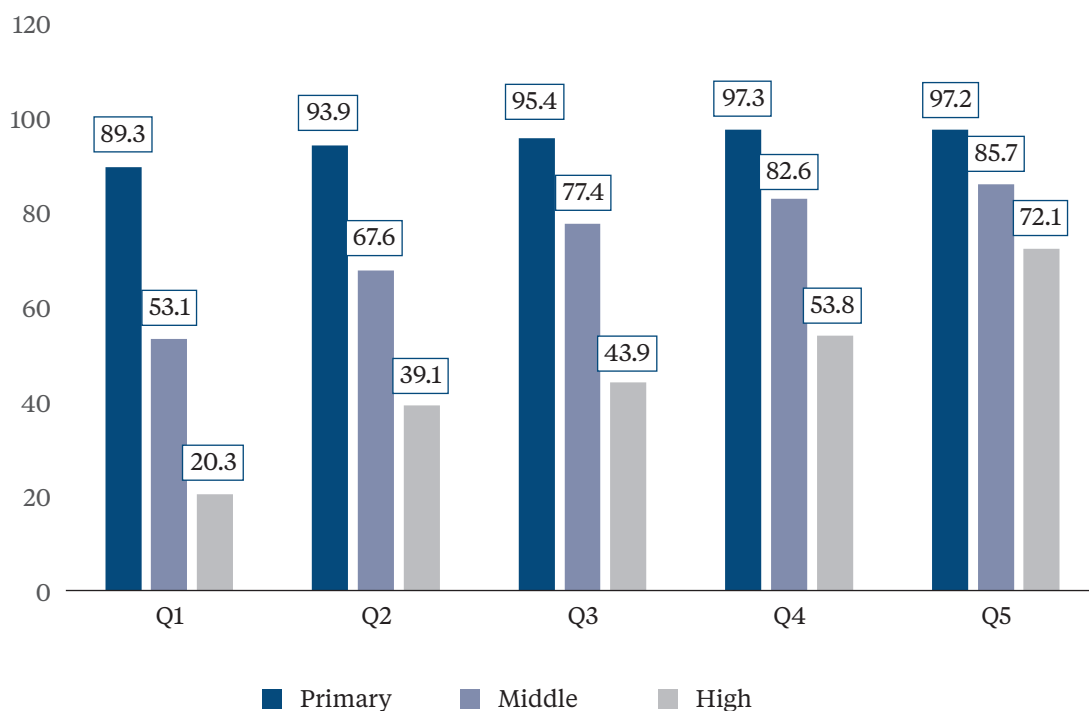
35 <https://openknowledge.worldbank.org/handle/10986/8929>

36 [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(07\)60032-4/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(07)60032-4/fulltext)

school enrolment rate was nearly universal in 2017 (see Figure 7), due to the compulsory nature of the primary education system in the country, the enrolment rates in middle and high school were much lower. In particular, while half of the poor children were enrolled in middle school, only about a fifth of poor children were enrolled in high school. Rising poverty rates are likely to further reduce the enrolment rates mentioned above. This could be further exacerbated by security challenges associated with the military takeover. Recent anecdotal evidence points out that education enrolment and attendance

were limited due to a combination of factors, including parents' concern about safety and security³⁷. This comes at the back of a very difficult year, which saw schools being closed for number of days. While there were efforts to minimize risk and keep schools open, the second COVID-19 wave in late 2020 resulted with yet another school closure³⁸. Finally, the most recent events (from 1ST February 2021 onwards) resulted with many teachers' arrests and suspensions (as a result of their participation in the civil disobedience movement), which in turn will also impact upon the learning process³⁹.

Figure 7: Total primary, middle, and high school net enrolment rates, by consumption quintile (in percent)



Source: MLCS, 2017

37 UNICEF Myanmar Humanitarian Situation report 5 – 2021.

38 <https://news.un.org/en/story/2020/10/1074602>

39 <https://www.france24.com/en/asia-pacific/20210601-myanmar-teachers-and-students-defy-junta-as-schools-reopen>

Health and access to health

The existing literature also stipulates a robust link between poverty and health outcomes. The poor have higher than average child and maternal mortality, higher levels of disease and more limited access to health care and social protection⁴⁰. More importantly, the poor are more likely to depend on their health for their livelihood. Thus, when a poor or socially vulnerable person becomes ill or injured, the entire household can become trapped in a downward spiral of lost income⁴¹.

