COVID-19, COUP D'ETAT AND POVERTY

Compounding Negative Shocks and Their Impact on Human Development in Myanmar

April 2021

Contents

Executive Summary

Myanmar, a least developed country, has made significant achievements in poverty reduction over the last decade. A historical triple transition that began in 2011—towards peace, democracy, and a market-oriented economy—enabled Myanmar to move forward. Economic reforms and trade deregulations that followed resulted in rapid growth and contributed to a significant reduction in poverty rates. In 2017, Myanmar had a poverty rate of 24.8 percent (using the national poverty line as the benchmark), down from 48.2 percent in 2005.

Despite improvements in well-being, vulnerabilities have remained. One third of the population was already subsisting on low levels of consumption that put them at risk of falling into poverty. Moreover, a significant share of household income was precarious, mainly generated from small and informal business activities. In view of this context, any negative shock and lack of appropriate coping mechanisms could easily push these households below the poverty line and eventually lead to lasting setbacks in achieving the Sustainable Development Goals (SDGs).

Reduced incomes and minimal coping mechanisms among vulnerable households, in the wake of the COVID-19 pandemic, have set the stage for an estimated increase in the poverty rate from 6 to potentially 11 percentage points, by the end of 2020. The Household Vulnerability Survey (2020) shows that containment measures have been particularly harmful to small-scale, family-owned businesses, further increasing the vulnerability of the households owning them. More than four-fifths (83.3 percent) of households have reported a drop in income since the beginning of 2020. Evidence also pointed to disruptions across sectors and reduced remittances due to global and regional lockdowns.

The ongoing political crisis will, doubtless, further compound the socioeconomic impact of the pandemic, reducing incomes. In the worst-case scenario, nearly half of the population of Myanmar (48.2 percent) will live in poverty (compared to the 24.8 percent in 2017), reversing gains made since 2005. If the situation on the ground persists, the poverty rate could double by the beginning of 2022. By then, the shock from the crisis will have resulted in significant losses of wages and income, particularly from small businesses, and a drop in access to food, basic services and social protection. One year into the pandemic, the country faced a further shock on 1 February 2021, as the Myanmar military staged a *coup d'état* to overthrow the democratically elected government. The takeover paved the way for violent military and police crackdowns against protesters. Within a period of two months, more than 700 people are reported to have been killed and thousands detained. Moreover, the economy is facing significant risks of a collapse; in the East Asia and Pacific Economic Update (April 2021), the World Bank projected an economic contraction of 10 percent in 2021 due to a combination of substantial employment and income losses, government relief not matching earning losses, stimulus not offsetting output shortfalls and public investment not being accelerated and scaled up.[1] Recent media reports have highlighted a range of stress points emerging concurrently and stifling economic activities, including a virtual standstill in banking operations since 1 February, which has adversely impacted business operations and credit. Furthermore, around 80 percent of Myanmar's trade is seaborne and UNDP estimates that the trade volume in ports has dropped by between 55 and 64 percent in the two months following the military takeover, due to delays in government clearance, logistical disruptions on account of political unrest and shipping lines temporarily suspending work,

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[1] https://www.worldbank.org/en/region/eap/publication/uneven-recovery-east-asia-and-pacific-economic-update-april-2021

amongst other factors.[2] All these reports indicate that Myanmar is approaching the point of economic collapse.

Factoring in duration and severity, two scenarios (optimistic and pessimistic) were developed to project the effects of the *coup*, depending on the impact of the unfolding situation on household incomes. Unlike with COVID-19, where the shock is assumed to be temporary in nature, in both scenarios associated with the takeover we assumed a protracted downward shift in consumption patterns. The pessimistic scenario would see poverty rates almost doubling compared to the Myanmar Living Conditions Survey 2017 poverty baseline—a regression to where the country was in 2005.

Women and children are expected to bear the heaviest brunt of the combined impact of COVID-19 and the political crisis. The effects of COVID-19, amplified by the effects of the overthrow of the civilian government, are likely to lead to a disproportionate increase in urban poverty. This is related to the fact that urban areas, where most of the income-generating activities of the near poor are, have been ground zero for the pandemic and the focus of the most severe crackdowns. Child poverty is expected to remain high, with more than half of children living in poverty in the pessimistic scenario. This will further exacerbate the intergenerational transmission of poverty, which, coupled with potential school closures, may have a devastating impact on the human capital of the next generation. Finally, the compounded shock is particularly likely to affect women (with female-headed households more likely to be poor at the outset). This is largely due to the types and sectors of female employment in Myanmar. This amplification of the pre-existing vulnerabilities will undoubtedly have significant impacts on household income and well-being, and on access to and benefits gained from social services, particularly in health and education.

While these estimates provide an initial understanding of the socioeconomic impact of the compounding shocks, they are not static and need to be monitored regularly given the rapidly evolving situation on the ground. UNDP will be further examining the data, assumptions and final estimates presented here. As we point out in this paper, given the rapidly evolving circumstances, the estimates might need to be adjusted, particularly if the situation further deteriorates. To further monitor and adjust the estimates, UNDP plans to undertake periodic data collection (using 'pulse surveys' and a set of industry indicators, to the extent feasible) to inform and update this work.

What is clear is that, given the present trends, based on the data and evidence available at this time, Myanmar is at risk of losing over a decade of hard-won gains in the fight against poverty, and is seeing a slide in human development that may not be reversible in the SDG timeframe. Without rapid corrective actions on economic, social, political and human rights protection policies, these scenarios will put Myanmar's efforts to achieve the Sustainable Development Goals by 2030 well out of reach.

