

MYANMAR  
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JAN 2022

**CONTENDING  
WITH CONSTRAINTS**

**MYANMAR ECONOMIC MONITOR  
CONTENDING WITH CONSTRAINTS**

**Special focus: Digital Disruptions and Economic Impacts**

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## Preface and Acknowledgements

The Myanmar Economic Monitor (MEM) is published semiannually and is a product of the World Bank's Myanmar office. This edition was prepared by a team led by Kim Alan Edwards (Program Leader and Senior Economist) and included Thi Da Myint (Country Economist), Faya Hayati (Senior Economist), and Aka Kyaw Min Maw (Consultant). It was developed under the guidance of Sebastian Eckhardt (Practice Manager, Macroeconomics, Trade, and Investment) and Mariam J. Sherman (Country Director).

The team is grateful for the close collaboration and inputs provided by Ildrim Valley (Public Sector Management Specialist); Pike Pike Aye (Public Sector Management Specialist); Thanapat Reungsri (Consultant); Smita Wagh (Senior Financial Sector Specialist), Radu Tatacu (Senior Financial Sector Specialist); Nang Htay Htay (Financial Sector Specialist), Mio Takada (Senior Agriculture Economist); Mekbib Haile (Agriculture Economist); Mateo Ambrosio (Consultant); Wendy Karamba (Economist); Kimsun Tong (Economist); Paul Jacob Robyn (Senior Health Specialist); Nang Mo Kham (Senior Health Specialist); Minn Thu (Consultant); Myoe Myint (Senior Energy Specialist); Joonkyung Seong (Senior Energy Specialist), Hongye Fan (Transport Specialist), Myint Kyaw (Operations Officer), Sadig Aliyev (Program Leader); Win Htein Lin (Consultant); and Ergys Islamaj (Senior Economist).

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## Abbreviations

ACLEED	Armed Conflict Location and Event Data Project
CBM	Central Bank of Myanmar
CDM	civil disobedience movement
CIT	Corporate Income Tax
CMP	Cut-Make-Pack
CPI	Consumer Price Index
DICA	Directorate of Investment and Company Administration
DNS	Domain Name System
FAO	Food and Agricultural Organization
FDI	foreign direct investment
FY	Fiscal year
GDP	Gross Domestic Product
GNI	Gross National Income
ICT	Information and Communication Technology
IFPRI	International Food Policy Research Institute
LTO	Large Taxpayers Office
MAU	Market Analysis Unit
MEM	Myanmar Economic Monitor
MESC	Mandalay Electric Supply Corporation
MFI	Microfinance Institution
MGTC	Moattama Gas Transportation Company
MLCS	Myanmar Living Conditions Survey
MMK	Myanmar kyat
MOALI	Ministry of Agriculture, Livestock and Irrigation
MOC	Ministry of Commerce
MOEE	Ministry of Electricity and Energy
MOGE	Myanmar Oil and Gas Enterprise
MPT	Myanmar Post and Telecommunication
NPL	Non Performing Loan
IODA	Outage and Detection Analysis
PIT	Personal Income Tax
PMI	Purchasing Managers' Index
ROA	Return on Asset
ROE	Return on Equity
SEE	State Economic Enterprise
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UN OCHA	United Nations Office for the Coordination of Humanitarian Affairs
USDA	United States Department of Agriculture
WFP	World Food Programme
YESC	Yangon Electric Supply Corporation
yoy	year-on-year



## Executive Summary

Myanmar's economy continues to be severely tested by the ongoing impacts of the military coup and the surge in COVID-19 cases in 2021. While some real-time indicators have improved in recent months, they remain consistent with a much lower level of economic activity than prior to the February coup. Reported COVID-19 cases have fallen to low levels (and few reported cases of the Omicron variant as of early January 2022), while real time indicators of mobility, manufacturing activity, and exports are showing signs of recovering. On the other hand, indicators of conflict suggest that the security environment has deteriorated in many parts of Myanmar, including in states and regions which have historically been relatively peaceful. This has affected businesses' operations, logistics, confidence, and appetite to invest. After the sharp decline in incomes and employment observed across the economy, available indicators suggest domestic demand remains very weak. At the same time, supply-side constraints persist and some have worsened in recent months. Access to kyat liquidity, credit, and foreign currency remains severely constrained. A sharp exchange rate depreciation in September 2021 has raised import prices across the economy, including of fuel and other critical inputs to production, increasing transport costs. Electricity outages are a growing concern and internet disruptions continue to reduce the reliability of firms' and households' connectivity and ability to access information and connect with markets (see Part III: Digital Disruptions and Economic Impacts).

Despite these constraints, there have been some recent signs of economic stabilization. Mobility has recovered to pre-coup levels after falling 70 percent below pre-COVID-19 baseline levels in July, though it remains about 30 percent below pre-COVID-19 levels for retail, recreation and transport venues. Recent manufacturing survey data indicate that the rate of contraction in the sector has continued to ease since July, with output and employment now stabilizing, albeit at low levels. Both agriculture and manufacturing exports have recovered in recent months. Some border crossings with China have reopened although cross-border trade remains subject to restrictions. Foreign direct investment (FDI) commitments have risen modestly, as has the number of company registrations.

But overall economic activity remains constrained by substantial weaknesses in both supply and demand. Firms continue to report sharp reductions in sales and profits, cashflow shortages, and disruptions in the supply of inputs and in access to banking and internet services. The latest results from a survey conducted in October 2021 indicate that 80 percent of firms experienced a decline in sales since January 2021, with an average reported sales decline of 59 percent. Consumer demand is likely to have remained particularly weak due to elevated security concerns and the cumulative impacts of the coup and COVID-19 shocks on incomes and employment. Around half of all firms experienced disruptions in the supply of inputs and raw materials, largely because of increases in costs amid logistics constraints and the sharp exchange rate depreciation in September. As a result of these ongoing constraints on both demand and supply, firms reported operating at only 57 percent of their capacity, a further decrease from the 63 percent reported in June 2021. Around half of the firms surveyed in October have reported suspending planned investment and business expansion since February 2021.

After a relatively slow and steady depreciation in the months following the February coup, the kyat exchange rate depreciated sharply in September, and then subsequently stabilized. However, as of mid-January the reference rate remained 5 percent lower against the USD than at the end of August, and 25 percent lower than a year earlier. The divergence between the official reference rate and rates available on the market has increased, reflecting persistent exchange rate pressures. Both US dollars and physical kyat currency remain in short supply, though some banks have eased conditions on kyat withdrawals. Prices have increased, with year-ended inflation at 7.3 percent as of September 2021. Fuel prices doubled from January levels at their peak in October, before

easing. Sharp rises in the prices of fertilizer and other agricultural inputs have led to a reduction in the use of these inputs and in overall planting acreage.

The dual shocks have had marked implications for public finances, leading to a steep revenue decline, inhibiting spending execution, and increasing financing needs despite fewer available financing sources. Over the 9 months to June 2021, revenue and expenditure outturns were only around half of the full-year budget projections. Tax collection is estimated to have dropped to 4.5 percent of GDP in FY21, down from 6.9 percent a year earlier. Despite weakness in public spending, the expectation of a very low revenue outturn implies that the deficit for FY21 is projected to have reached 8.8 percent of GDP, above the 6.6 percent deficit in FY20 and significantly above the fiscal anchor of 5.0 percent of GDP.

This economic and fiscal deterioration will continue to be hugely damaging to livelihoods, which for many have been under severe strain since early 2020. The number of employed people in Myanmar is expected to have fallen by around 1 million since February 2021, with many more expected to have been forced to move to lower quality and less remunerative work. Other workers will have retained their jobs but experienced a decline in their incomes due to reduced hours or wages. This will have substantial effects on poverty, vulnerability, and food security. The share of Myanmar's population living in poverty is expected to have more than doubled compared to levels before COVID-19 hit. Inflation and credit/liquidity constraints will further compound food security risks, particularly for the poor who rely on limited savings. With the price of some basic food items rising sharply, and agricultural production constrained, UN OCHA has estimated that some 12 million people (about 22 percent of the population) are moderately food insecure in Myanmar, with an additional 1.2 million severely food insecure. At a time of increased need, basic public services have also become less accessible, due to lower funding flows, shortages of personnel (due in part to participation in the Civil Disobedience Movement), and lower trust in these services among the general public. While schools officially reopened in November, reports indicate that attendance of both students and teachers remains very low.

Following the estimated 18 percent contraction in FY2021 (year ended September), GDP is projected to increase by 1 percent in the year ended September 2022, consistent with some stabilization but at a very low level (Figure ES1). In the near-term, the outlook will depend on the impact of new wave(s) of COVID-19, the extent and effects of conflict, and the degree to which foreign exchange and financial sector disruptions persist, together with other disruptions such as to electricity, logistics and internet services. Our baseline forecast assumes that the emerging signs of stabilization in the manufacturing and services sectors continue through most of this period, and that the impacts of conflict on economic activity do not escalate substantially further from what has been observed in recent months. Growth in the industrial sector is forecast to be strongest, at just over 3 percent, with continued export demand for garments and natural gas supporting overall activity, together with some recovery in construction. The services sector is expected to grow marginally, while remaining constrained by weak domestic demand and financial constraints, while the agriculture sector is expected to see a further contraction, with lower output in coming months in part a function of planting and growing decisions taken in FY2021. Overall, growth of 1 percent in FY2022, coming on top of the 18 percent contraction expected for FY2021, would mean the economy is around 15 percent smaller than 2019 levels and 30 percent smaller than it would have been in the absence of the coup and COVID-19 shocks (Figure ES2).

Figure ES 1: Real GDP growth and contributions to real growth by sector

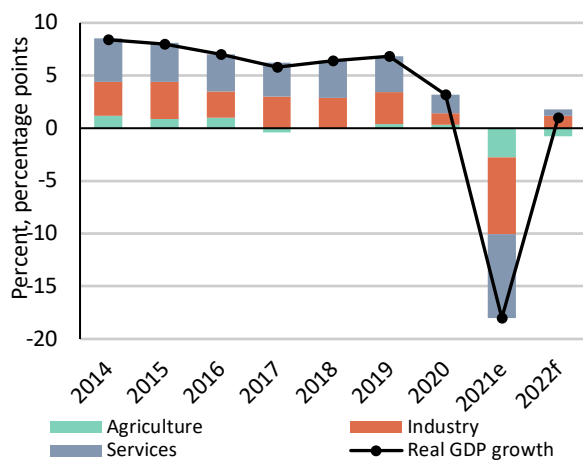
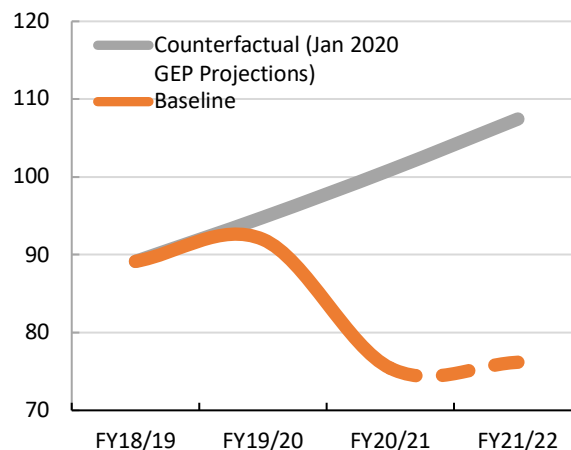


Figure ES 2: Real GDP (trillion of kyats)



Source: Ministry of Planning and Finance, and World Bank staff estimates

There are substantial risks around these projections for FY2022 (in addition to significant uncertainty around outcomes in FY2021). Two particularly significant risks are those of a further outbreak of COVID-19, and of a further deterioration in conflict.

While reported COVID-19 cases have declined to low levels as of early January, Myanmar is highly vulnerable to the Omicron variant and further waves of COVID-19. This is due to very low vaccination rates and severe weakness in public health capacity, as demonstrated by the response to the mid-2021 surge in cases. Vaccination rates remain very low largely due to ongoing supply issues around the availability and distribution of vaccines. All else equal, this will increase the severity of the health impacts of any renewed surge of COVID-19 cases and make it more difficult to manage. At the same time, the regional experience and current Myanmar-specific projections both indicate that Omicron cases are likely to rise significantly in the coming months. The baseline forecast accounts for modelling which suggests that Omicron case numbers are likely to be higher than for the third wave (and to peak in around late February), but the death rate and the burden on the hospital system substantially lower. Nevertheless, the impacts on lives, livelihoods and economic activity have the potential to be much worse than what is assumed under this baseline projection, either because Omicron hits harder than expected (including in the context of low vaccination rates), or because the economy is subject to further waves of the pandemic and/or new variants later in the year.

Recent trends in conflict are also concerning, most obviously from a humanitarian perspective but also in terms of the potential impacts on economic activity. While the baseline projection assumes that the incidence of conflict remains at current levels rather than escalating further, the recent increase in conflict-related incidents suggests that the downside risks associated with escalating conflict in the coming months are large. Conflict, insecurity and internal displacement are already having severe impacts on the lives and livelihoods of people across the country. Conflict acts to exacerbate income declines, price increases, and economic constraints faced by the broader population, particularly those living in rural areas who are dependent on the agriculture sector for their livelihoods. This is in addition to the direct impacts of conflict on security, freedom of movement, and the accessibility of critical services. The household-level impacts of recent shocks are therefore likely to be

particularly severe in those areas where conflict is greatest. The compounding of welfare challenges will mean that poor and vulnerable people living in these areas – whose coping mechanisms were already severely strained even prior to 2021 – are likely to be forced into deeper destitution. At the same time, firm surveys suggest that demand, logistics and supply chains have been most heavily impacted in those states and regions most affected by conflict. Firms have needed to devote scarce resources to dealing with security-related operating constraints and ensuring the safety of their staff and customers, with the prevailing uncertainty making it very difficult to commit to hiring staff or investing.