In addition, poor households have more limited access to healthcare. In the context of Myanmar, and relying on the latest MLCS (2017) and DHS (2015) data, Nikoloski, McGuire and Mossialos⁴² find that the poor are less likely to have access to healthcare, and, moreover, once they do use healthcare, the poor are more likely to suffer the so-called ‘catastrophic healthcare expenditures’ pushing them deeper into poverty⁴³. Poor people are more vulnerable to this downward spiral as they are more prone to disease and have more limited access to health care and social insurance⁴⁴.

In addition to the general, robust link between poverty, access to healthcare and health outcomes, there is a significant literature that has emerged, focusing specifically on the link between poverty, access to child related

healthcare services and child health outcomes. There is a growing consensus that poverty and low socioeconomic status are associated with higher risk of death in infancy and childhood, chronic childhood illness, and many acute illnesses⁴⁵. In addition, the existing literature finds a robust link between poverty and access to child related healthcare services. Some of the healthcare services that have been studied included: access to antenatal care and skilled assistance during birth⁴⁶, immunization⁴⁷, or regular use of insecticide-treated nets for the prevention of malaria⁴⁸. Finally, healthcare seeking for the two most common childhood illnesses (diarrhoea and pneumonia) remains significantly pro-rich, particularly in low and lower middle income countries⁴⁹.

The rising poverty levels could, thus, impact upon both access and utilization of healthcare. The available evidence from the People’s Pulse (and previously the Household Vulnerability Survey) suggest that, indeed, there are problems accessing healthcare facilities, which are further compounded by the ongoing concerns over security and public transport.

Attitudes towards accessing health services have got dramatically worse since the coup. Figure 8 shows that in 2020 (during the beginning of the second wave of COVID-19) 26.9 percent of households reported that access to health services had got worse in the last month. This rose greatly, to 60.6 percent, following the coup.

40 Myanmar DHS 2015.

41 OECD (2003) “Poverty and health”.

42 Their paper titled “Evaluating Myanmar’s UHC progress on national and sub-national level” is forthcoming in Plos Medicine later in 2021.

43 Catastrophic out of pocket expenses means HHs having to cut down on normal expenses by 40%. Impoverishing OOP expenses is more directly related to being pushed back into poverty.

44 OECD (2003) “Poverty and health”.

45 https://www.researchgate.net/profile/Nicholas-Spencer-9/publication/10588896_Social_Economic_and_Political_Determinants_of_Child_Health/links/5a2129c40f7e9b4d19283a27/Social-Economic-and-Political-Determinants-of-Child-Health.pdf

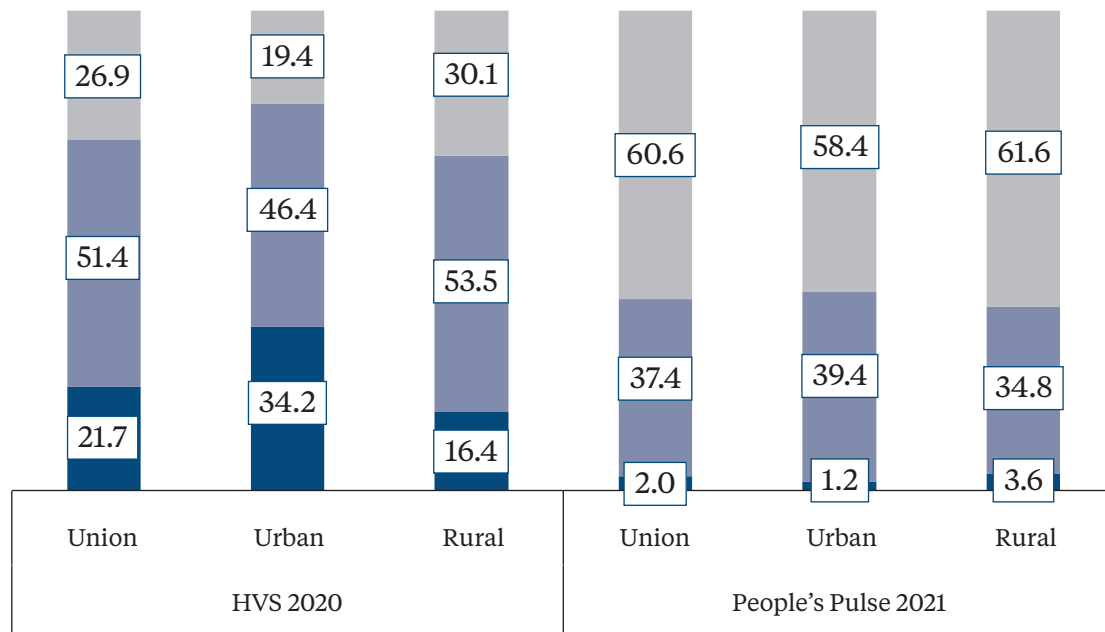
46 <https://pubmed.ncbi.nlm.nih.gov/11128415/>