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[2] https://www.spglobal.com/platts/en/market-insights/latest-news/agriculture/031621-feature-myanmar-protests-reduce-imports-as-shipping-lines-suspend-operations

United Nations positions on the situation in Myanmar

The United Nations (UN) Secretary-General (SG) has condemned "the continuing brutal violence by the military in Myanmar." In recent statements the UN SG has reiterated that he continues to stand with the people of Myanmar and their aspirations to achieve a peaceful, stable and prosperous Myanmar[1].

The UN Security Council has reaffirmed its support for the people of Myanmar and its strong commitment to the sovereignty, political independence, territorial integrity and unity of the country[2].

The UN Security Council in two consecutive statements (from the 4th of February and 10th of March 2021) has stated its continued support for the democratic transition in Myanmar and stressed the need to uphold democratic institutions and processes. The Council has strongly condemned the violence, against peaceful protestors, including against women, youth and children.

In addition, the UN has expressed its support to regional organizations, in particular the Association of Southeast Asian Nations (ASEAN) and its readiness to assist Myanmar in a positive, peaceful and constructive manner[3].

The UN Secretary-General has also called for "a firm, unified international response" and "to end violations of fundamental human rights and return to the path of democracy."[4] His call was reiterated in a statement from the UN High Commissioner for Human Rights [5].

The Special Envoy for Myanmar appointed by the Secretary-General, Christine Schraner Burgener, has briefed the General Assembly and the Security Council, and communicated a series of statements strongly condemning the events following 1 February 2021. At the time of writing, she is in the region where she is meeting with key interlocutors and pursuing efforts to promote an effective international response and a unified regional effort. She remains ready to visit Myanmar at the earliest opportunity[6].

I. A vulnerable path to progress

Beginning in 2011, Myanmar undertook a journey of triple transitions: towards peace in the border areas; a move to democratic governance; and establishing a nascent market-oriented economy.[3]

The ensuing economic reforms and trade deregulation resulted in rapid growth at an annual average of 7 percent, among the fastest in the East Asia-Pacific region and globally. The acceleration in GDP growth was followed by a significant reduction in poverty rates, from 48.2 percent in 2005 to 24.8 percent in 2017.[4] Using the international poverty line (IPL) of USD 3.20 (typical for lower middle-income countries, Myanmar Living Conditions Survey / MLCS 2017),

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[3] https://www.undp.org/content/undp/en/home/librarypage/democratic-governance/conflict-prevention/do-fragile-and-conflict-affected-countries-prioritise-core-gover.html
[4] http://documents1.worldbank.org/curated/en/151001580754918086/pdf/Myanmar-Living-Conditions-Survey-2017-Socio-Economic-Report.pdf

Myanmar performed similarly to other countries in the region. In 2019, Myanmar registered a per capita GDP of USD 5,142 in PPP terms.[5]

The Myanmar Living Conditions Survey 2017 suggests that there are a few notable characteristics of poverty in Myanmar. First, poverty has a pronounced rural/urban dimension with the number of poor people being 6.7 times higher in rural than in urban areas. Also, poverty rates differ significantly by state/region with poverty most prevalent in Chin and Rakhine States and lowest in the regions of Tanintharyi, Mandalay and Yangon. While the use of financial services is limited across Myanmar, it is particularly low among poor households. Less than a fifth of households have a bank account, and while borrowing activity is high, most loans are taken from informal sources. Moreover, lower human well-being is associated with a lower likelihood of having the liquidity or savings to cope with negative income shocks, forcing many poor and vulnerable households to seek loans from informal sources often with usurious rates of interest and without room for legal recourse.[6]

Despite the achievements in poverty reduction, analyses of available data prior to the COVID-19 pandemic show that millions of people in Myanmar had remained vulnerable and at risk of falling into poverty in the face of a negative shock. Such vulnerabilities could create further challenges in poverty eradication efforts and lead to setbacks in achieving the Sustainable Development Goals (SDGs).

- In 2017, many households were living marginally above the poverty line and remained vulnerable to falling below it.[7] More specifically, about a third of the total population in Myanmar (32.9 percent) were considered as near poor in 2017.[8]
- Because poor households were more likely to have a higher median share of food expenditures, an exogenous shock could prompt them into reducing food consumption as a coping mechanism.
- In turn, such a perilous coping mechanism could have devastating consequences on current household health as well as the health and capabilities of the next generation, given that poverty rates in Myanmar are higher among households with children (MLCS 2017). The resulting loss in quality of human capital is expected to be significant.
- In 2017, agriculture and related activities remained the main source of employment. About four-fifths of the poor were engaged in agricultural activities, and a higher share of the poor's income (more than a quarter) was generated from the agricultural sector (MLCS 2017). Poverty among these households is strongly linked to low incomes generated from a sector that is highly seasonal and exposed to adverse weather conditions, in addition to being largely informal and hence providing very few work contracts and benefits such as paid leave, enforceable labour rights or access to social insurance.
- While income from non-farm businesses represented a significant share of household income, particularly for those living above the poverty line, this income-generating activity is precarious. As indicated by the MLCS 2017, non-farm businesses in Myanmar range from a single-person enterprise to a large company with hired employees, though many remained small and informal. As of 2017, only 14.1 percent of non-farm businesses were legally registered, further increasing the precariousness of employment of those working in this sector.

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[5] https://databank.worldbank.org/source/world-development-indicators
[6] http://documents1.worldbank.org/curated/en/151001580754918086/pdf/Myanmar-Living-Conditions-Survey-2017-Socio-Economic-Report.pdf
[7] The national poverty line in 2017 was 1,590 kyat per adult equivalent per day (in 2017 quarter 1 kyat). Those with consumption levels at or below 1,590 kyat per day are considered poor.
[8] A household is defined as non-poor but insecure if it has a consumption levels below 1.5 times the poverty line or less than 2,385 kyat per day (in 2017 quarter 1 kyat) per adult equivalent.