Over the longer term, recent events will weigh on Myanmar's longer-term growth potential. Most indicators suggest that private investment has fallen markedly, and some previously viable projects (including in the power sector) are becoming unviable as demand remains weak, the cost of imported inputs has risen, while kyat-denominated revenues are worth less in foreign currency terms. Lost months of education will have substantial longer-term impacts on human capital and productive capacity. There are reports of an increase in extractive sector activity, including logging and mining of jade, gold, and rare earths, all of which create substantial environmental risks with large longer-term costs.

There is also increased evidence that a more interventionist and inward-looking approach is being taken to economic management more generally. Activities previously viewed as not viable (state-owned steel factories, oil refineries) have been encouraged to restart. There have been further announcements of import restrictions, including via increased license requirements, and measures to encourage import substitution (e.g. of palm oil). While these have been imposed in an effort to alleviate foreign exchange pressures and boost domestic activity, such measures have failed in the past and tend to divert resources from their most efficient use, while depriving Myanmar of the increased openness that has been a key driver of Myanmar's growth spurt over much of the last decade.

Similarly, while internet restrictions have been eased compared with the period immediately following the coup, more recent months have seen the imposition of increased taxes and charges on telecommunications activity, ad hoc restrictions on access, and the implementation of a much more interventionist approach to internet use. To the extent such measures persist, this could have significant longer-term impacts on the growth of digital infrastructure and digitally enabled services in Myanmar, and carry significant economic costs in the form of reduced productivity and output. Recent trends and prospects for the digital economy are discussed in Part III of this report.

## I. Recent Economic Developments

### A. Ongoing constraints; rising conflict and COVID-19 risks

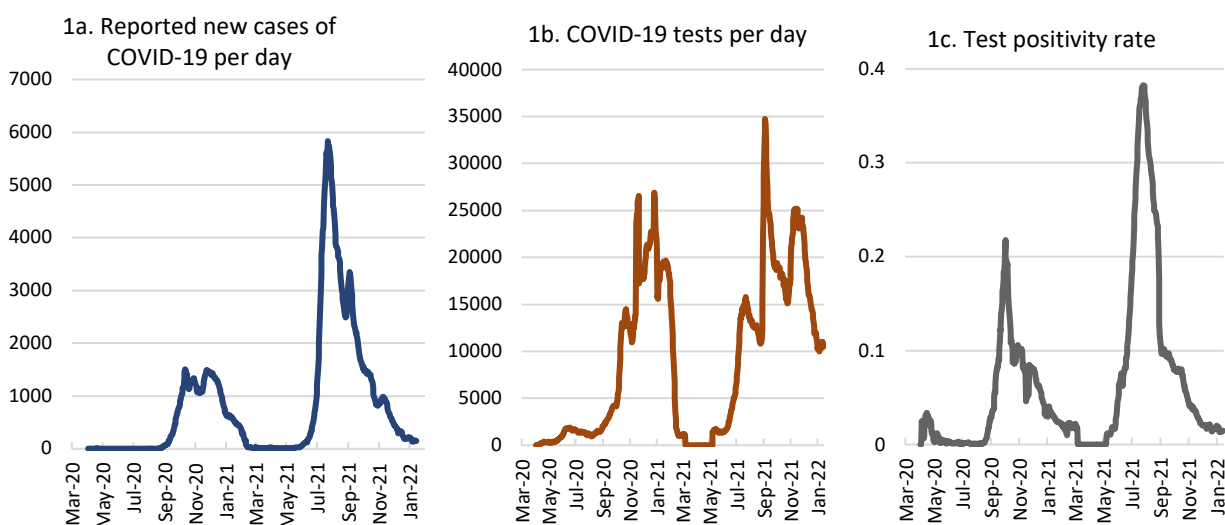
**Despite some signs of stabilization, Myanmar's economy continues to be severely tested by the ongoing impacts of the military coup and the surge in COVID-19 cases.**

**While some real-time indicators suggest stabilization in recent months, these remain consistent with a much lower level of economic activity than was the case prior to the February coup.** Reported COVID-19 cases have fallen to low levels (with few reported cases of the Omicron variant as at the end of 2021), while real time indicators of mobility, manufacturing activity, and exports are recovering. But both supply and demand remain heavily constrained. The security environment has deteriorated in many parts of Myanmar, including in states and regions which have historically been relatively peaceful. This has affected businesses' operations, logistics, confidence, and appetite to invest. Domestic demand has weakened following the sharp decline in incomes and employment across the economy. On the other hand, supply-side constraints also persist and some have worsened in recent months. Access to kyat liquidity, credit, and foreign currency remains limited. The sharp exchange rate depreciation observed in September 2021 has raised import prices across the economy, including of fuel and other critical inputs to production, increasing transport costs. Electricity outages are a growing concern and internet disruptions continue to reduce the reliability of firms' and households' connectivity and ability to access information and connect with markets (see also Part III: Digital Disruptions and Economic Impacts).

**COVID-19 positivity rates have declined since July and containment measures were eased, with mobility rising in response.**

**The number of reported COVID-19 cases and deaths has decreased since the end of July.** Daily cases have fallen from around 5,000 per day at the end of July to 150 per day (Figure 1) during the first week of January 2022. Test positivity rates have declined to around 1 percent after peaking at over a third in July. On December 28, the first four cases of the Omicron variant in Myanmar were detected by the Ministry of Health and an additional 110 cases have been reported in January 2022, all of which were imported. However, the reliability of data remains uncertain, and anecdotal reports suggest that COVID-19 transmission could be higher in some rural areas, particularly near the border with India, which is facing a significant surge in Omicron cases in the areas close to Myanmar.

Figure 1: COVID-19 cases and tests

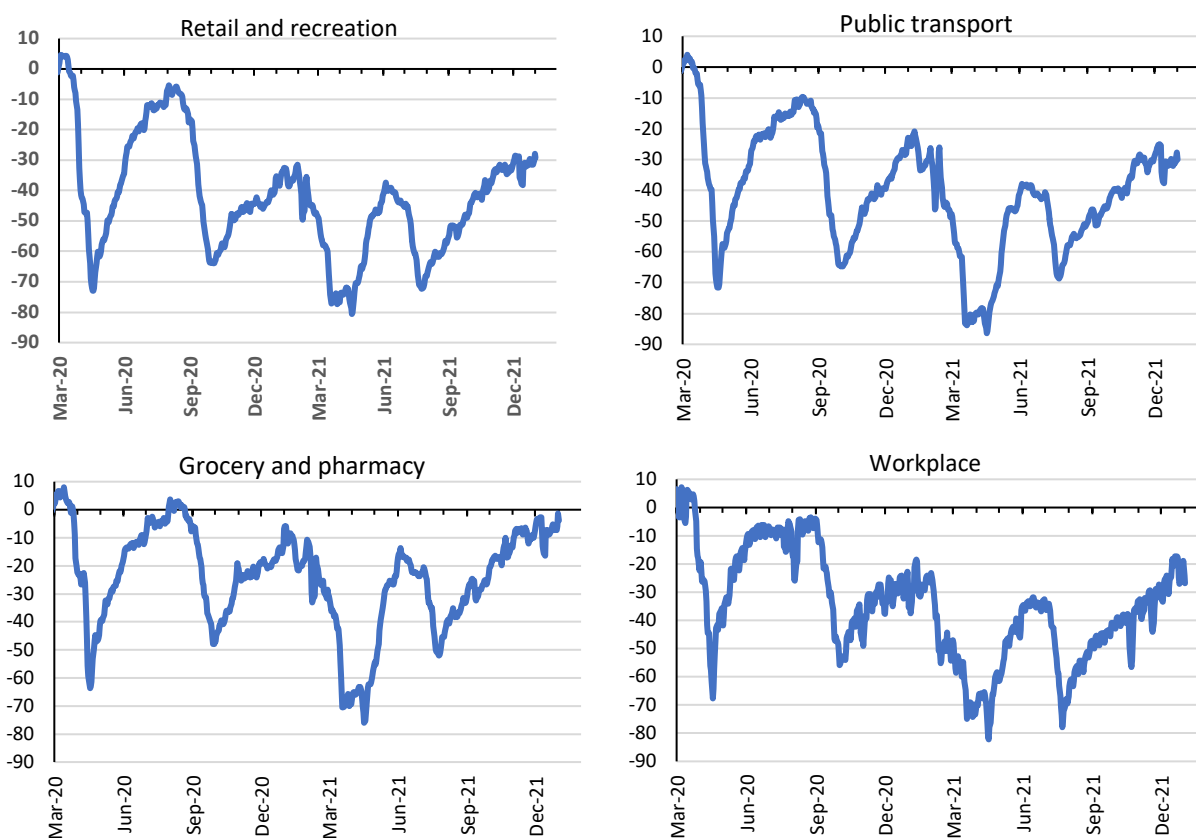


Note: 7 day moving averages, data to 17 January 2022. Reported cases were low between February and April 2021 due to very limited testing.  
 Source: <https://ourworldindata.org/>

**Various stay-at-home directives and other restrictions imposed through August and September have subsequently been lifted.** COVID-19 public holidays were declared in mid-July and subsequently extended through to September. In conjunction with precautionary behavior and ongoing security concerns, these restrictions suppressed mobility and led to additional disruptions to business operations and the supply of labor and inputs. While restrictions have now been relaxed, others remain, including limitations on public gatherings and the entry of international passengers. Schools were closed from mid-July until November, and despite recent re-openings, attendance reportedly remains low.

**As a result, mobility has gradually recovered since late-July, and is currently at levels last reached in January 2021 or earlier.** The mobility data clearly reflects the four substantial shocks that have hit the Myanmar economy since the beginning of 2020 (three waves of COVID-19 and the February coup). Despite the recent upward trend, mobility at retail and transport hubs remains around 30 percent below pre-COVID-19 baselines (Figure 2).

Figure 2: Daily mobility (percent change from 3 January–6 February 2020 baseline)

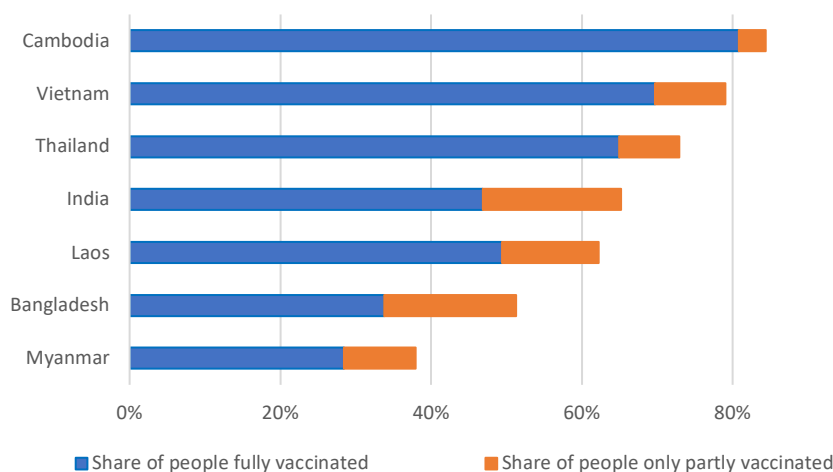


Source: Google COVID-19 Community Mobility Reports. Five day moving average.

**But vaccination rates remain low, leaving Myanmar vulnerable to the Omicron variant and further waves of COVID-19.**

**Vaccination rates remain very low largely due to ongoing supply issues around the availability and distribution of vaccines.** As of January 4, 2022, around 29 percent of the population were fully vaccinated, while another 9 percent had received one dose, well below rates in neighboring countries (Figure 3). Although the vaccination rate has reached well above the earlier projected level of 25 percent in December, the health impacts of any renewed surge of COVID-19 cases are likely to be much more difficult to manage while vaccination rates remain low. Nevertheless, the regional experience suggests that Omicron cases are likely to rise significantly in the coming months (see Part II: Outlook and Risks).

Figure 3: Percentage of population fully vaccinated against COVID-19

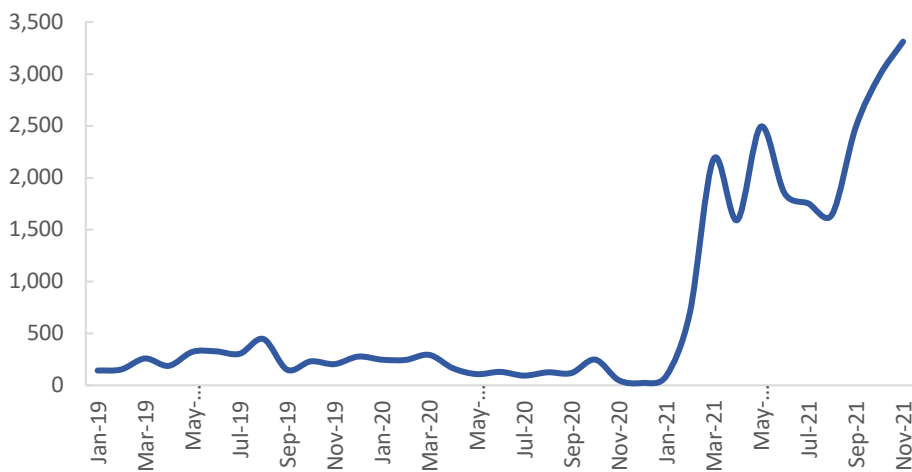


Source: ourworldindata.org (Latest available data: as at late December 2021/early January 2022).