47 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2393147/>

48 <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-3156.1996.tb00019.x>

49 <https://ajph.aphapublications.org/doi/pdfplus/10.2105/AJPH.94.5.726>

Figure 8: Opinion about accessing health services in the last month (percentage of households surveyed)



Source People's Pulse 2021

As in the education sector, the health sector has suffered staff shortages as a result of the junta's repression⁵⁰. For example, many government doctors from Yangon and Mandalay (and other areas in Myanmar) have been charged by the junta for their support of the civil disobedience. In addition, there is anecdotal evidence of

doctors being dismissed from their posts, being arrested or hiding in fear for their lives⁵¹. It could be said that, faced with the double threat of a global health crisis and military coup, the healthcare system of Myanmar is close to collapsing.

“ Attitudes towards accessing health services have got dramatically worse since the coup. **26.9 percent of households** reported that access to health services had got worse in the last month of 2020 (during the beginning of the second wave of COVID-19). This rose greatly, to **60.6 percent**, following the coup. ”

50 <https://militaryhealth.bmj.com/content/jramc/early/2021/05/21/bmj-military-2021-001871.full.pdf>

51 <https://militaryhealth.bmj.com/content/jramc/early/2021/05/21/bmj-military-2021-001871.full.pdf>

Conclusions

05

The compounding of crises continued with the military takeover, which came at a time when Myanmar was beginning to project a post-pandemic recovery. In this policy brief, which updates the results from an earlier paper, we find that the double crisis will indeed, reduce incomes thus further worsening the rising poverty levels during the COVID-19 pandemic. Moreover, we also suggest that the effects of the double crisis will go further than the immediate effect on household welfare, with significant negative and long-term effect on the human capital of the next generation.

While child poverty is likely to remain high (with about a half of children living in poverty in case the political crisis is protracted), in this paper we also confirm the notion that urban poverty is likely to rise by about threefold, mostly as a result of the negative impact of the double crisis on small, non-farm businesses. When considering the subnational (i.e. state/region level) there are two additional findings that stem from this work (in addition to the findings in the initial research paper). First, states/regions that were poorest before the pandemic and before the coup are likely to remain in the bottom of the table. Second and more importantly, poverty is likely to increase by a higher margin in urban states/regions (e.g. Yangon or Mandalay) where

most of the small, non-farm businesses are located. It's also important to note that at the time of doing the analysis/writing this policy brief, the third COVID-19 wave was in full swing in Myanmar. As the third COVID-19 wave is still unfolding and its effects are going to be felt for the weeks and months to come, poverty indicators may be worse still.

However, there are broader implications of these crises that resonate beyond rising poverty rates. Preliminary evidence on the ground is already showing that the crises will have profound effects, effectively undoing many of the human development achievements Myanmar has made in the past decade and threatens progress – however imperfect that progress has been – on all the Sustainable Development Goals. The recent events also bring into question further realisation of the so-called ‘demographic dividend’, i.e., the growth potential of a large and young labour force, particularly in the case of reversals in human capital development.⁵² As outlined in this brief, the rising poverty levels will negatively impact upon access to services essential for human capital building (e.g. nutrition, health and education), thus further deteriorating the overall human capital stock and putting in peril Myanmar’s developmental progress.