- Employment, a vehicle for emerging out of poverty, is particularly low among women. According to the MLCS 2017, women are 30 percent less likely than men to be in the labour force. Sociocultural norms, housework, and childcare present significant barriers for female labour force participation, hence exacerbating the vulnerability of women and women-headed households. And while many women who are not part of the labour force desire to work, they face limitations including of market-aligned skill levels and time to search for a job, thus further heightening the vulnerability of female-headed households.

- Although remittances did not represent a significant share of the aggregate household income (less than a tenth), they contributed significantly to the income of near poor households and provided a further boost to the income of non-poor households. Remittances are particularly sensitive to disturbances such as political, health or economic crises, so any event that could disturb their usual flow effectively increases the vulnerability of households that rely on them.[9]

II. COVID-19 makes its mark

Until August 2020, Myanmar had among the lowest coronavirus infection rates in the East Asia and Pacific region, although this may have been related to the modest testing facilities available. However, recorded cases began soaring towards the fourth quarter, possibly in part due to increased testing.[10]

By and large, the series of containment and mitigation measures enacted by the government since February 2020 managed to control the spread of the virus. However, they also led to disruptions in business operations. Retail shops as well as manufacturing firms suffered from widespread supply chain disruptions, bringing some areas of the economy and trade to a near halt. Moreover, by December 2020 over 420,000 migrants had returned from abroad.[11] Finally, the regional and global economic impact of COVID-19 has reduced the demand for Myanmar's exports, delivering a further knock-on effect on the economy.[12]

There are a few important findings that emerge from the Household Vulnerability Survey (HVS; 2020), both in terms of vulnerability to poverty and setbacks on the SDGs.[13]

- An overwhelming majority of households (83.3 percent) reported a drop in income, with an average year-on-year reduction of 46.5 percent between 2019 and 2020. A large share of households associated the decline with COVID-19-related restrictions.[14] While rural households and households with children were more likely to report loss of income, on average, urban households have seen the biggest drop in their income levels.[15]

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[9] https://assets.publishing.service.gov.uk/media/57a089ede5274a27b200031b/wp1413.pdf

[10] https://www.csis.org/programs/southeast-asia-program/southeast-asia-covid-19-tracker-0

[11] Data compiled by the CSO. Gathered from GAD and shown on www.mmsdd.org

[12] https://www.worldbank.org/en/news/press-release/2020/06/25/myanmars-economy-severely-impacted-by-covid-19-report

[13] To understand how COVID-19 impacted upon the pre-existing vulnerabilities, in 2020, UNDP and Myanmar's Central Statistical Organization of the Ministry of Planning, Finance and Industry conducted the Household Vulnerability Survey (HVS). A total of 2,016 households were interviewed by telephone during September and October 2020. All of these households had already participated in the Myanmar Living Conditions Survey (MLCS) 2017 and were interviewed for a second time to see how their situation had changed with restrictions due to COVID-19.

[14] This finding is similar to a recent study of ASEAN countries which finds that more than three quarters of households experienced reduced income in the wake of COVID-19. Moreover, among households with a declining income, most of them (33 percent) reported that their income had fallen by 26 to 50 percent; 23 percent reported that their income had declined by more than half, while only 16 percent experienced a slight decline of 1 to 25 percent. https://www.adb.org/sites/default/files/publication/688271/adbi-wp1226.pdf

[15] https://www.mm.undp.org/content/myanmar/en/home/library/poverty/household-vulnerability-survey-2020.html

- Non-farm household businesses (market sellers, hairdressers, and tailors) reported the largest drop in personal income. The ensuing economic slowdown has further exposed the precarious nature of employment in these types of businesses: while the average number of employees in these types of businesses before COVID-19 was four, during the pandemic, an average of two people had been laid off temporarily, and one person had faced a reduction in earnings.
- While farming has also been hit by COVID-19 restrictions, the effect has been somewhat lower as seasonal farming operations had been largely completed at the time of the pandemic outbreak. Hence, the reduction in farming income could be attributed to other factors. Nevertheless, COVID-19 exposed some of the existing vulnerabilities in the agricultural sector. Agricultural firms were the most likely to report cash flow shortages and diminished access to credit, revealing their greater vulnerability to economic crises.[16]
- Domestic remittances have also declined, as suggested by the lower number of households with a member working in a different state/region. In March 2020, 9.4 percent of poor households had a household member working in another state/region. By September/October 2020, that number had dropped to 6.8 percent.

III. Compounding shocks and their impacts on poverty in Myanmar

With the promise of an effective vaccination program in early 2021,[17] post-pandemic economic recovery seemed imminent. Projections by the IMF in the World Economic Outlook in January suggested Myanmar would soon return to an average of 6 to 7 percent annual growth rate.[18]

However, any hope for a post-pandemic recovery was derailed on 1 February 2021, when the Myanmar military took over; the effects of which continue to reverberate across the country at the time of writing of this report. The ongoing situation risks further lowering the living standards of people, at a rapidly accelerating rate, thus exacerbating pre-existing vulnerabilities in the country.

In view of the above context, the objective of this section is two-fold: (i) to refine our quantitative estimates of the effect of COVID-19 and its related measures on poverty rates in Myanmar and (ii) by building on the first set of findings, to estimate the poverty impact of the recent political crisis.

III.1. Differentiated socio-economic impact of COVID-19 on poverty in Myanmar

There are two approaches to assessing the impact of COVID-19 on poverty: 'bottom-up' and 'top-down'. The 'bottom-up' approach relies on available household survey data collected prior to (or during) the pandemic, while the 'top-down' approach uses macroeconomic tools (e.g., Computable Generalized Equilibrium models) to estimate the effects of a shock (such as COVID-19) on poverty rates. Given the richness of data collected both prior to and during the pandemic, in this analytical exercise we relied on the 'bottom-up' approach, basing our analytical exercise on the Myanmar Living Conditions Survey (2017) and using the Household Vulnerability Survey (2020) to further triangulate and validate our assumptions and estimates. (See **Technical Appendix** for a detailed account of the methodology and assumptions used in the analysis).