In addition to its severe impacts on lives and livelihoods, increases in conflict have had substantial implications for economic activity.

The security environment has deteriorated in many parts of Myanmar, including areas that had largely been spared civil conflict over recent years. Data from the armed conflict location and event data project (ACLED) indicates that conflicts picked up substantially across the country in the immediate aftermath of the February coup, and again from August onwards (Figure 4). Conflict has risen in every state and region in 2021, with the increases particularly pronounced in the northern and central states, particularly in Sagaing, Magway, and Mandalay, but also in Kachin, Shan, and Chin (Figure 5). Subregional GDP data indicate that these six states were responsible for around 38 percent of total economic activity in 2019. Yangon, responsible for a further 25 percent of GDP, has also seen a sharp rise in conflict (Figure 5 and Figure 6).

Figure 4: Conflict intensity in Myanmar\*

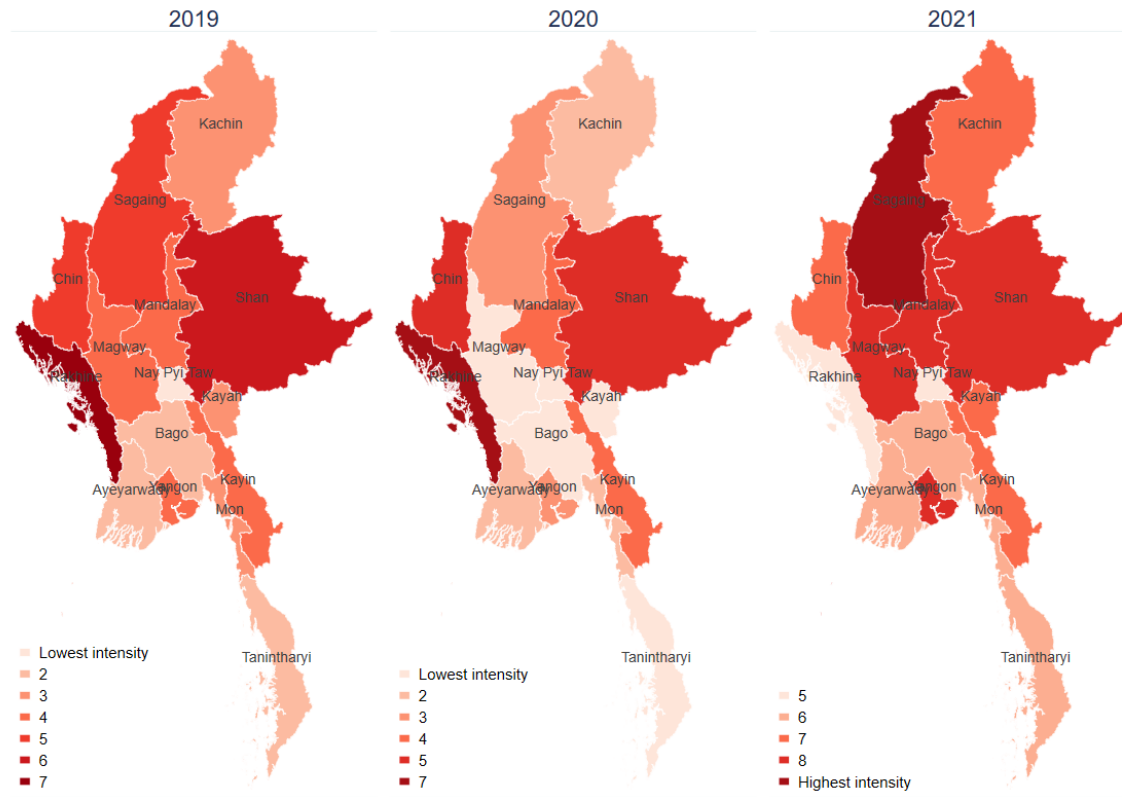


Source: ACLED

\*Conflict intensity is indexed to 100 for December 2018 as a base period. Conflict intensity is calculated as a geometric mean of events and fatalities. Events include battles, explosions/remote violence, protests, riots, strategic developments, and violence against civilians, and fatalities represent total fatalities resulted by each event.

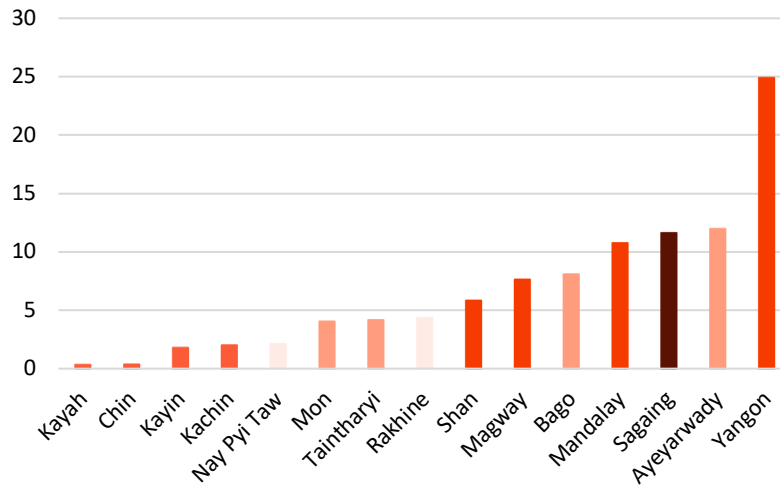


Figure 5: Conflict intensity in Myanmar, by state and region



Data for 2021 is available up to December 10, and darker color presents higher conflict intensity

Figure 6: Contribution to GDP in FY2018/19, percent\*



\*Columns color coded according to conflict intensity in 2021

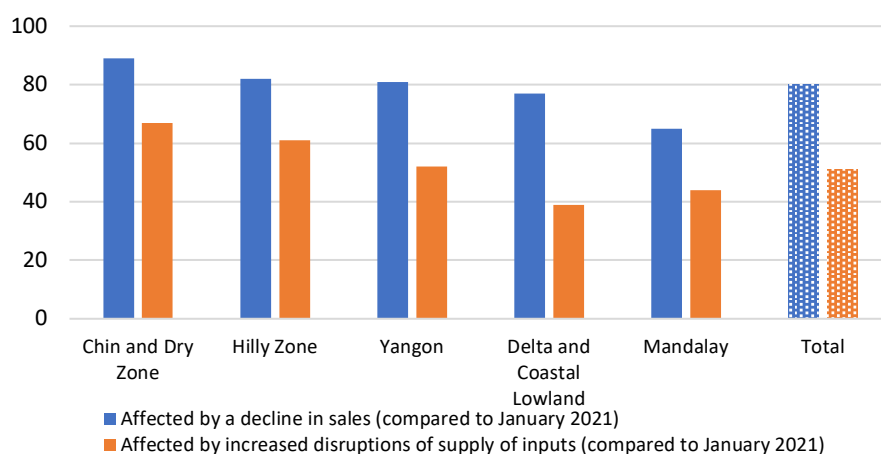
**Conflict, insecurity and displacement is having severe impacts on the lives and livelihoods of people across the country.** The UN reports that more than 223,000 people have been displaced by conflict and unrest

since 1 February 2021.<sup>1</sup> Through several different channels, conflict can also act to exacerbate income declines, price increases, and economic constraints faced by the broader population, particularly those living in rural areas who are dependent on the agriculture sector for their livelihoods (see Section B). This is in addition to the direct impacts of conflict on security, freedom of movement, and the accessibility of critical services. The household-level impacts of recent shocks are therefore likely to be particularly severe in those areas where conflict is greatest. The compounding of welfare challenges will mean that the poor and vulnerable living in these areas – whose coping mechanisms were already severely strained even prior to 2021 – are likely to fall into deeper destitution. Already there have been increased reports of communities being forced to reduce food expenditures and sell assets, rather than accessing credit or being able to rely on help from the government.<sup>2</sup>

**In addition to its severe humanitarian impacts, the sharp rise in conflict has also had significant impacts on firms, which in turn translate to further pressures on household incomes and employment.**

In the particularly conflict-affected region of Chin and the Dry Zone, which incorporates the regions of Sagaing and Magwe (as well as Chin and Nay Pyi Taw), 89 percent of firms reported a decline in sales in October compared with January, and two-thirds reported increased disruptions in the supply of inputs. These proportions of affected firms are higher than in other states and regions across the country (Figure 7). At the same time as demand has fallen, firms have needed to devote scarce resources to dealing with security-related operating constraints and ensuring the safety of their staff and customers. Logistics have been hampered by an increase in the number of security checkpoints and roadblocks (which often require some form of payment) increasing transport times and costs. Businesses' confidence and ability to plan for the future are heavily constrained by the ongoing threat of conflict, reducing their appetite to hire staff and invest.

*Figure 7: Impacts reported by firms, by region  
(October 2021 survey, percent of all firms surveyed)*



<sup>1</sup> UN OCHA, December 9, 2021. "[Myanmar Humanitarian Update.](#)"

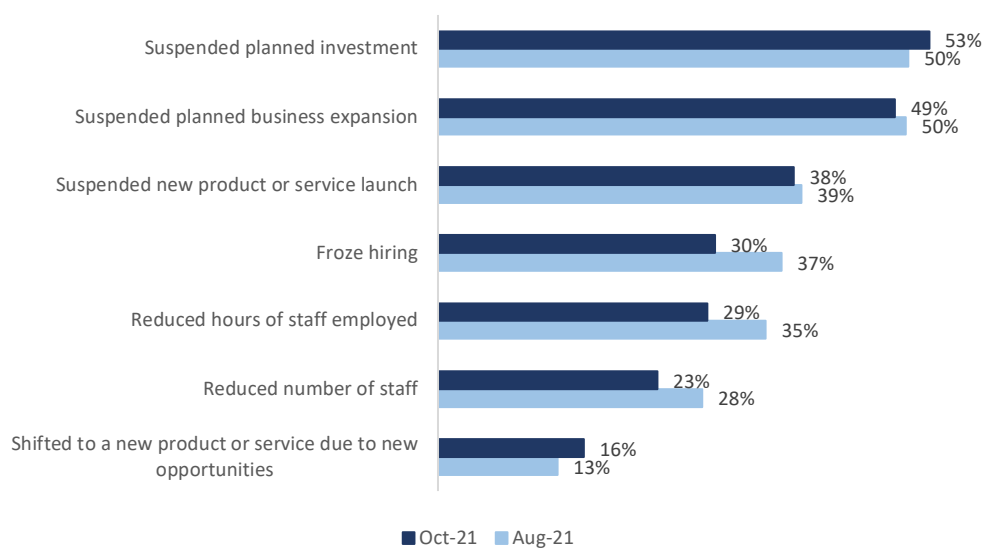
<sup>2</sup> IFPRI (December 2021), *Community perceptions of the economic impacts of Myanmar's health and political crises*, Strategy Support Program Research Note 70.

**More generally, reports from firms across the country provide evidence of persistent supply and demand-side constraints.**

**Firms continue to report sharp reductions in sales and profits, cashflow shortages, and disruptions in the supply of inputs and in access to banking and internet services.** The latest results from a survey conducted in October 2021 indicate that 80 percent of firms experienced a decline in sales since January 2021, with an average reported sales decline of 59 percent. Around half of all firms experienced disruptions in the supply of inputs and raw materials, largely because of increases in costs, including due to the sharp exchange rate depreciation in September (see Section F). Fifty-one percent of firms reported a cashflow shortage, with 28 percent of firms reporting difficulties in making payments to suppliers and employees due to limited banking services. Twenty-eight percent of firms reported that limited internet access impacted their operations. As a result of these ongoing constraints on both demand and supply, firms reported operating at only 57 percent of their capacity, a further decrease from the 63 percent reported in June 2021.

**Business confidence and expectations for the future remain commensurately weak.** As of October 2021, 41 percent of firms were expecting not to recover to January 2021 levels within the next six months, down from 32 percent in June. About a quarter of firms were expecting to fall into arrears in the next three months. In response, a substantial proportion of firms have suspended plans to invest and expand their business, reduced employee numbers or hours, and/or frozen new hires (Figure 8). The sharp decline in capital imports is one indication of the overall weakness in investment (see Section D). Some pick up in hiring intentions was observed in the October survey, however, when compared with the results from August. This is consistent with the stabilization across several sectors observed since the peak of the COVID-19-related disruptions in July and August 2021.