52 <http://documents1.worldbank.org/curated/en/867951479745020851/pdf/WPS7893.pdf>

Figure A1: Total number of poor people by state/region due to the compounded effect (Covid-19 and military takeover)

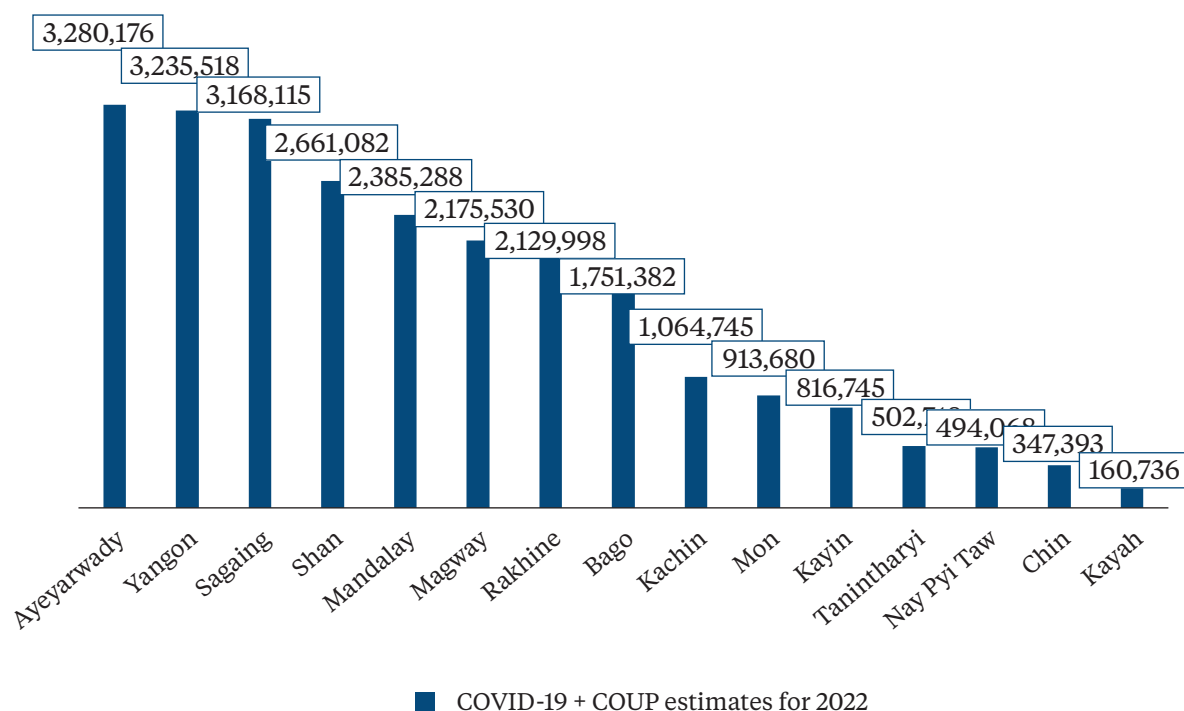


Table A2: Total amount of money (in social transfers) needed (per day and per year) to bring the poor above the poverty line, per state and region, in million USD

	per day	per year
Chin	0.13	48.06
Kachin	0.41	151.40
Magway	0.88	322.97
Rakhine	0.72	262.31
Tanintharyi	0.31	114.23
Sagaing	1.18	429.96
Ayeyarwady	1.16	424.20
Yangon	1.38	505.51
Kayin	0.29	104.92
Kayah	0.05	19.41
Mon	0.33	121.09
Mandalay	0.98	358.77
Shan	0.92	335.71
Nay Pyi Taw	0.17	63.57
Bago	0.62	226.86
Total	9.56	3488.98

Technical Appendix

06

Impact of COVID-19

To estimate the impact of the loss of income on poverty, we used a ‘bottom-up’ approach to draw on a range of sources and expert advice to identify which sources of income and which sectors are most likely to be affected by the pandemic. These sources include previously published materials by the Institute for Fiscal Studies (2020),⁵³ a note prepared by the UNDP staff in Myanmar (UNDP 2020)⁵⁴ as well as a note prepared by the Brookings Institution (2021).⁵⁵ The main assumptions about income used in the analysis were as follows (while the earlier publication UNDP, 2021, has a detailed account of the assumptions used in the exercise):

- First, we assumed that wages are most likely to be affected in construction, retail, and certain manufacturing sectors.
- Second, in assessing the loss of wages we applied a scenario of a six-month lockdown, i.e., wages completely affected during the lockdown and affected by 50 percent for the remaining of the year due to economic slowdown.
- Agricultural production is expected to drop by 8.4 percent. This number is taken from HVS 2020 and corresponds to the share of respondents that have left their farm fallow.