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[16] http://documents1.worldbank.org/curated/en/469971600767580031/pdf/Summary-of-Results-from-Second-Round.pdf

[17] The first shipment of vaccines arrived in Myanmar on the 22nd of January, 2021, in time for the government to launch its national vaccination program. https://www.csis.org/programs/southeast-asia-program/southeast-asia-covid-19-tracker-0

[18] https://www.imf.org/en/Publications/WEO

The following available evidence guided our analysis:

- Beginning in February 2020, various measures aimed at curtailing the spread of the coronavirus (e.g., social distancing, lockdowns) have been in place, albeit with varying intensity (see **Figure 1**). This implies that incomes in affected sectors would have suffered for at least half of the year, when the HVS was conducted.

Figure 1: COVID-19 Timeline in Myanmar

Key: **Blue** public health policies **Green** social and economic measures **Orange** health system response

Source: Brookings Institution (2020)

- HVS 2020 shows that these containment measures have been particularly harmful to small-scale, family-owned businesses, further increasing the vulnerability of the households owning them.
- Evidence gathered from consultations with formal businesses in the initial days of the pandemic suggested disruptions across sectors, due to the pandemic and the ensuing economic slowdown. Certain sectors were hit hard, such as wholesale and retail trade.[19]
- More than four-fifths (83.3 percent) of households have reported a drop in income since the beginning of the year. Nearly half (45.1 percent) were earning money from a family farm, which includes growing crops, forestry, raising livestock, fishing, and aquaculture. Almost four-fifths (79.4 percent) reported losing income from this activity since March 2020.
- Remittances from household members formerly working in other locations, which traditionally boost the incomes of many poor households, have also declined due to the global and regional enforcement of lockdowns.[20]

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[19] UNDP (2020) "Socio economic impact of COVID 19 in Myanmar", mimeo
[20] https://www.economist.com/international/2020/05/23/covid-19-is-undoing-years-of-progress-in-curbing-global-poverty
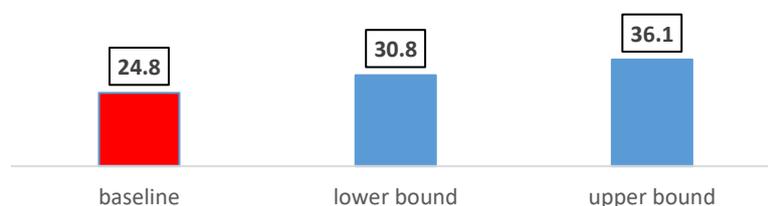
Ultimately, when applied to the baseline aggregate income from MLCS 2017, the interplay of the transmission mechanisms above results in an average household income loss of 40 percent.[21] (see **Technical Appendix** for further details and quantification of effects).

This loss of aggregate household income as a result of the COVID-19 pandemic has further exposed the effect of short-term shocks on pre-existing vulnerabilities. By relying on coping mechanisms such as savings and government cash transfers, vulnerable households could 'smoothen' their consumption in the event of a temporary shock, such as the COVID-19 pandemic. Without them, they risk slipping into poverty.

Existing evidence suggests vulnerable households in Myanmar had minimal recourse to government assistance. Such assistance was limited due to the underdeveloped nature of the social protection system in Myanmar, and as shown in **Figure 1**, mainly consisted of a one-time provision of 40,000 kyats to poor and vulnerable households without a regular source of income, food assistance, and reduction in electricity tariffs—some of which were unevenly distributed. This, in turn, forced many poor and vulnerable households to turn to more dangerous coping mechanisms such as informal borrowing, as confirmed by HVS 2020.

Drawing on the sources listed above and a literature review of international studies of responses to shocks and coping mechanisms, we applied a range of assumptions about reductions to different types of income and industries to the MLCS 2017 dataset to estimate the potential range of increase in poverty as a result of reduced household incomes in the wake of the pandemic (see **Technical Appendix** for further technical details of the analysis). The results of the exercise are captured in **Figure 2**, which suggests a potential increase in the poverty rate in Myanmar of at minimum 6 percentage points and up to as high as 11 percentage points due to the COVID-19 pandemic.

Figure 2: Impact of COVID-19 on the poverty rate in Myanmar (percent)[22]

Baseline = 24.8 percent, MLCS 2017
Lower bound = a one unit drop in income results in a 0.2 unit drop in consumption
Upper bound = a one unit drop in income results in a 0.35 unit drop in consumption

The increase in poverty rates as a result of reduced household income was assessed using the national poverty line. Given that the pandemic is far from over, and thus associated with heightened uncertainty, our analytical approach provides both a lower and upper bound of potential poverty increase owing to the pandemic.

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[21] This is further corroborated by results from HVS 2020, which suggest that household income has decreased by 46 percent.
[22] Given the methodological approach, the effect is envisaged to be felt by early 2021.

To provide a further discussion of our results, we have conducted a rapid review of the available socioeconomic assessment studies of COVID-19 across selected low and middle-income countries.[23] Several findings emerged from these studies.

- First, in using a 'bottom-up' approach to estimate the socioeconomic impact of COVID-19, our methodological approach is similar to that applied across various countries (e.g., Colombia and Fiji).