*Figure 8: Investment and hiring decisions reported by firms since February 2021*



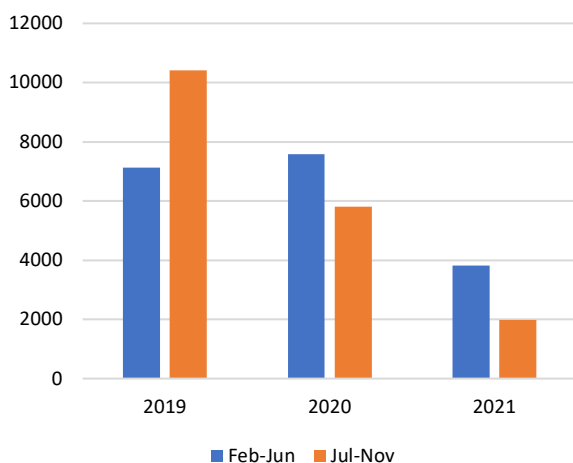
## B. Economic activity by sector

### i. Services

**Retailers and transport operators have been affected by rising costs, weak demand, and logistical constraints.**

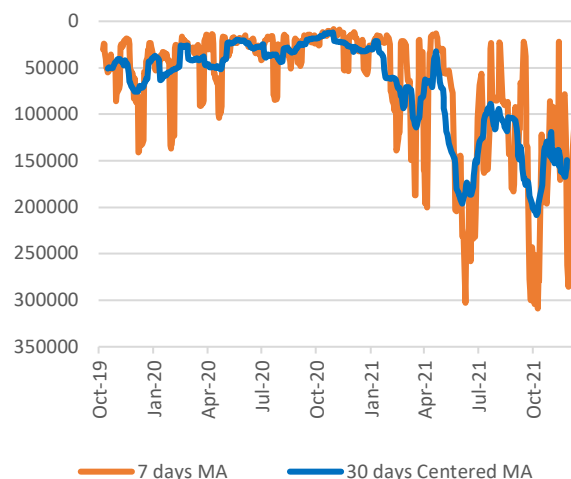
**Despite improved mobility, retailers remain under pressure due to substantial increases in import prices, coupled with weak demand.** Kyat depreciation and logistics constraints (due in part to COVID-19-related border closures) have raised the cost of imported stock and put pressure on margins. Media reports suggested that retailers were forced to close or scale down their operations in late September and October in response to the rising kyat price of dollar-denominated imports and elevated exchange rate volatility. During this period, sales of technology products such as computers and phones fell by as much as 40 percent, according to an IT retailer.<sup>3</sup> At the same time, consumer demand is likely to have remained particularly weak due to elevated security concerns and the cumulative impacts of the coup and COVID-19 shocks on incomes and employment. In light of sharply lower incomes, the correlation between mobility and retail spending is likely to have weakened in recent months, complicating the interpretation of the recent mobility data. Indicators of discretionary spending – motor vehicle sales and activity on shop.com.mm – remained relatively weak in the second half of 2021 (Figures 4 and 5).

Figure 4: Number of motor vehicle sales



Source: ASEAN Automotive Association

Figure 5: Alexa internet traffic ranking for shop.com.mm



Source: <https://siterankdata.com/shop.com.mm>

**Survey data confirm that firms in the retail and wholesale sector are operating well below their capacity, with sales and profits sharply lower than in January 2021.** Almost 40 percent of firms reported

<sup>3</sup> See <http://burmese.dvb.no/archives/492310?fbclid=IwAR27Co8ialBHxH3FOq4fQaoir1uySOeIHJomZ0bRpXufO3kScsLZjtHUcVs>

temporary closures in the August firm survey round, around the peak of the third wave of COVID-19. While retail and wholesale firms have largely reopened, as of October they reported operating at less than 60 percent of their capacity on average, implying that the overall sector was operating at about half of pre-COVID-19 levels (i.e. after controlling for firm closures; Figure 9). Sales have also fallen substantially since January 2021, with over 80 percent of retail and wholesale firms reporting a decline in sales in October, with the decline averaging more than 50 percent of January 2021 sales levels (Figure 10). As expected, confidence in the retail sector has also declined: in October 2021, 46 percent of firms reported that they did not expect to recover to levels seen before February 2021 within the next six months, up from 36 percent in June.

Figure 9: Retail and wholesale sector activity

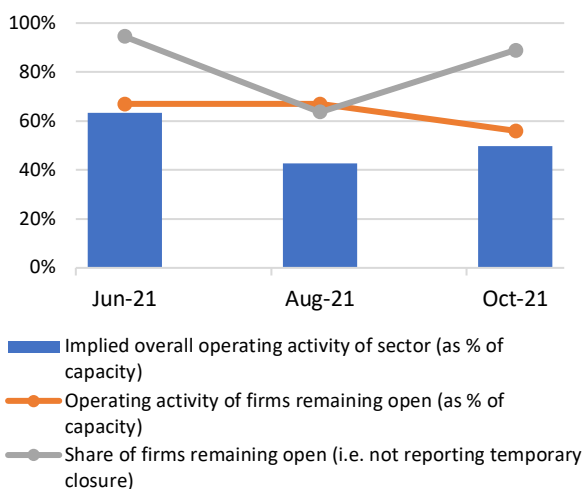
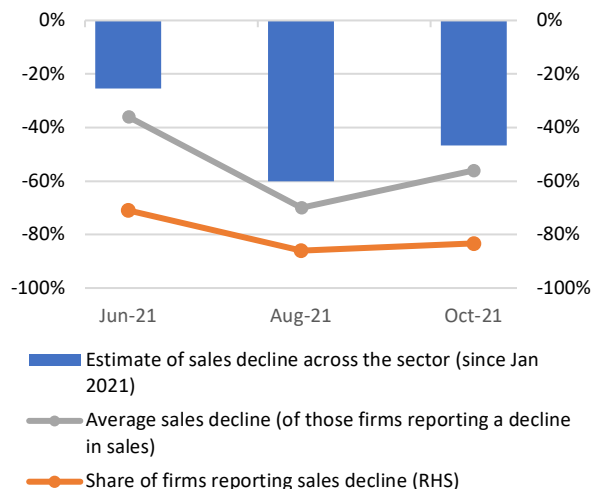


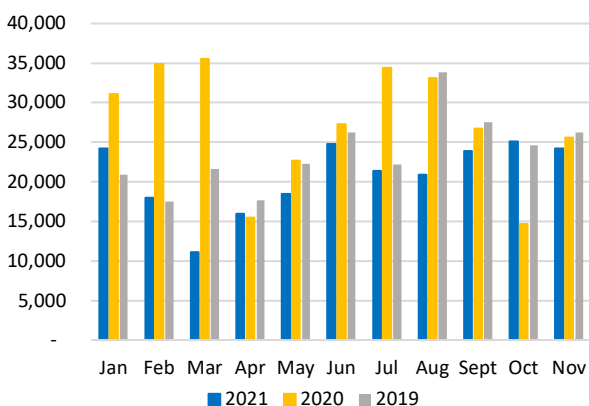
Figure 10: Retail and wholesale sector decline in sales



**Logistics companies have been affected by rising fuel prices, border closures, and a shortage of shipping containers.** Following the low point in March and April 2021, exported shipping containers have recovered to close to previous year levels in recent months, though imported containers are still significantly lower (Figure 11 and Figure 12). The imbalance of imported and exported containers has resulted in a shortage of containers and consequently higher charges for exporting container freight. Land transport has been affected by increased costs and constraints on movement. In October 2021, it was reported that around half of Myanmar’s freight providers had temporarily halted their operations because of diminished trade due to Chinese border closures and increases in the prices of fuel and spare parts, as well as the difficulty of accessing fuel at filling stations.<sup>4</sup> In addition, the increased prevalence of checkpoints and roadblocks has lengthened transport times, with reports also indicating an increase in the payments required to clear these checkpoints.

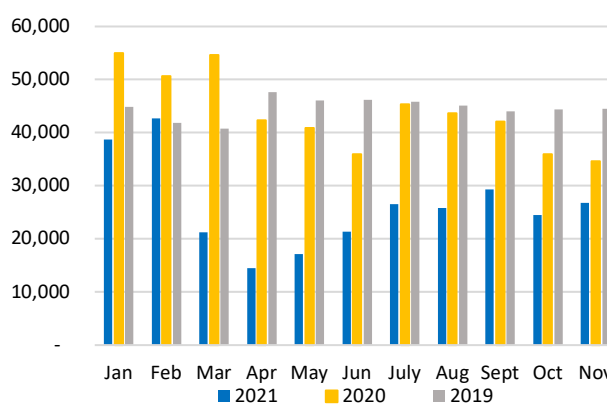
<sup>4</sup> The Irrawaddy. October 12, 2021. [“Rising Prices Forcing Myanmar Truckers to Stop Operations”](#).

Figure 11: Export of Laden Containers (TEUs)



Source: Shipping operators

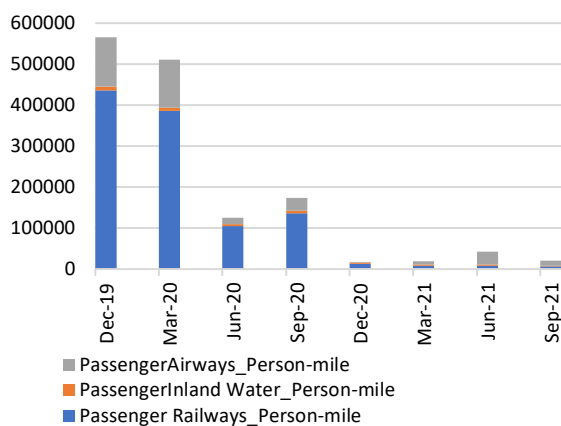
Figure 12: Import of Laden Containers (TEUs)



Source: Shipping operators

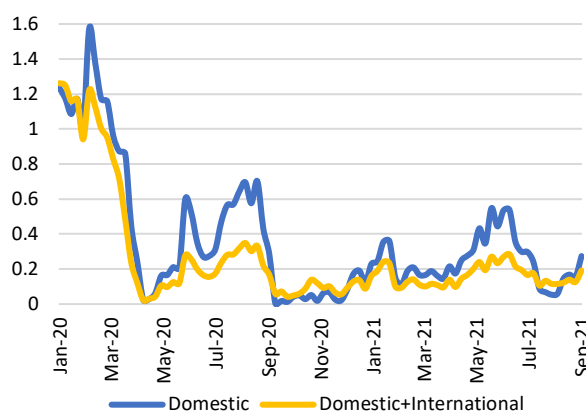
**Domestic and international passenger movements remain limited due to the impacts of COVID-19 restrictions and the ongoing political instability, with substantial implications for tourism-dependent businesses.** In July 2021, mobility at transport hubs was about 70 percentage points lower than the levels at the end of January 2021, however, by the end of December mobility had recovered to around 30 percent below January levels. Compared with FY2020, total passenger transport has dropped by 92 percent in the year to September 2021 (Figure 13). According to the Ministry of Hotels and Tourism, as at mid-September almost half (225 out of 483) of all hotels in Yangon had closed down citing the decrease in passenger movement. Although most of the domestic flights to locations across the country restarted operations in August 2021, international tourism has effectively ceased with international commercial flights to Myanmar being suspended since March 2020 (Figure 14). This suspension has recently been extended until the end of January 2022.

Figure 13: Passenger transport



Source: CEIC

Figure 14: Flight transport (2019=1)



Source: Flightradar 24

**Internet disruptions have also affected the ability of businesses to use digital platforms and services.**

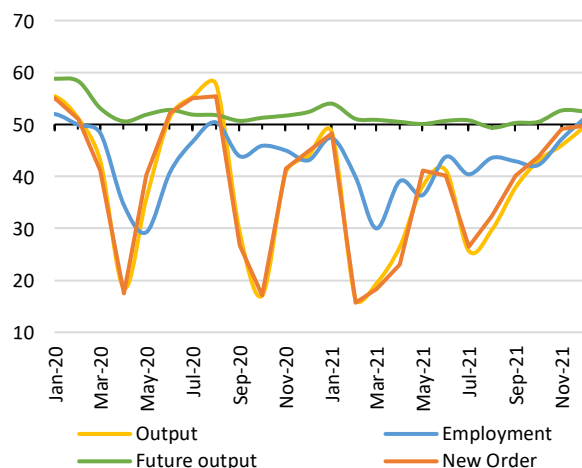
Despite an overall reduction in the extent of internet outages since April, ongoing restrictions and disruptions, particularly in areas of elevated conflict, are proving challenging for businesses (see Part III: Digital Disruptions and Economic Impacts). Targeted attacks on telecommunication towers have also led to the loss of internet access in some areas. In December, mobile data prices charged by each of the four telecom operators in Myanmar were almost doubled, the price of SIM cards was increased, and the commercial tax rate applied to the incomes of internet providers was increased from 5 to 15 percent. These moves are likely to further curb internet and social media use, reducing the attendant economic benefits associated with better access to information, services, and markets, and placing additional pressure on telecommunications operators.

**ii. Manufacturing****The manufacturing sector appears to be stabilizing, but at low levels of output and employment.**

**Manufacturing sector activity continued to weaken through the second half of 2021.** While only small contractions in the Manufacturing Purchasing Managers' Index (PMI) were reported in November and December, output and new orders have now declined for 16 consecutive months as at the end of 2021 (Figure 15). The duration and pace of this contraction has been significantly worse than what has been experienced elsewhere in the region (Figure 16). Overall, the PMI data indicate that the manufacturing sector in aggregate is likely to be substantially smaller than it was in mid-2020. Over the last six months, production volumes have been hampered by shortages of materials and skilled workers, and rising prices of imported inputs. These in turn have resulted from exchange rate depreciation, rising local transport costs and bottlenecks, political instability, and global material shortages and supply chain disruptions. At the same time, a reduction in client activity and orders has weighed on demand, together with persistent cash shortages and rising output prices.