- Based on recent estimates by the World Bank (2020)⁵⁶, we estimate a drop in remittances of 20 percent applied on the annual remittance inflows.
- Finally, some households received funds from the government, if they didn’t have any regular source of income. Therefore, it has been assumed that all households living below the international poverty line (USD 1.90 per person per day) received 40,000 kyats. This is a blanket assumption to simplify the calculation to account for the receipt of support by some households. As a result, the estimates do not fully capture distributional aspects.

However, there are broader implications of these crises that resonate beyond rising poverty rates. Preliminary evidence on the ground is already showing that the crises will have profound effects, effectively undoing many of the human development achievements Myanmar has made in the past decade and threatens progress – however imperfect that progress has been – on all the Sustainable Development Goals. The recent events also bring into question further realisation of the so-called ‘demographic dividend’, i.e., the growth potential of a large

53 [https://www.ifs.org.uk/publications/14791#:~:text=The%20list%20of%20sectors%20classified,7990\)%3B%20childcare%20\(8510%2C%208891](https://www.ifs.org.uk/publications/14791#:~:text=The%20list%20of%20sectors%20classified,7990)%3B%20childcare%20(8510%2C%208891)

54 UNDP (2020) “Socio economic impact of COVID 19 in Myanmar”, mimeo

55 <https://www.brookings.edu/blog/future-development/2020/12/01/myanmars-response-to-the-covid-19-pandemic/>

56 <https://www.worldbank.org/en/news/press-release/2020/04/22/world-bank-predicts-sharpest-decline-of-remittances-in-recent-history>

and young labour force, particularly in the case of reversals in human capital development.⁵² As outlined in this brief, the rising poverty levels will negatively impact upon access to services essential for human capital building (e.g. nutrition, health and education), thus further deteriorating the overall human capital stock and putting in peril Myanmar's developmental progress.

Table A1 outlines a full set of assumptions about the losses of other incomes.

Table A2 provides a snapshot of available international literature on consumption smoothing and is used as an auxiliary tool in estimating the consumption-smoothing parameters employed in the analysis. Based on the available evidence and bearing in mind the coping mechanisms as reported by HVS 2020, the two parameters used in the analysis are 0.2 and 0.35, corresponding to a lower and upper bound of consumption reduction. More specifically, in this exercise, a unit loss of income was associated with 0.2 unit (lower bound) and 0.35 unit (upper bound) loss of consumption. The newly derived consumption aggregate was then used to calculate the lower/upper bound of the new poverty rates.

It is important to note that we base our analysis on MLCS 2017 income and poverty aggregates as this is the last time when welfare was assessed in Myanmar. In that respect, our approach differs to the one adopted by the World Bank, where the income and consumption aggregates are 'scaled up' to 2019 level, using assumptions on the impact of economic growth on welfare. There are a few reasons why we base our analysis on MLCS: (i) first, we believe that is more robust to apply our assumptions to collected data, rather than data modified by assumptions; (ii) second, the two years period (2018 and 2019) is not long enough to produce significant changes on the overall welfare/poverty in the country;

(iii) scaling up the incomes and consumption aggregates also requires additional analysis of consumption/saving patterns, particularly for households closer to the poverty line; (iv) it also requires constructing a new poverty line. Thus, given this set of unknowns, we opted for basing our analysis on the MLCS 2017 data.

Compounded effect of COVID-19 and coup d'état

When assessing the impact of the political crisis/coup d'état, methodologically, a similar approach to the one above was adopted. The new income aggregate (derived after taking into account the effect of COVID-19) was used as a new baseline in order to estimate the effect of the crisis on poverty rates. To that, additional losses of income were added due to the ongoing situation on the ground and the potential impact of sanctions. The income losses associated with the political crisis/coup d'état are enumerated in the main part of the paper.