- Second, our estimated increase in poverty rates is comparable to what other studies have found. More importantly, even when the studies apply the so-called 'top-down approach' (e.g., the Computable General Equilibrium modelling used in the case of Afghanistan), the estimated spikes in poverty rates are within the same ballpark of roughly 10 percentage points.[24]

- Third, a recent World Bank estimate of global poverty increase as a result of COVID-19 suggested that the poverty rate in Myanmar would increase by 5.3 percentage points, when considering the poverty threshold of USD 5.50 USD per day (PPP).[25] Similarly, a micro-macro simulation model predicted an increase of about 10 percentage points in Myanmar's poverty rate due to COVID-19.[26]

- Finally, a small-scale study in Rakhine State found that the number of people in extreme poverty could increase by 10 percent because of COVID-19.[27]

Further investigation reveals that COVID-19 has indeed 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 COVID-19 meant that most of them were pushed below the poverty line. Disaggregated data from our analysis shows that, considering the maximum impact of COVID-19 on poverty, the urban poverty rate more than doubles (from 11.3 percent in 2017 to 25.9 percent with the COVID-19 shock). This is mostly due to two factors: (a) the heavy concentration of the pandemic in urban areas; and (b) precariousness of employment and earning of urban dwellers[28];

(ii) Even when considering the effect of COVID-19, child poverty in Myanmar remains higher than the overall poverty and it is expected to further increase.[29] This not only establishes intergenerational transmission of poverty as a persistent phenomenon in Myanmar; but confirms that the shocks associated with COVID-19 could keep a large part of a whole generation of children locked in a perpetual poverty trap;

(iii) The vulnerability of female-headed households has been previously well documented.[30] There are a few reasons why these households are more likely to slide sooner and faster below the poverty line. First, the rising poverty rates among female-headed households are a direct function of the types and sectors of female employment patterns in Myanmar, with

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[23] A complete list of available studies that assess the socio-economic effect of COVID-19 is available at https://www.undp.org/content/undp/en/home/coronavirus/socio-economic-impact-of-covid-19.html

[24] It is important to note that while there has been a significant reduction in household income in Myanmar due to COVID-19, this does not necessarily translate into an equivalent near-term reduction in consumption. There are a couple of reasons for this: (i) the effects are felt differently across the socio-economic spectrum; and (ii) people have a different 'arsenal' of coping mechanisms (e.g., savings, borrowing) which allows some of them to 'smooth' their consumption for some time.

[25] https://www.worldbank.org/en/news/press-release/2020/10/07/covid-19-to-add-as-many-as-150-million-extreme-poor-by-2021

[26] http://documents1.worldbank.org/curated/en/906171608086222905/pdf/Myanmar-Economic-Monitor-Coping-with-COVID-19.pdf

[27] https://www.undp.org/content/undp/en/home/coronavirus/socio-economic-impact-of-covid-19.html

[28] https://www.cebm.net/covid-19/what-impacts-are-emerging-from-covid-19-for-urban-futures/

[29] https://www.unicef.org/myanmar/reports/overcoming-child-poverty-myanmar

[30] https://www.researchgate.net/publication/322172667_Household_shocks_and_coping_mechanism_evidence_from_Sub-Saharan_Africa

women employed in sectors that were directly affected by COVID-19.[31] Second, preliminary global evidence suggests that women disproportionally bear the burden of household chores associated with COVID-19 (e.g., caring for the sick, home schooling of children), which forces many of them to drop out of the labour market.[32] This pattern is also evidenced anecdotally in Myanmar. 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.

The negative effects of the COVID-19 are likely to have a significant impact on the country's progress on many of the SDGs. First, as evidenced by the MLCS, the poor are much more likely to be associated with excessive spending on healthcare.[33] The predicted poverty increases, as detailed in this note, could further escalate the impoverishing effect of seeking healthcare, or, in the worst-case scenario, may lead to complete forgoing of healthcare, that may not be reversible in the SDG time frame. Second, even if schools can stay open, rising poverty rates are associated with lower school enrolment of children. This is particularly so for higher education levels, which are costlier. Mounting poverty rates are often associated with further negative coping mechanisms such as removing children from school, temporarily or for longer periods of time. This, in turn, could lower the human capital quality and stock of the next generation with lasting adverse economic effects, and further amplify pandemic-related school closures and disruptions that many students have had to endure.[34]

III.2. Potential scenarios of the *coup* and their varying impacts on poverty in Myanmar

As shown in the previous section, the COVID-19 pandemic has exposed some of the pre-existing vulnerabilities in terms of employment and income-generating activities to the detriment of poor and vulnerable households. Moreover, it had also stretched the already limited capacity of the social protection system in Myanmar to help those particularly at risk of falling into poverty, or back into poverty, in the event of a negative shock.

Just as Myanmar was gearing up to turn the corner and leave the bleakness of 2020 behind, it was struck by a military overthrow of the democratically elected government on 1 February 2021. In two months, the conflict has claimed over 700 lives and impacted the safety and well-being of many more.[35] The current situation has thereby compounded the effects of COVID-19, and halted the pandemic response and recovery plans geared to building back better and stronger. This risks further exacerbating households' vulnerability to poverty and pushing hundreds of thousands of households under the poverty line. The Economist reports that the closure of banks has, thus far, had a huge effect in that it is impossible to conduct back-office functions, including payroll and interbank transfers which are further hampered by internet disruptions.[36] Moreover, the current situation on the ground has affected other parts of the economy as well. Supply chains are breaking down as the work of customs agents, dockworkers, lorry drivers and rail workers has come to a halt and with key ports paralysed, some shipping firms have temporarily stopped services to the

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[31] https://www.ilo.org/yangon/press/WCMS_672754/lang--en/index.htm

[32] https://www.undp.org/content/undp/en/home/coronavirus/socio-economic-impact-of-covid-19.html

[33] http://documents1.worldbank.org/curated/en/151001580754918086/pdf/Myanmar-Living-Conditions-Survey-2017-Socio-Economic-Report.pdf

[34] https://en.unesco.org/news/unesco-figures-show-two-thirds-academic-year-lost-average-worldwide-due-covid-19-school

[35] https://aappb.org/

[36] https://www.economist.com/leaders/2021/04/15/myanmar-could-be-asias-next-failed-state

country[37]. Furthermore, goods exports are likely to plunge by more than 60 percent this financial year, according to Fitch Solutions.[38] Finally, evidence from UN World Food Programme (WFP) points to rising food prices, which may further affect the purchasing capacity of households.[39] Overall, Myanmar is on the brink of economic collapse and risks becoming Asia's next failed state.