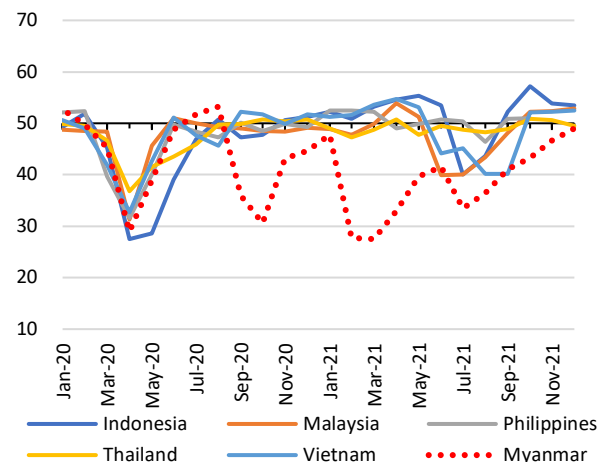
**Nevertheless, the pace of the decline has slowed substantially since July, when the impact of the third wave of COVID-19 was particularly severe.** With the overall index now close to neutral levels (as of December 2021), some degree of stabilization can be inferred, albeit at much lower levels of output and employment than was the case in mid-2020. But in line with increases in the overall index, several of the abovementioned constraints have reportedly eased in recent months, with some firms adding to their headcount and citing plans to upgrade machinery. This is also reflected in the trade data (see Section D), which shows that garment exports have steadily recovered after falling in the immediate aftermath of the February coup, with a corresponding increase in the import of cut-make-pack (CMP) products over the same period.

**Figure 15: Myanmar Manufacturing Purchasing Managers' Index (PMI) components**  
( > 50 indicates expansion, < 50 contraction)



Source: IHS Markit

**Figure 16: Regional Manufacturing PMIs**  
( > 50 indicates expansion, < 50, contraction)

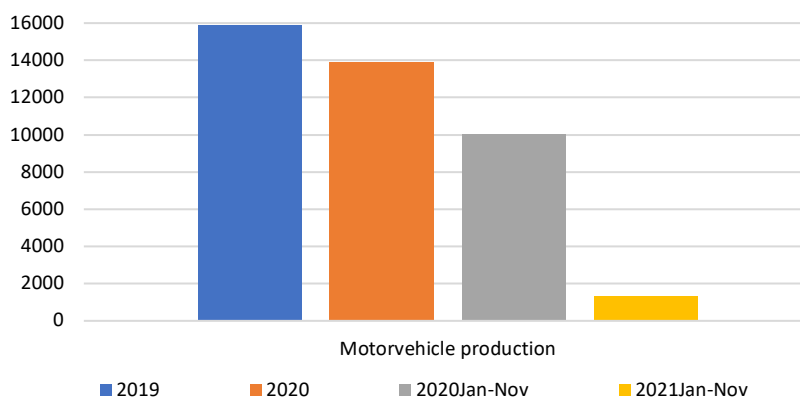


Source: IHS Markit

The latest firm survey results indicate that overall operating activity and sales of manufacturing firms remained relatively weak as of October. While most firms that temporarily closed due to the third wave of COVID-19 had subsequently reopened by October, open firms reported operating at less than two-thirds of their capacity on average. Overall, the firm survey results indicate that the manufacturing sector was operating at just under half of its capacity as at October 2021, and had experienced a decline in sales of about 50 percent since January 2021.

Motor vehicle production was very weak in 2021. Between January and November 2021, motor vehicle production fell by 87 percent compared to the same period in 2020 (Figure 17). The month of November saw a modest rebound in production, potentially due to recent moves to suspend fully assembled vehicle imports (starting on October 1), as part of broader efforts to curb the use of foreign exchange.

**Figure 17: Number of motor vehicles produced**



Source: ASEAN Automotive Federation



**Activities previously viewed as uneconomic (state-owned steel factories, oil refineries) have been encouraged to recommence.** There have reportedly been efforts to rehabilitate the No. 1 Steel Plant in Myingyan, the original construction of which has resulted in substantial and ongoing debt repayment obligations to the China Development Bank. According to an auditor general's report, the mill incurred a loss of more than 130 billion kyat in total during the five-year period from 2012 to 2017.<sup>5</sup> The authorities have also called for the resumption of operations at a Russia-backed steel factory in Pinpet (in southern Shan State), and at the Thanlyin oil refinery in Yangon. In 2017, the previous administration had formally suspended these three state-owned industrial projects and 21 others due to sustained heavy losses. There are also plans for state-owned production of pharmaceutical products to expand in the near term, given the authorities' intention to produce a COVID-19 vaccine domestically.

### iii. Construction

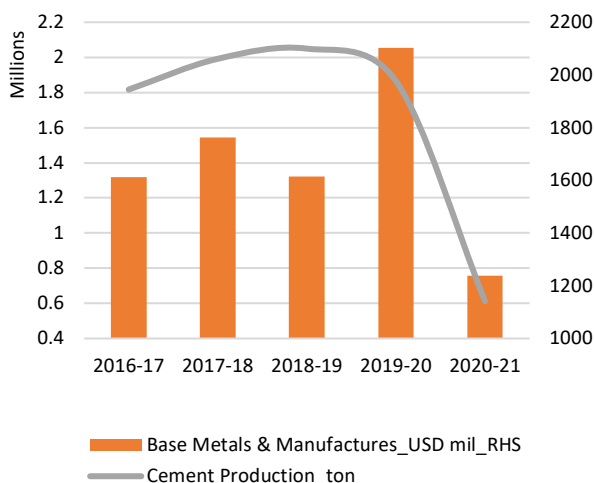
**After suffering severe COVID-19 impacts in mid-2021, the construction sector remains constrained by cash shortages and rising input costs.**

The construction sector—which accounted for about 8 percent of total economic activity in 2019—has been hit by project suspensions, a decline in the issuance of new permits, and a range of supply-side constraints including cash shortages and rising costs of imported inputs. As a result of COVID-19, a large portion of construction work was suspended in July, and the Construction Entrepreneurs' Federation estimated that about half of the 1.3 million workers in the construction industry had lost jobs. Reports also indicated that several Government-funded construction projects had been suspended as contractors have been unable to withdraw funds from the state-run Myanmar Economic Bank branches to finance the tenders. While imports account for a large proportion of total supply, local cement production has fallen by about two thirds in FY2021 compared with levels seen in previous years (Figure 18), providing further evidence of a slump in construction activity. Until around September, the pipeline for new work had also dried up: in the period from February to September 2021, the total number of issued construction permits in Yangon fell by 24 percent, compared with the same period in 2020. However, since October, permit issuance has increased and there have been some early indications that the building and industrial zone construction projects may commence in the coming quarters (Figure 19). On the other hand, weak demand, a lack of access to credit, and input cost pressure continue to act as constraints.

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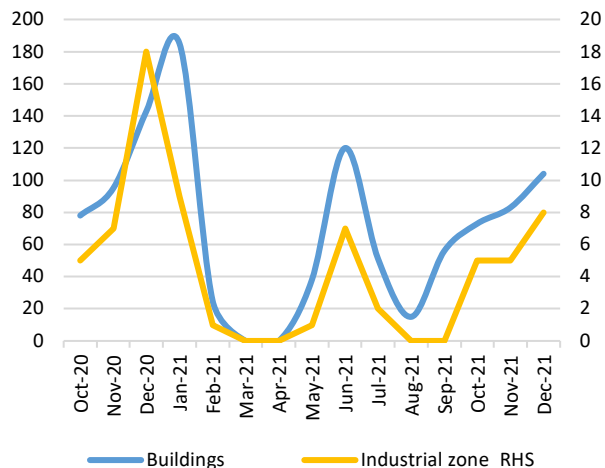
<sup>5</sup>Myanmar Now. August, 26, 2021. "[Junta Attempts to Reopen Steel Mill Once Dismissed as a Debt Trap](#)".

Figure 18: Cement production vs Import of Base Metals



Source: CEIC

Figure 19: Number of construction permits issued



Source: Yangon City Development Committee

#### iv. Energy and mining

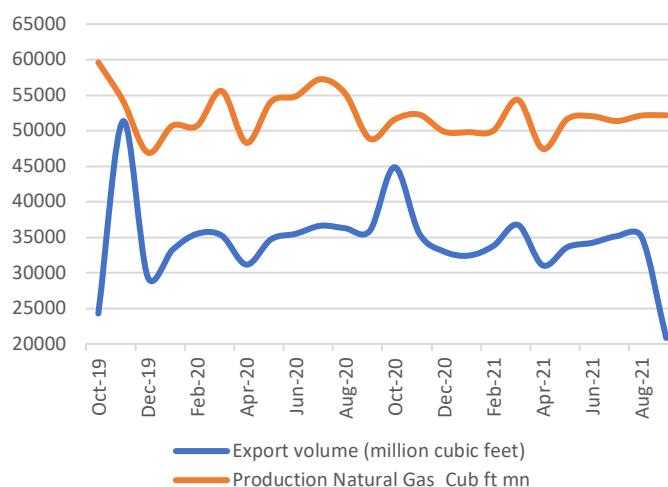
Energy production has been comparatively resilient, while reports of an increase in mining activity pose environmental concerns.

Compared with end-2020 levels, natural gas production has been broadly resilient in 2021 despite recent shocks. Despite production at existing onshore areas beginning to slow, and some volatility earlier in the year, natural gas production remained broadly stable between May and September 2021 (Figure 20). Operations at the Yetagun offshore field ceased in April due to the depletion of gas stocks, with production rates dropping below technical threshold. While operations resumed in July and August (at low volumes) they were suspended again due to workers contracting COVID-19. Except for Yetagun, offshore gas fields have been operating as usual since February.

However, gas export earnings, which account for a significant portion of fiscal revenue, fell by 14 percent in FY2020/21. The earnings for FY2020/21 are estimated to be about US\$3.0 billion, compared to US\$3.5 billion in FY2019/20, according to the figures reported by the Ministry of Commerce. Myanmar's gas exports are expected to decline in the coming years as production at existing onshore areas begins to slow and new developments are delayed. The recently announced withdrawal of TotalEnergies from the Yadana field may also have longer-term consequences for production, export earnings and public revenues, though the extent of these impacts remains unclear at this stage.

Mining activity appears to have accelerated, posing environmental concerns. In the last 10 months, Kachin State has seen a significant increase in gold and rare earth mining operations, much of which is illegal and/or unregulated. Exports to China have also resumed after the reopening of the China-Myanmar border in late November. The rise in unregulated mining activity poses pressing environmental concerns, including damage to waterways and the surrounding ecosystems.

Figure 20: Natural gas production



Source: CEIC, Selected Monthly Economic Indicators

## v. Agriculture

**Farmers continue to be affected by higher prices for key inputs, restricted access to credit, and ongoing logistics constraints.**

**Agricultural input prices have risen significantly.** Due to the depreciation of the kyat, together with ongoing logistics and security-related constraints (see Section C: Prices), inputs such as fuel, fertilizer, pesticides, and seeds are more expensive than last year. The price of fertilizer during the 2021 monsoon season averaged over 60,000 MMK per bag, more than twice the price in the 2020 monsoon season, and the prices of herbicides increased by one-third. Agriculture mechanization service fees have reportedly increased by almost 25 percent.<sup>6</sup> As a result, most farmers opted for direct seeding and broadcasting methods during the planting of the monsoon rice crop (which are expected to have lower yields than transplanting, partly due to weed infestation)<sup>7</sup>. Higher production and harvesting costs have led to the government setting a floor price of 540,000 kyat per 100 baskets of rice in 2021-22, above the prices in the past two years,<sup>8</sup> but still insufficient to cover production costs and margins, especially for farmers in remote locations.<sup>9</sup>

<sup>6</sup> IFPRI (2021) *Monitoring the agri-food system in Myanmar. Mechanization Service Providers – July 2021 survey round*, Strategy Support Program Research Note 62, September 2021, Myanmar: Yangon.

<sup>7</sup> USDA (2021) *Updated report: Burma - Rising Food Prices due to Exchange Rate and Other Challenges (BM2021-0030)*, United States Department of Agriculture (USDA), October 2021.

<sup>8</sup> In 2019/20, the price was set at 500,000 kyats per 100 baskets (USD 147/MT) and in 2020/21, at 520,000 kyats per 100 baskets (about USD 152/MT).

<sup>9</sup> The Irrawaddy (2021), *Myanmar rice farmers face losses as Junta sets minimum price too low*, October 7 (<https://www.irrawaddy.com/news/burma/myanmar-rice-farmers-face-losses-as-junta-sets-minimum-price-too-low.html>)

**These higher input prices have led to a reduction in planting areas and the use of critical inputs, despite favorable weather conditions.** According to the Department of Agriculture (MOALI), despite favorable weather conditions the growing area of paddy for the 2021-22 crop year is around 9 percent below the average growing area of the three years to April 2020 (Table 1). In phone surveys conducted in the Delta region by the Market Analysis Unit (MAU) of Mercy Corps in November 2021, half of the respondents reported having reduced their planted acreage this year. Fertilizer use has also declined. According to an IFPRI phone survey of 123 input retailers in September 2021, increases in fertilizer and urea prices have led to reductions in farmer purchases of fertilizer and urea by 38 percent and 42 percent respectively, which their analysis indicates if replicated across the country could cause an 8 to 12 percent decline in monsoon production. For maize, early data on the 2021 monsoon season suggests that higher input prices, including of fertilizer as well as of maize seeds mostly imported from Thailand, led to lower input use and accordingly reduced crop prospects.