As in the case of examining the impact of COVID-19, it is important to examine how this additional income loss translates to reduced consumption. Unlike COVID-19, in the case of the coup, the crisis might be more permanent, in which case, the set of parameters used for the COVID-19 impact might not be applicable. In the case of a perceived permanent crisis, the households' behaviour might be more closely aligned with the permanent income hypothesis where households change their consumption pattern in a one-for-one manner (i.e., each kyat loss of income is associated with equivalent loss of consumption). In order to support this hypothesis, a review of the permanent income hypothesis literature was undertaken (**Table A3**).

Table A1: Impact of COVID-19: Approach and Assumptions

Source of income	Affected sector	COVID-19 assumption
Wages (remuneration to workers)	201 (agriculture, forestry, fishing), 203 (manufacture of food products, beverages and tobacco products), 204 (garment manufacturing), 218 (electricity, gas and other energy supply), 220 (construction), 223 (retail trade), 224 (transportation and storage), 226 (food service activities), 225 (accommodation), 231 (real estate activities), 238 (arts, entertainment) and 240 (activities of households as employers)	One assumption, based on the available documents from Brookings Institution (2021): six-month lockdown with wages completely affected during the lockdown period and partially affected (50%) for the rest of the year.
Non-farm business income (Income from non-agricultural self-employment and business ownership)	201 (agriculture, forestry, fishing), 203 (manufacture of food products, beverages and tobacco products), 204 (garment manufacturing), 218 (electricity, gas and other energy supply), 220 (construction), 223 (retail trade), 224 (transportation and storage), 226 (food service activities), 225 (accommodation), 231 (real estate activities), 238 (arts, entertainment) and 240 (activities of households as employers)	One assumption, based on the available documents from Brookings Institution (2021): six-month lockdown with wages completely affected during the lockdown period and partially affected (50%) for the rest of the year.
Remittances (money received from non-household members)		20% reduction on the annual level as per the latest estimates from the World Bank (2020).
Crops/agriculture/aqua production (income from: crop production and forestry, livestock rearing, fishing and other aquaculture)		Drop of 8.4% based on the findings from HVS 2020.
Other income (land rent, public transfers and social assistance)		Not affected.

Table A2: Literature review on income shocks and consumption smoothing

	Author	Dataset(s)	Research questions/ methodology	Findings
1	Gruber (1997)	1968-1987 PSID	Impact of unemployment as unanticipated and anticipated income shock on consumption	For unanticipated layoffs UI had a large smoothing effect. A 10% rise in the replacement rate reduced the fall in consumption upon unemployment by about 3%
2	Browning & Crossley (2001)	1993 Canadian Out of Employment Panel (COEP)	Impact of unemployment as income shock on consumption exploiting legislative changes to Canadian UI system	Elasticity of expenditure with respect to UI benefit was 5%. Elasticities were as high as 20% for low-asset individuals (consistent with the presence of liquidity constraints)
3	Stephens (2001)	1968-92 PSID	Impact of job displacement and disability as permanent income shocks on consumption	The percentage change in consumption was less than that of income, especially at the time of the shock. Displaced households responded to an increase in the probability of job losses by reducing consumption prior to a job loss.
4	Gertler & Gruber (2003)	1991, 1993 panel data collected as part of Indonesian Resource mobilization study	Impact of illness as income shocks on consumption in developing countries	An income shock results with 0.35 units decrease in consumption for each unit decrease in income. People smoothed well the effect of minor illnesses (could be interpreted as a transitory shock) but less the effect of major illnesses (which could be interpreted as permanent shock)
5	Agarwal and Qian (2004)	panel data on consumer financial transactions	Consumption and Debt Response to Unanticipated Income Shocks:	Consumers that have low liquid assets or with low credit card limit reduce consumption significantly in a wake of an unanticipated income shock.
6	Skoufias and Quisuming (2005)	Household panel data from Bangladesh, Ethiopia, Mali, Mexico and Russia	Impact of shocks on consumption and poverty	All the case studies show that food consumption is better insured than non-food consumption from idiosyncratic shocks. Adjustments in non-food consumption appear to act as a mechanism for partially insuring ex-post food consumption from the effects of income changes.