To estimate the effect of the takeover on poverty, we followed a similar methodological approach as in the case of estimating the impact of COVID-19 (see **Technical Appendix** for further details). This analysis was done on MLCS 2017 data, and in addition to income losses associated with COVID-19, we also considered income losses due to the political crisis. By doing this, we effectively consider the compounded socioeconomic impact of the double shock (COVID-19 and government overthrow). More specifically, we assumed additional losses of income due to the following factors. First, the worsening security situation on the ground could have a significant impact on the biggest components of the household income (e.g., small businesses closed, and wage earners deprived of income because of security risks or participation in the Civil Disobedience Movement). Some anecdotal evidence already points to significant losses that small businesses have had to endure, and to trade, banking and supply chain disruptions[40] that have brought the economy to a virtual standstill.[41] Second, the worsening situation is already taking its toll on agriculture, particularly as the depreciation of the kyat translates into higher prices for inputs, particularly those imported.[42] Lack of access to credit through the Myanmar Agriculture Development Bank and micro-finance companies is turning into a significant obstacle. The micro-finance institutions are facing constraints due to payment defaults and solvency issues, and pause on any further investments into Myanmar by investors will impact the already affected agricultural sector.[43] As in the case of wages and businesses, the impact on agriculture could be higher still, if the worsening security situation leads to transport disruptions and hence constrains the movement of labour and goods. The rest of the incomes are expected to suffer as well. Remittances are taking a significant hit and are likely to fall further, including due to industrial slowdowns, impact on businesses, and disruptions in the banking system.[44] Finally, social transfers are also likely to be somewhat affected due to ongoing disruptions in the financial system.[45] For a full set of assumptions used in the analysis, refer to the **Technical Appendix**.

As the situation on the ground is constantly evolving and has already claimed many lives at the time of writing, we developed two scenarios: optimistic and pessimistic (details are presented in the **Technical Appendix**). The main difference in the two scenarios is the extent to which the biggest contributors to the household budget (wages and business incomes) are affected by the evolving situation. While in the optimistic scenario most of the wages and business incomes are assumed to be affected by another 25 percent loss on top of COVID-19,[46] in the pessimistic scenario wages and business incomes are expected to be affected by 50 percent. In both cases,

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[37] https://www.economist.com/asia/2021/04/15/myanmar-is-on-the-brink-of-collapse
[38] https://www.fitchsolutions.com/topic/myanmar
[39]
https://analytics.wfp.org/t/Public/views/MarketMonitoringDashboard/StateDashboard?%3AisGuestRedirectFromVizportal=y&%3Aembed=y
[40] https://www.frontiermyanmar.net/en/nothing-is-moving-cdm-freezes-foreign-trade-raising-fears-of-shortages/
[41] https://www.businesslive.co.za/bd/world/asia/2021-04-12-myanmars-small-businesses-battle-on-front-lines-as-economy-goes-into-free-fall/
[42] https://www.fas.usda.gov/data/burma-impact-burma-military-coup-agriculture-sector-and-trade
[43] Based on interviews with MFIs in Myanmar carried out between 10-14 April 2021
[44] https://www.reuters.com/article/myanmar-migrant-economy-idUSL8N2KU0K9
[45] 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.
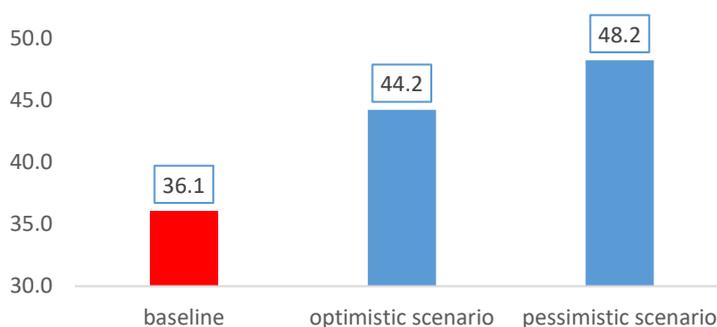[46] For a handful of sectors (e.g., finance, mining) the effect is expected to be 50 percent due to the possibility of sector-wide, 'selective' sanctions.

agricultural incomes would take a 10-percent hit. Furthermore, other incomes (e.g., remittances and social transfers) would also suffer an additional 10 percent due to disruptions in the financial sector and/or processing payments. In any case, the bulk of the impact of the takeover would lead to disruptions in the two principal sources of earned income: individual wages and business incomes.

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 factors: (a) duration of the compounded shock and how fast things go back to normal; and (b) the magnitude of the shock and, ultimately, how people cope with it. Unlike the case of COVID-19 where the shock was assumed to be temporary, the effect of the shock associated with the overthrow of the civilian government 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 shock might be more difficult in this scenario, resulting in a permanent downward shift in consumption patterns (see **Technical Appendix** for further details).