*Table 1: Actual paddy growing areas in Myanmar*

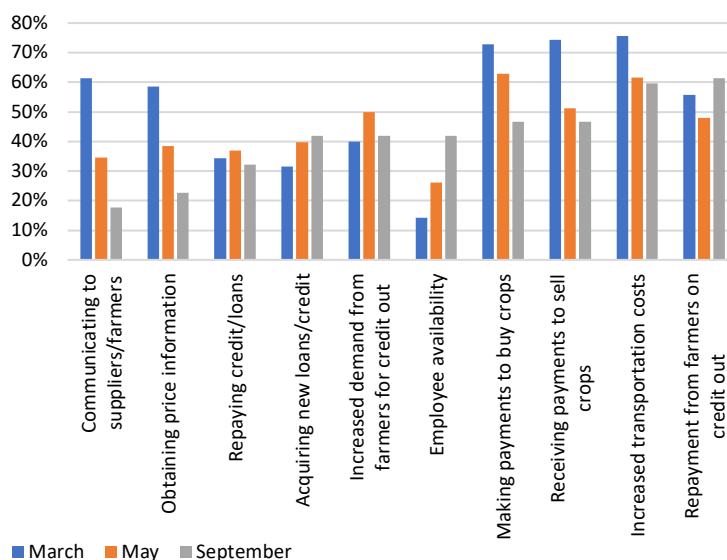
Sowing years (May to April)	2017-18	2018-19	2019-20	2020-21	2021-22
Actual growing area ('000 hectares)	7,256	7,228	7,004	6,717	6,503

Note: Sown areas for 2017-18, 2018-19 and 2019-20, and actual growing areas for 2020-21 and 2021-22.

Source: DOA (2021) Data Records from Department of Agriculture (DOA), Ministry of Agriculture, Livestock and Irrigation (MOALI), Nay Pyi Taw, Myanmar.

**Increased market prices appear to have provided limited benefits to farmers, with indications that farmgate prices have remained low even while input prices have increased sharply.** Reports indicate that disruptions faced by intermediaries, including increased transport costs and reduced cashflow, have continued to drive a wedge between farmgate prices and consumer prices. IFPRI survey data indicates that in September, more than half of crop traders faced disruptions associated with not receiving repayment on credit provided to farmers and increased transportation costs (Figure 21). Payment challenges – both in buying and selling crops – also persisted. Survey data from rice millers show lower prices paid to farmers for their summer paddy compared to 2020, even while rice prices reported by food vendors have risen by 11 percent over the same period (IFPRI WP12, July 2021).

Figure 21: Disruptions experienced by crop traders by month, percentage reporting



Source: Myanmar Agriculture Policy Support Activity (MAPSA). 2021. <sup>10</sup>

**Reduced access to credit and liquidity have exacerbated the difficulties faced by farmers in obtaining necessary inputs.** Input retailers have reduced drastically credit made available to farmers. An IFPRI phone survey in September 2021, during the growing time of the monsoon season, reported that only half of input retailers were willing to offer credit to farmers, down from 83 per cent in 2020.<sup>11</sup> For livestock raisers, feed distributors are reportedly demanding that farmers purchase feed in cash and up front. Those terms challenge small- and medium-scale farmers, especially in a context of higher feed prices due to more expensive raw feed ingredients. In response, the authorities have announced that livestock, fish and shrimp farmers can access loans at an interest rate of one percent for one year.<sup>12</sup>

**With an increased reliance on cash payments for crop trading, a CBM notification that restricts the use of cash may further constrain liquidity and trade.** While early in the year mobile banking services were still operational for suppliers and clients, use and availability of these services has subsequently declined. An IFPRI survey of crop traders indicates that reliance on cash for crop purchases had increased as of September, facilitating 89 percent of crop trader purchases, a 14-point jump since May, as the use of banks and e-money operations have become more difficult. But in early November, the CBM issued a notification restricting the use of cash to the settlement of only those transactions below MMK 20 million (see Section G: *Financial sector developments*). This is likely to further constrain agricultural trade and disrupt supply chains, given widespread physical cash shortages.

**Logistics also remains a constraint to trade within Myanmar and across borders.** Reports indicate that arriving shipments are being cleared without facing major clearance challenges. But importers are reportedly

<sup>10</sup> IFPRI (2021) *Monitoring the agri-food system in Myanmar. Agricultural Input Retailers – September 2021 survey round*, Strategy Support Program Research Note 66, October 2021, Myanmar: Yangon.

<sup>11</sup> Ibid.

<sup>12</sup> MOALI, "[Response to possible economic impact of COVID-19 on livestock sector.](#)"

purchasing wheat and soybean meal in bulk shipments due to increased container costs. Border closures and restrictions have curtailed land border trade (see Section D: International trade). The unstable security situation and the associated disruptions to transport within Myanmar (including an increase in checkpoints and roadblocks) have also contributed to supply issues and rising costs of trade, particularly in conflict-affected areas.

**Food insecurity is of rising concern.** The prices of some basic food items have risen rapidly (see Section C: Prices). At the same time, agricultural production in rural areas – home to around 70 percent of Myanmar’s population in 2019, with agriculture the key source of livelihoods – has been hampered by the constraints mentioned above: rising input prices, logistics disruptions, and a lack of access to liquidity and finance. Net food consumers have similarly been affected by rising prices, as well as declining incomes and employment. UN OCHA estimates that 12 million people (about 22 percent of the population) are moderately food insecure and 1.2 million are severely food insecure, with the use of emergency coping strategies increasing sharply.<sup>13</sup> A WFP/FAO assessment conducted in August/September 2021 in nine states and regions showed that a third of households assessed spent more than 70 percent of their total expenditure on food, and 46 percent of households reported that in the 30 days before the survey, they ate less than they should.<sup>14</sup>

## C. Prices

**Inflationary pressure has picked up substantially, with food and energy prices rising fast.**

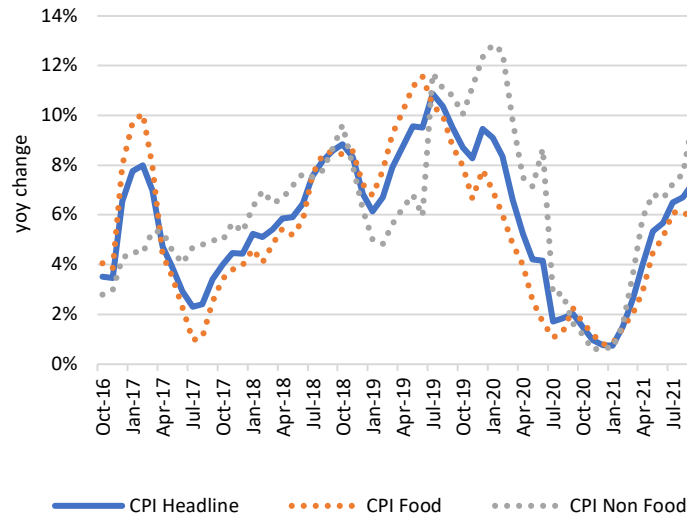
**Inflation rose in the September quarter (FY2021) due to increased food and fuel prices, with the depreciation of the kyat also increasing the price of other non-food imports.** In September 2021, inflation increased to 7.3 percent (Figure 22). In year-on-year terms, following the low of 0.7 percent in January. Non-food price inflation reached 9.8 percent in December compared to 0.6 percent in January, largely explained by increase in transport costs, which accounts for around 25 percent of the total non-food basket (Figure 23). The increase in transport prices, in turn, has largely been driven by an increase in kyat-denominated fuel prices (Figure 24).

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<sup>13</sup> UN OCHA (December 2021), Humanitarian Needs Overview – Myanmar.

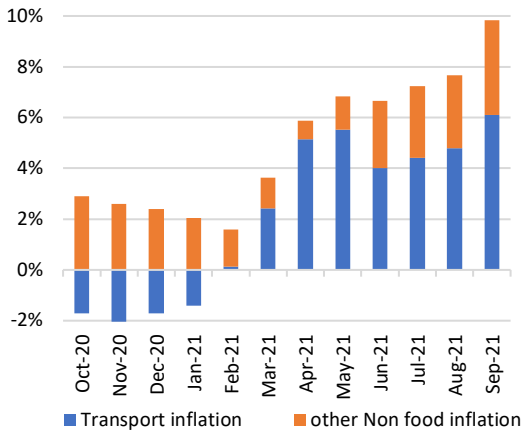
<sup>14</sup> As referenced in UN OCHA (December 2021).

Figure 22: Headline, Food and Non-food Inflation (YoY)



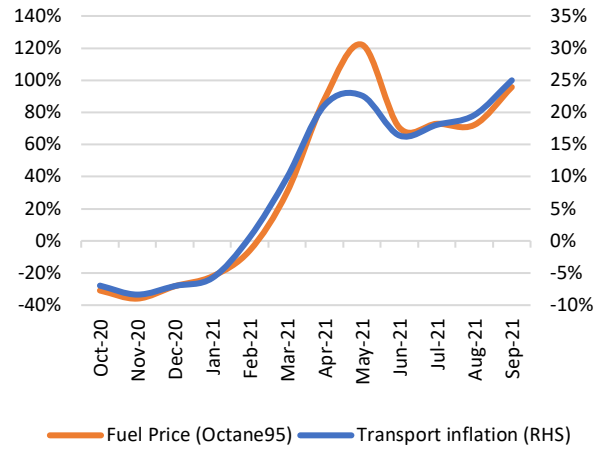
Source: Central Statistical Organization

Figure 23: Contributions to non-food inflation (year on year % change)



Source: Central Statistical Organization

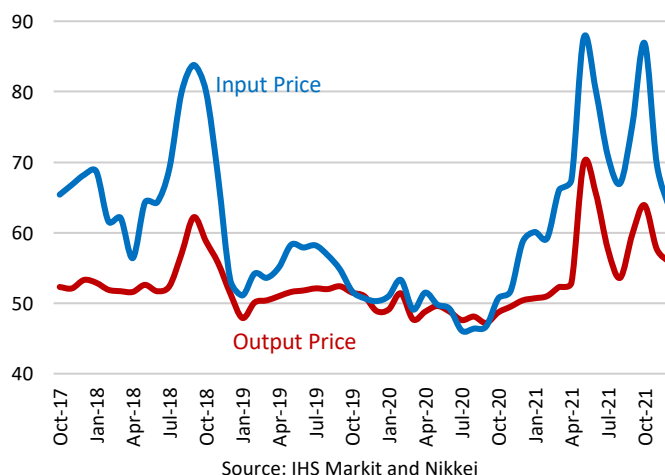
Figure 24: Fuel and transport prices (year on year % change)



Source: Central Statistical Organization, Denko

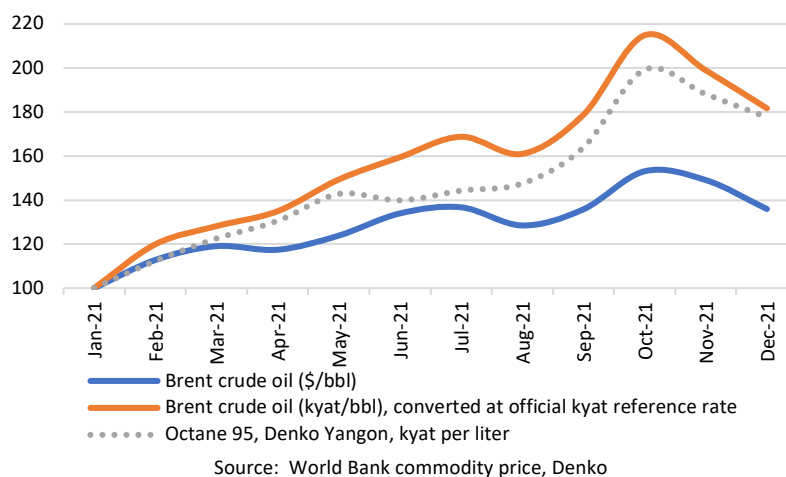
**Most manufacturers have reported rising input prices in recent months, though pass-through to output prices appears to have been only partial and limited by weak domestic demand.** PMI survey respondents indicated that exchange rate depreciation, higher raw material prices, and increased transportation costs were key drivers of inflation. As a result of the sharp exchange rate depreciation observed in September, around 84 percent of respondents mentioned higher costs in October compared to September 2021, and the input price index expanded to its highest level since May (Figure 25). Firms passed on higher expenses by raising output prices, albeit to a lesser extent. However, the price pressures faced by surveyed manufacturers appear to have eased in November and December.

Figure 25: PMI input and output prices



**Fuel prices have risen sharply since July 2021, peaking in October and November.** By the end of October, the fuel price was around 31 percent higher than at the end of July, and had doubled since the end of January. The increase in the fuel price is largely explained by the depreciation in the kyat against the US dollar and the increase in world oil prices over the same period (Figure 26). While domestic fuel prices declined over the last two months of 2021, as at end-December they were still 78 percent higher than in January 2021.