	Author	Dataset(s)	Research questions/ methodology	Findings
7	Dercon et al. (2005)	data for 15 Ethiopian villages for the period between 1999-2004	The authors examine the impact of various types of shocks on consumption	The authors find that drought and illness related income changes decrease per capita consumption of households by about 20% and 9% respectively. The impact of these shocks is persistent, having an impact on consumption level despite having occurred 2-5 years previously.
8	Yang and Choi (2007)	data on linked household surveys from the Philippines	The use of remittances as a buffer to income shocks	Roughly 60 percent of declines in household income are replaced by remittance inflows from overseas. Consumption in households with migrant members is unchanged in response to income shocks, whereas consumption responds strongly to income shocks in households without migrants.
9	Chen et al (2013)	UHIES from 1992-2003	Impact of income changes on consumption patterns	In the first half of the 1990s, a 1% change in income associated with 0.6% change in consumption. In the second part of the 1990s, households' ability to insure consumption increased. When faced with a shock, households first cut down durable goods consumption to insure the consumption of the non-durables.
10	Bruckner and Gradstein (2013)	Panel of 39 SSA countries for the period 1980-2009.	Effects of Transitory Shocks to Aggregate Output on Consumption in Poor Countries	The authors' estimates yield a marginal propensity to consume out of transitory output of around 0.2.
11	Cui and Huang (2017)	household survey in rural China	Food expenditure responses to income/ expenditure shocks in rural China	Large negative income shocks result with 25-30% of reduction in food expenditure. Moreover, food expenditures among low-income households are much more sensitive to large negative income shocks.

Table A3: Literature review on Permanent Income hypothesis

	Author	Dataset(s)	Research questions/ methodology	Findings
1	Cashin and Unayama (2016)	Japanese Family Income and Expenditure Survey (JFIES)	Increase in the VAT in Japan as an unanticipated shock. Natural experiment set up.	Consumption fell in proportion to the income shock upon announcement, giving salience to permanent income hypothesis.
2	Kruger and Perri (2012)	Italian Survey of Household Income and Wealth from 1987 to 2008	Impact of income shocks (wages) vs. shocks on assets (e.g., house prices and businesses).	Wealth shocks have a much more profound and more lasting effect on household consumption than income wage shocks.
3	Japelli and Pistaferri (2020)	Italian Surveys of Household Income and Wealth (SHIW)	Impact of permanent shocks on household consumption. The authors rely on a IV (instrumental variable) methodological approach.	The authors find that households indeed revise approximately one-for-one their target wealth in response to permanent income shocks.
4	Cho et al (2019)	PSID and HILDA - panel household budget surveys for US and Australia	The authors examine the response of households to permanent income shock, depending on their socio-economic standing and level of debt.	Households with debt have higher sensitivity to shocks (be it transitory or permanent). In both countries, better off households better safeguard their consumption during period of income shocks.
5	Ludwig (2015)	PSID	Impact of permanent and transitory income shocks on consumption of households across the income spectrum.	The poorer the households are, the more similarly they react to the two types of shocks examined (permanent and transitory).
6	Mckenzie (2006)	ENIGH surveys for Mexico before and after the peso crisis from 1994	The author examines the reasons behind the drop in semi-durables consumption during and after the crisis.	The explanation offered is such that households perceived the shock as permanent, hence further adjusting down their consumption patterns.

Poverty measures used in this paper

Poverty headcount: This is the share of the population that is poor, i.e. the proportion of the population for whom consumption per equivalent adult y is less than the poverty line z . Suppose we have a population of size n in which q people are poor. The poverty headcount is:

$$H = \frac{q}{n}$$

Poverty gap: The poverty gap, which is often considered as representing the depth of poverty, is the mean distance separating the population from the poverty line, with the non-poor being given a distance of zero. The poverty gap is a measure of the poverty deficit of the entire population, where the notion of “poverty deficit” captures the resources that would be needed to lift all the poor out of poverty through perfectly targeted cash transfers. It is defined as follows:

$$PG = \frac{1}{n} \sum_{i=1}^q \left[\frac{z - y_i}{z} \right]$$

where y_i is the consumption of household i , and the sum is taken only on those households that are poor (with appropriate weights). The poverty gap can be written as being equal to the product of the consumption (or income when that metric is used) gap ratio and the headcount index of poverty, where the consumption (or income) gap ratio is itself defined as:

$$PG = I * H, \text{ with}$$

$$I = \frac{z - y_q}{z} \quad \text{where} \quad y_q = \frac{1}{q} \sum_{i=1}^q y_i \quad \text{is the average consumption of the poor.}$$



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