In both scenarios (optimistic and pessimistic), as in the case of COVID-19, we used the national poverty line and the newly calculated consumption aggregates to compute poverty rates which would take into account the effect of the *coup*. Moreover, we used the upper bound on the impact of COVID-19 as a baseline. The results of this analytical exercise are presented in **Figure 3**. In the optimistic scenario, the takeover is likely to result in a poverty rate of 44.2 percent (effectively an increase of about 8 percentage points relative to the COVID-19 baseline). More starkly, however, the poverty rate jumps to 48.2 percent in the pessimistic scenario, which means that nearly half of the population in Myanmar would be impoverished if we consider the combined effect of the two shocks. Effectively, the compounded effect of the shock would result in an almost doubling of the MLCS 2017 poverty rate (24.8 percent). In other words, this would mean that, in the worst-case scenario, there will be another 12-percentage increase in poverty rate on top of the upper bound (36.1 percent) of poverty rise due to COVID-19. Given the methodological approach, we are assuming that the effects will materialize within a year, i.e., by early 2022, if the current situation persists.

Figure 3: The compounded effect of the *coup* on the poverty rate in Myanmar (percent)[47]

Baseline = 36.1 (upper bound of poverty increase as a result of COVID-19)
Permanent income shock = a one unit drop in income results in a one unit drop in consumption

As in the case of the impact of COVID-19, a few important findings emerge when further digging beneath the surface. First, urban poverty is expected to further increase (more than threefold compared to the MLCS 2017 baseline). In the pessimistic scenario over half of children (52.3 percent) would be living in poverty, further exacerbating the already high child poverty in the

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[47] Given the methodological approach, the effect is envisaged to be felt by early 2022.

country.[48] Furthermore, female-headed households will become even more vulnerable to the effect of the political crisis. The latter not only threatens to reverse the progress made over the past decade to ensure that women in Myanmar have more opportunities, power, and influence in society but also increases the risks of gender-based violence becoming more prevalent.[49] As in the case of COVID-19, here as well, the increasing vulnerabilities to poverty further hinder access to basic services, which are severely affected.[50] This in turn could result in significant setbacks in terms of attaining the SDGs.

IV. Limitations to this study

As in many research endeavours that are conducted in such uncertainty and ongoing conflict, there are clear limitations associated with this effort. First, we are using an additive approach in estimating the effect of both COVID-19 and the overthrow of the civilian regime which might result in a lower-bound estimate of the total impact. Second, in estimating the effect of COVID-19 we rely on a few assumptions. While this is an obvious limitation, data from the HVS allowed us to use assumptions which are as closely related to reality as possible. Third, the consumption-smoothing parameters are taken from a review of the broader literature with an additional assumption that, given the coping mechanisms used by households in Myanmar, the consumption-smoothing will follow similar patterns as those suggested by the international literature. Fourth, the effects considered in this paper are short-term effects. Thus, if the lockdowns and the current development, democratization and human rights crises extend much further, the higher end of the estimates may well be exceeded. Fifth, given the evolving situation on the ground, the estimates presented here are a first attempt at quantifying the socioeconomic impact of the compounded shocks. Real-time data is currently hard to obtain. However, assumptions and estimates in this report will be further strengthened by upcoming data collection efforts, and further modelling and analytical exercises. Finally, economic, health and political crises affect people differently, and more vulnerable groups of people are more likely to suffer. This is particularly relevant for Internally Displaced People (IDPs), ethnic minorities, and in particular, the Rohingyas. However, given the currently limited data, we are not able to provide an accurate picture of the impact of COVID-19 and the takeover on these specific groups at this time.

V. Conclusions

The analysis presented in this paper takes stock of pre-existing vulnerabilities (particularly vulnerability to poverty) in Myanmar and attempts to quantify the socioeconomic impacts of the compounded negative shocks of COVID-19 and the ongoing *coup d'état*.

Myanmar saw significant progress – imperfect and uneven– in poverty reduction, with poverty rates halved between 2005 and 2017. Despite this, substantial vulnerabilities remained as one third of the population in Myanmar were considered as near poor in 2017. Given a weak social protection system, and heavy reliance on precarious household earnings, a significant part of the

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[48] UNICEF has stated the 'longer-term consequences of the crisis on children could be "catastrophic," as delivery of critical services for children, including key vaccines and vitamin supplements, has ground to a halt in the impoverished country. https://www.washingtonpost.com/world/asia_pacific/myanmar-military-deaths-children/2021/03/29/1d7a6e70-9066-11eb-aadc-af78701a30ca_story.html

[49] https://foreignpolicy.com/2021/03/23/myanmar-coup-women-human-rights-violence-military/

[50] https://www.economist.com/briefing/2021/02/06/myanmars-coup-turns-the-clock-back-a-decade

population remained susceptible to sliding below the poverty line in the event of an exogenous shock.

The first such shock came in early 2020, as the COVID-19 pandemic reached Myanmar, quickly exposing and exacerbating pre-existing vulnerabilities. Using the MLCS 2017 as baseline data, HVS 2020 as available evidence, and the international literature as an auxiliary tool, our calculations pointed to an increase in poverty rates of at minimum 6 percentage points to as high as 11 percentage points, by the beginning of 2021. While this is mostly due to the pandemic shock itself, it could also be partly attributed to the inability of the social protection system in Myanmar to adopt more appropriate systemic and near-universal measures that are particularly geared towards the large parts of the population who are highly vulnerable.

The compounding of negative shocks continued with the military takeover, which came at a time when Myanmar was beginning to project a post-pandemic recovery. This paper finds that it has further compounded the effects of the COVID-19 pandemic, reducing incomes and increasing poverty rates across the country. Not all groups are affected equally. In particular, the poor and the near poor are likely to be more affected. This is exacerbated by the gender gap; disparities faced by minority, displaced and stateless populations; and the digital divide; all of which must be further studied and the differentiated impacts on the different subgroups understood, interrogated and acknowledged.