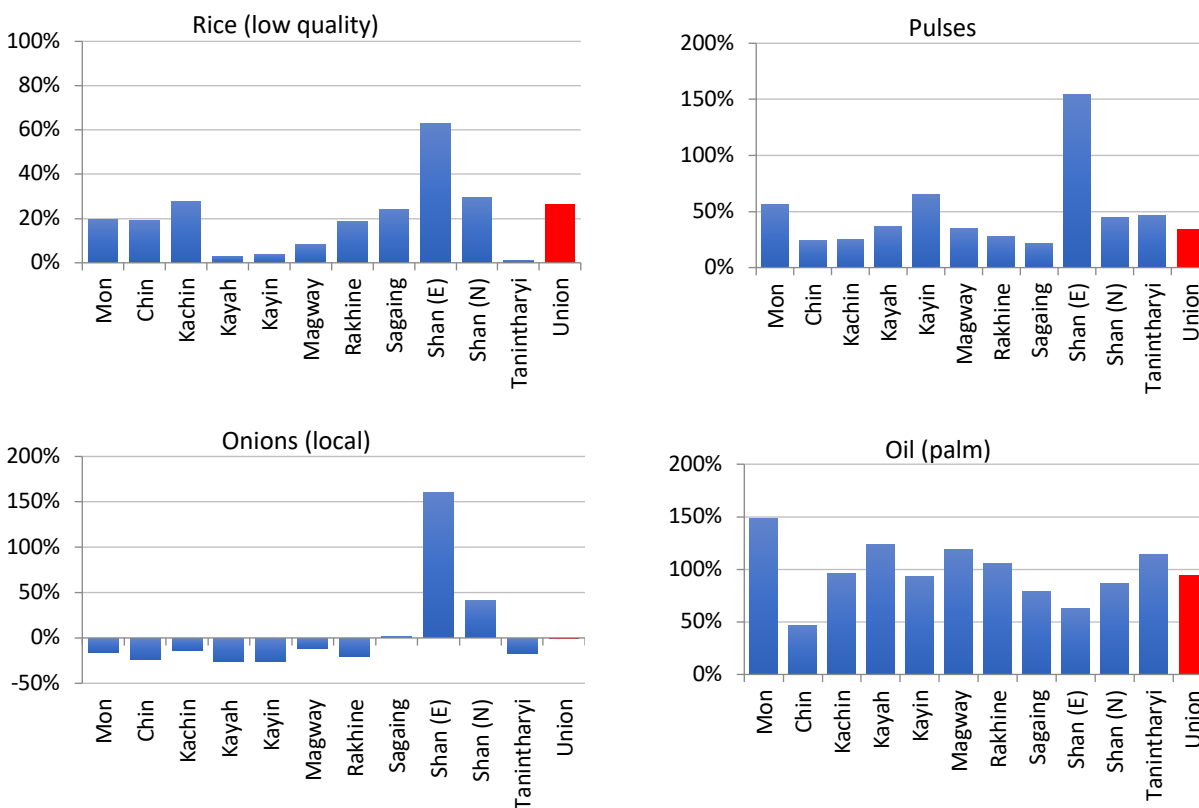
Figure 26: Fuel prices and key drivers  
Jan 2021 = 100





**Food prices have continued to rise, with substantial variation across states and regions.** Over the year to October 2021, the WFP reports that retail rice prices have increased by over a quarter, pulse prices by around 35 percent, and palm oil prices have nearly doubled (Figure 27). Reflecting increases in transport costs, logistics constraints, and conflict-related disruptions, the increase in prices was generally larger in food-deficit, remote and conflict-affected areas, and smaller in surplus-producing areas. As a perishable product, onion prices have exhibited substantial volatility over the year, with domestic prices heavily dependent on the quantity of local production and the ability of producers to access markets within Myanmar and abroad in reasonable time. The depreciation of the kyat against the US Dollar (and the associated increase in transport costs) has had a large impact on imported food prices, notably edible oils. Myanmar imports around 700,000-800,000 MT of palm oil annually to meet domestic consumption.<sup>15</sup>

Figure 27: Agricultural price changes (over the year to October 2021)



Source: WFP Price Database, available in data.humdata.org.

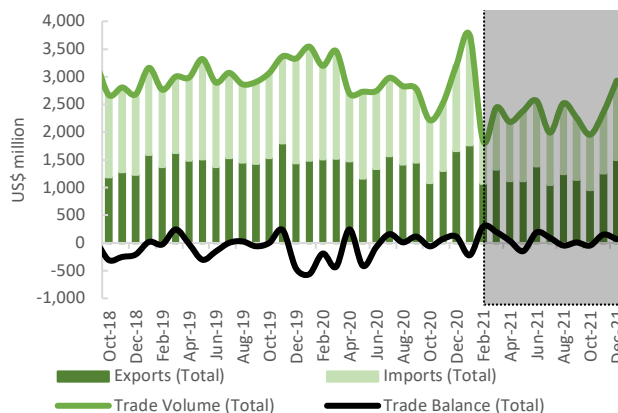
#### D. International trade

<sup>15</sup> The Ministry of Commerce and Myanmar Edible Oil Dealers’ Association imported palm oil at the Central Bank of Myanmar’s reference exchange rate (1,750 MMK per USD) in order to provide cooking oil at a fair price in September. The price of the palm oil imported by the MOC was 3,700 MMK per viss at different locations in Yangon, while the market price is about 4,000 MMK per viss.

Myanmar’s international trade remained lower in the aftermath of the coup but has been broadly stable since mid-2021.

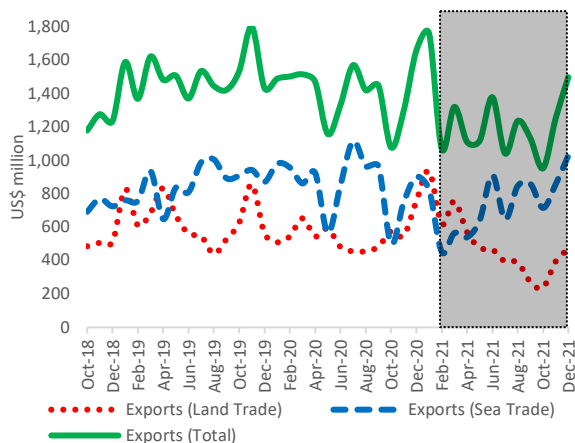
With disruptions in the aftermath of the coup and COVID-19, Myanmar’s international trade remained below pre-coup levels but has broadly stabilized since mid-2021 (Figure 28). Compared with the same period last year, trade declined by 15 percent (or US\$2.5 billion) between July and December 2021, driven by both exports (with a 16 percent decline) and imports (with a 15 percent decline). With exports declining by more than imports, the goods trade surplus narrowed to US\$228 million over this period – 45 percent lower compared with the same period last year. Despite remaining well below pre-coup levels, overall trade has been relatively stable since mid-2021.

Figure 28: Myanmar’s trade was broadly stable in H2 2021



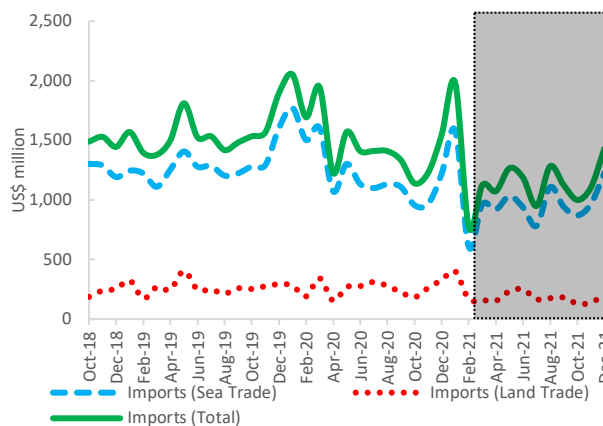
Source: CEIC and Ministry of Commerce

Figure 29: Despite a slight recovery for sea-bound exports, land border exports remained below pre-coup levels



Source: CEIC and Ministry of Commerce

Figure 30: ...but imports through both sea and land trade remained lower

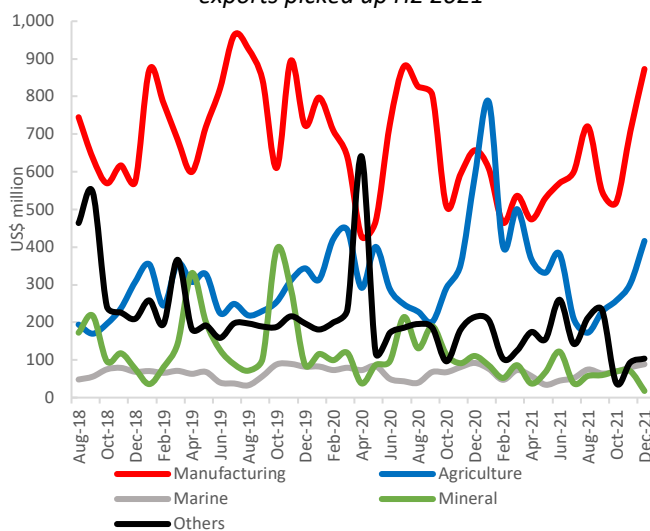


**While sea-bound trade has been relatively resilient, land trade continued to decline in the second half of 2021.** Despite increased container freight charges, sea-bound exports have trended upwards since the low point in early 2021 (Figure 29). Exports through land trade declined through most of 2021 due to logistics disruptions and border closures and restrictions, particularly at Chinese border posts as a result of strict COVID-19 control measures.<sup>16</sup> The November reopening of the Kyin San Kyawt gate, one of the major gates in Muse at the border with China, likely contributed to the pickup in land exports observed in recent months.<sup>17</sup> Overall, imports were broadly stable – at relatively low levels – throughout H2 2021. Despite a modest pickup of sea-bound imports, land imports continued to decline (Figure 30), which could be partly attributable to land border disruptions<sup>18</sup> and temporary import bans on certain consumer products through land borders (Table 3).

**After falling to low levels in the aftermath of the February coup, manufacturing exports have subsequently trended upwards (Figure 31).** Despite an overall 7 percent decline in H2 2021 compared with H2 2020, manufacturing exports steadily picked up through this period, mainly due to the recovery of garment exports (Figure 32). However, with uncertainty in the garment industry – in part due to calls for international boycotts<sup>19</sup> – and the possibility of a decline in natural gas exports, it remains yet to be determined whether manufacturing exports will return to pre-coup levels on a sustained basis.

**Agricultural exports — other than maize (Figure 33) — have recovered since mid-2021.** Nevertheless, agricultural exporters continue to be affected by a range of challenges such as increased logistics and input costs. In particular, an increase in freight charges significantly impacts the viability of agricultural exports as their profitability remains highly contingent on freight rates. On the other hand, the kyat depreciation has likely supported the competitiveness of both agricultural and manufacturing exporters.

Figure 31: Major exports – manufacturing and agricultural exports picked up H2 2021



Source: CEIC and Ministry of Commerce

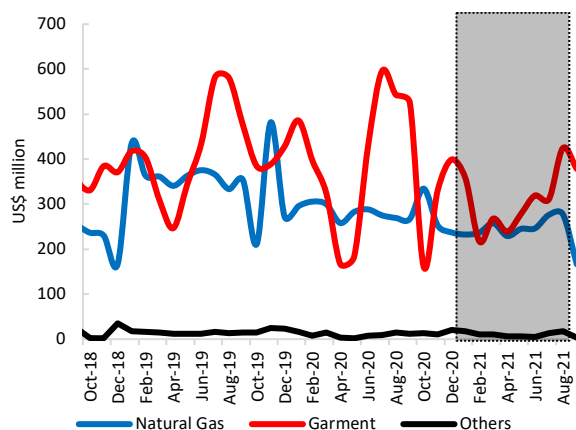
<sup>16</sup> Voice of Myanmar, December 14, 2021. "[Truck rental price for Chinese-Myanmar border has gone up.](#)"

<sup>17</sup> Myanmar Now, November 25, 2021. "[Limited trade to restart on China-Myanmar border.](#)"

<sup>18</sup> Radio Free Asia, July 8, 2021. "[China Closes Border with Myanmar amid COVID-19 surge.](#)"

<sup>19</sup> Frontier Myanmar, October 7, 2021. "[Garment workers face a fresh threat: a boycott.](#)"

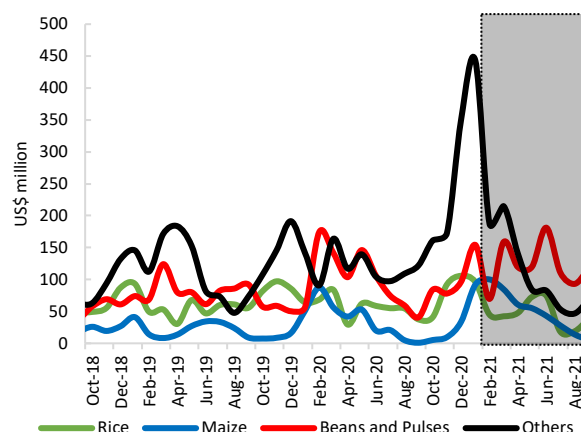
**Figure 32: A modest recovery of manufacturing exports was driven by an increase in garment exports**



Source: CEIC

Note: Data is available up to September 2021.

**Figure 33: Signs of recovery for agricultural products were observed**



**Other sub-groups of exports experienced a decline throughout H2 2021.** Among others, a decline in mineral products could be in part attributable to heightened security issues at major production sites such as Hpakant township in Kachin state in the aftermath of the February 2021 coup, in turn impacting gem production and mineral exports.<sup>20</sup> Marine (fishery) exports also declined by 10 percent due to border disruptions (especially for exports to China), increased logistics costs (for exports to Europe) and increased costs for inputs such as fishing nets.<sup>21</sup>

**Despite a significant increase in intermediate imports, overall imports have declined since the February coup, largely due to a fall in capital imports (Figure 34).** The substantial fall in capital imports is likely to reflect a significant decline in investment activities throughout 2021. On the other hand, intermediate imports have increased particularly strongly in recent months. Cut-make-pack (CMP) imports – accounting for about 30 percent of total intermediate imports – have trended upwards after falling to low levels in February (Figure 35). This is consistent with the recovery in garment exports over the same period. Reflecting overall weaker demand, consumer imports declined by 12 percent in H2 2021, compared with the same period last year. However, consumer imports were broadly stable when compared with the first half of 2021. Along with weaker demand generally, a large part of the overall decline in imports is likely to be driven by the depreciation of the kyat, which has raised import prices across the board. Recent steps to subject a large number of tariff lines to import license requirements are likely to exert further downward pressure on imports (Box 1).