While child poverty is likely to remain high (with more than half of children living in poverty in case the political shock is protracted), there are two additional findings that our research sheds light on. First, the effect of COVID-19, when amplified by the effect of the government overthrow, could particularly increase urban poverty. This is related to the fact that urban areas, with high concentration of the near poor, have been hit hardest by COVID-19. More importantly, we find a 'feminisation' of poverty in that female-headed households are more likely to be poor due to the combined impacts from COVID-19 and the takeover. As discussed in this paper, this is not only due to the types and sectors of female employment in Myanmar, but also because of the disproportionate burden of unpaid domestic work imposed on women, which in many instances has forced them to leave their jobs.

However, there are broader implications of these shocks that resonate beyond rising poverty rates. Preliminary evidence on the ground is already showing that the shocks 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.[51] Finally, the current developments may further exacerbate the ongoing humanitarian challenges in parts of the country. In order to provide further robustness to the results presented in this report, and to offer additional evidence on the broader impact of the crisis on the Sustainable Development Goals, the UNDP plans to soon conduct further data collection exercises and identify a set of industry indicators.

As a dire and complex situation unfolds - characterized not only in humanitarian terms but also as a deep crisis in development, democratization, and human rights - and circumstances worsen, international support will play an important role in safeguarding the well-being of the Myanmar population. Already weakened by COVID-19 and further exacerbated by the ongoing situation on the ground, the country risks seeing the SDGs pushed out-of-reach and a complete reversal of human development gains made over the last decade.

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[51] http://documents1.worldbank.org/curated/en/867951479745020851/pdf/WPS7893.pdf

Technical Appendix

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),[52] a note prepared by the UNDP staff in Myanmar (UNDP 2020)[53] as well as a note prepared by the Brookings Institution (2021).[54] The main assumptions about income used in the analysis were as follows:

- First, we assumed that wages are most likely to be affected in construction, retail, and certain manufacturing branches.
- 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)[55], 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 results do not fully capture distributional aspects.

Table A1. Impact of COVID-19: Approach and Assumptions outlines a full set of assumptions about the losses of other incomes.

Table A2. Literature review on income shocks and consumption smoothing 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.

When assessing the impact of the political crisis, methodologically, a similar approach 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.

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

[53] UNDP (2020) "Socio economic impact of COVID 19 in Myanmar", mimeo

[54] https://www.brookings.edu/blog/future-development/2020/12/01/myanmars-response-to-the-covid-19-pandemic/

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

Table A3. Sequential shock - Impact of the Military captures the assumptions used in this part of the analysis. First, based on available documents, it was estimated which sectors are most likely to suffer from potential sanctions and slowdown of economic activity (e.g., finance or mining). In doing that, it was assumed that wages and business income in these sectors would drop by a half on an annual basis. For the remaining sectors, it was assumed that wages and business incomes would suffer by 25 percent. This is the optimistic scenario. In the pessimistic scenario, all of wages and business incomes are likely to be affected by a half on an annual basis. In both case scenarios, we also assume a loss in agricultural income of 10%, due to some of the challenges that agricultural producers face. Finally, given the disruptions in the financial sector and the ongoing civil disobedience, remittances and social transfers are likely to suffer by another 10%.

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 shock 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 shock, 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 literature was undertaken (**Table A4.** Literature review on Permanent Income hypothesis).

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.

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. Sequential shock - Impact of the Military Takeover
(e.g., worsening security situation, potential trade sanctions): Approach and Assumptions

Source of income	Affected sector	Military takeover Assumption
Wages (remuneration to workers)	202 (mining and quarrying), 203 (manufacture of food products, beverages and tobacco products), 204 (garment manufacturing), 211 (manufacturing of basic metals), 221 (trade), 223 (retail trade), 224 (transportation and storage), 225 (accommodation), 230 (financial and insurance activities), 231 (real estate activities)	We assume two scenarios. In the optimistic scenario, wages and business incomes in the affected sectors would drop by a half on annual basis. This could be due to two factors: increase in the security situation on the ground and, the sectors could be affected by targeted and/or selective sanctions which will further affect income-generating activities. For the rest of the sectors, wages and business incomes would suffer by 25%. In the pessimistic scenario, we assume that all wages will be affected by 50%.
Non-farm business income (Income from non-agricultural self-employment and business ownership)	202 (mining and quarrying), 203 (manufacture of food products, beverages and tobacco products), 204 (garment manufacturing), 211 (manufacturing of basic metals), 221 (trade), 223 (retail trade), 224 (transportation and storage), 225 (accommodation), 230 (financial and insurance activities), 231 (real estate activities)	We assume two scenarios. In the optimistic scenario, wages and business incomes in the affected sectors would drop by a half on annual basis. This could be due to two factors: increase in the security situation on the ground and, the sectors could be affected by targeted and/or selective sanctions which will further affect income generating activities in these sectors. For the rest of the sectors, wages and business incomes would suffer by 25%. In the pessimistic scenario, we assume that all wages will be affected by 50%.
Remittances (money received from non-household members)	Affected somewhat due to the problems with the banking sector in Myanmar.	We assume that remittances will be affected by 10% given the ongoing disruptions of the banking sector in the country.

Crops/agriculture/aqua production (income from: crop production and forestry, livestock rearing, fishing and other aquaculture)	Affected somewhat due to challenges that farmers experience.	10% reduction in these incomes due to the ongoing challenges that farmers face (e.g., access to fertilizer, potential exporting problems etc). This could be compounded by credit constraints that the sector is facing, given anecdotal evidence.
Social transfers	Affected somewhat due to the ongoing civil disobedience and disruption in executing of some of the social transfers.	10% reduction due to the ongoing civil disobedience which will impact upon the disbursement of some of these transfers

Table A4. 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 the 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.