<sup>20</sup> Al Jazeera News, April 22, 2021. "[Military coup clouds control over jade, gems in Myanmar.](#)"

<sup>21</sup> Global New Light of Myanmar, October 12, 2021. "[Myanmar aquaculture exports down by 8.6% in 2020-2021FY.](#)"

Figure 34: Intermediate imports picked up in H2 2021, but capital imports continued to decline

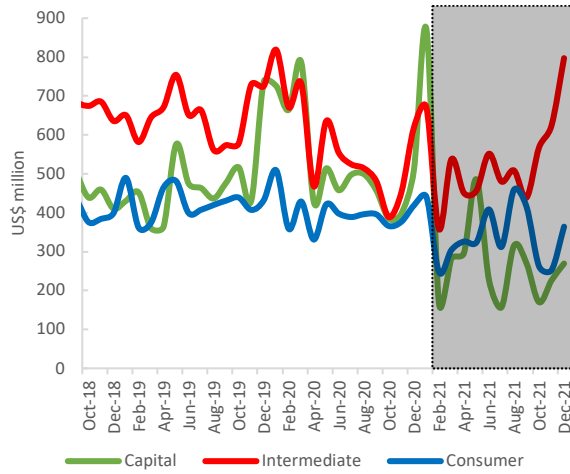
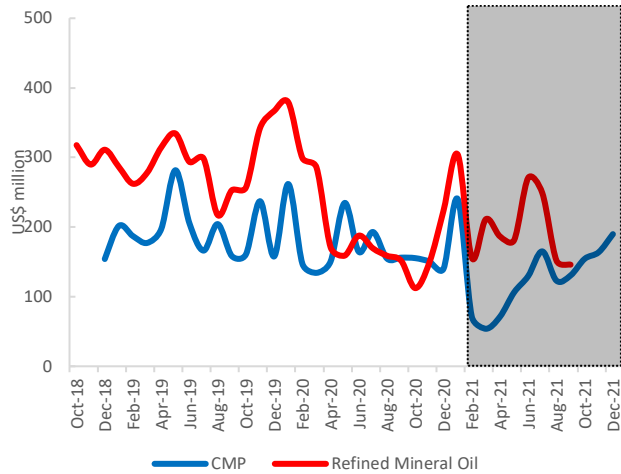


Figure 35: Trends of major intermediate imports



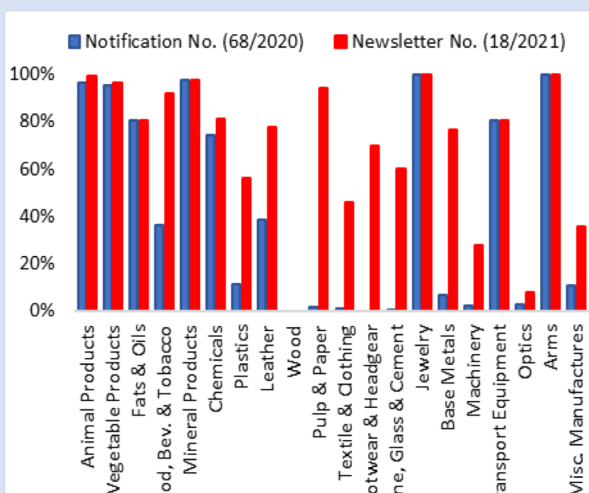
Source: CEIC and Ministry of Commerce

Note: Data for refined mineral oil is available up to September 2021.

**Box 1: Myanmar’s reversal of import license liberalization**

**Efforts in recent years to promote import license liberalization have reversed course in 2021.** From 2013 onwards, a series of reforms to liberalize import license requirements was implemented, with the result that only 35 percent of tariff lines were subject to import licenses as at December 2020. But in November 2021, the Ministry of Commerce (MOC) issued a newsletter no. (18/2021) adding 3,070 tariff lines to the current list of tariff lines subject to import licenses. As a result, a total of 7,001 tariff lines (or about 63 percent) are now subject to an import license starting from January 2022 (Figure 36). The policy reverses Myanmar’s previous efforts to shift from controlling trade towards facilitating trade and managing its associated risks.

Figure 36: Comparison of share of tariff lines subject to import license between two import policy interventions



Source: Ministry of Commerce

Figure 37: Myanmar import structure by product groups (as in HS section) in 2020



Source: World Integrated Trade Solution

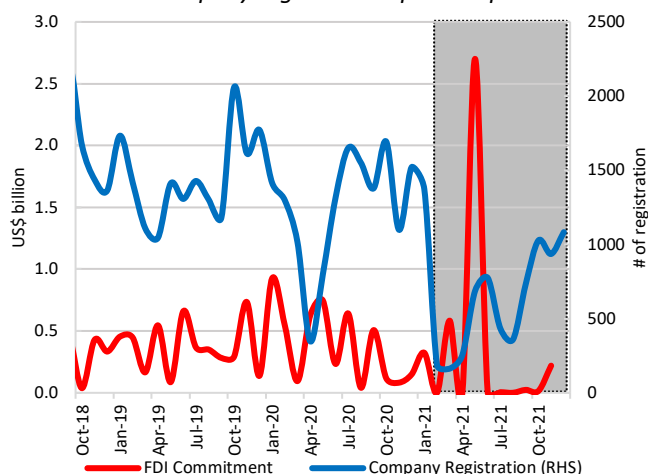
**The policy will increase trading time and costs, putting further upward pressure on import prices.** The moves may also affect Myanmar’s commitments to the WTO Trade Facilitation Agreement (WTO TFA) and attempts to improve trade facilitation. Twenty-eight percent of machinery items—accounting for 19 percent of total imports (Figure 37)—are now subject to import licenses under this policy, compared to 2 percent previously. Likewise, 46 percent of textile and clothing imports (1 percent previously), 77 percent of base metals (7 percent previously), and 92 percent of food, beverages, and tobacco products (36 percent previously) now require a license (Figure 36).

## E. Foreign Direct Investment

**FDI commitments remained lower in the second half of 2021 – with a continued suspension of operations by international firms.**

**Foreign direct investment (FDI) commitments remained low in H2 2021 (July to December), however the number of company registrations picked up** (Figure 38). Between July and November 2021, FDI commitments amounted to US\$267 million with 17 permitted projects – with the USD amount about 5 times lower than the same period last year. US\$220 million of FDI commitments were made in November representing the first noticeable pickup since May. By industry, manufacturing and construction dominated total FDI commitments with 40 percent (or US\$108 million across 12 permitted projects) and 25 percent (or US\$65 million in one project) respectively, followed by transport and communication (with 17 percent) and hotels and tourism (with 11 percent) (Figure 39). China was the top investor in FY22 with 35 percent (or US\$95 million) of the total FDI commitments in 7 projects, followed by Singapore (with 31 percent or US\$82 million), and the Republic of Korea (with 20 percent or US\$53 million). The number of company registrations has steadily picked up since September 2021, but has remained 67 percent lower compared to the same period last year.

Figure 38: FDI commitments remained low in H2 2021; but company registrations picked up



Source: CEIC and DICA

Note: FDI data is available only up to November 2021

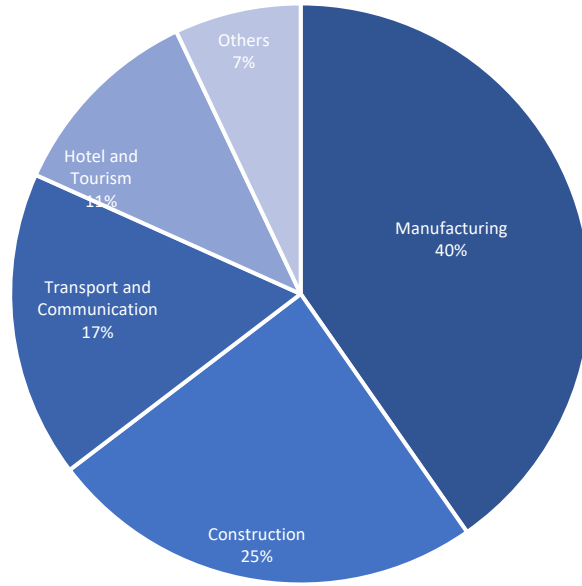
**International firms continued to announce suspension or termination of their operations or otherwise changed their investment plans for pipeline projects – implicating a deteriorating investment and business climate.** India's Adani Ports and Special Economic Zone Limited announced a withdrawal of its plan to build a container port in the military-owned Ahlone port in Yangon by June 2022.<sup>22</sup> Several other noticeable suspensions or divestments in H2 2021 include the ceasing of operations by German retailer Metro, Switzerland's hotelier Kempinski, and British American Tobacco (Table 2). Moreover, Telenor agreed to sell 51 percent of its shares in Wave Money, a mobile financial service company, to Yoma Strategic Holdings in January 2022 – following an announcement that it would sell its Myanmar operations to Lebanese M1 Group in July 2021.<sup>23</sup> In January 2022, TotalEnergies has announced that it will withdraw from the Yadana field and from the Moattama Gas Transportation Company (MGTC) – which operates the pipeline that transports gas from the Yadana field to Thailand – both as operator and as shareholder, and without any financial

<sup>22</sup> The Irrawaddy, October 28, 2021. "[Indian Company Drops Plan to Develop Myanmar Military-Owned Port.](#)"

<sup>23</sup> This sale is pending regulatory approval.

compensation.<sup>24</sup> Foreign firm departures are likely to mean a reduction in employment and new job creation, as well as a decline in access to foreign expertise and technology. With the uncertain business environment, actual FDI inflows – which amounted to just under half of total FDI commitments in the period between 2014 and 2020 – are expected to be lower throughout 2021.

Figure 39: FDI commitments share by industry in H2 2021



Source: CEIC and Ministry of Commerce

Note: Data is available up to September 2021 for major capital impor

<sup>24</sup> TotalEnergies. January 21, 2022. [“Total Energies withdraws from Myanmar”](#).



Table 2: List of firms suspending business operations in Myanmar in the aftermath of the February 2021 coup

Company/Individual	Origin	Industry	Description
<a href="#">Kirin Holdings Co. Ltd</a>	Japan	Food and Beverage Products	Kirin Holdings Co. Ltd, Japanese drink giant terminated its joint venture (JV) partnerships with the military controlled Myanmar Economic Holding Ltd (MEHL). The company holds 51 percent of Myanmar Brewery and Mandalay Brewery through the JV partnerships.
<a href="#">Lim Kaling</a>	Singapore	Food and Beverage Products	Lim Kaling announced intentions to withdraw his investment from Virginia Tobacco Group, where he is a minority shareholder through RMH Singapore Pte LTD, which owns 49 percent of the firm, with the remainder owned by Myanmar Economic Holding Ltd (MEHL).
<a href="#">Amata Corporation</a>	Thailand	Real Estate	Thailand's Amata corporation, a real estate developer, suspended its US\$1 billion real estate project in Myanmar.
<a href="#">Woodside</a>	Australia	Mining and Quarrying	Woodside suspended its operations and fully demobilized its offshore exploration drilling team in Myanmar.
<a href="#">Petronas</a>	Malaysia	Mining and Quarrying	PC Myanmar limited (PCML), a subsidiary of Petronas, declared Force Majeure at its Yetagun field due to depletion of gas production. PCML has temporarily halted production at the field until further notice. It holds 40.9 percent of Yetagun gas project, along with Myanma Oil and Gas Enterprise (20.5 percent), Nippon Oil Exploration (19.3 percent), PTTEP (19.3 percent).
<a href="#">Électricité de France (EDF)</a>	France	Mining and Quarrying	EDF suspended a US\$1.5 billion hydropower dam project – still at an early stage and operated by a consortium including EDF, the Japanese Marubeni conglomerate and Ayeyarhinthar, a local conglomerate.
<a href="#">AEON</a>	Japan	Retail and Wholesale	AEON postponed construction of a shopping mall in Myanmar. The project, worth US\$180 million, was approved last year. It is a joint-venture partnership with Japanese AEON owning 70 percent.
<a href="#">Toyota</a>	Japan	Manufacture of Motor Vehicle	Toyota postponed the plan to open a new plant in Myanmar. It announced a plan to build the US\$52.6 million production plant in 2019 and it had planned to commence operations of its first production plant in the country in February 2021.
<a href="#">Sembcorp</a>	Singapore	Real Estate/Industrial Estate	Sembcorp suspended an industrial park project worth US\$230 million. The project received investment approval in 2020, but the company will wait until the political situation stabilizes before proceeding.
<a href="#">Hongkong and Shanghai Hotels</a>	Hong Kong	Accommodation	Hongkong and Shanghai Hotels, operator of the Peninsula chain, suspended construction of the Peninsula Yangon project for a year. The project is worth US\$130 million. Hongkong and Shanghai Hotels owns 70 percent of the project.
<a href="#">Telenor</a>	Norway	Telecommunications	Telenor announced that it reached an agreement to sell its entire stake of its Myanmar operations to

			Lebanese M1 group for US\$105 million (still pending regulatory approval)
<a href="#">KOI</a>	Taiwan	Food and Beverage Service	KOI bubble tea, a Taiwan-based bubble tea shop, closed its operations in June 2021.
<a href="#">Bridgestone Corporation</a>	Japan	Manufacture of rubber products	Bridgestone Corporation, the world's largest tire and rubber company, halted its operations in July 2021.
<a href="#">Auntie Anne's</a>	United States	Food and Beverage Service	Auntie Anne's, a US pretzel retailer, closed its branches in August 2021 after two years in the country.
<a href="#">Metro</a>	Germany	Retail and Wholesale	Metro, a German retail and wholesale giant, announced to cease its operation starting from October 2021.
<a href="#">Myanmar Metals</a>	Australis	Mining and Quarrying	Myanmar Metals, an Australian-based mining company, announced to sell its 51 percent stake in Bawdwin project.
<a href="#">VPower Group</a>	Hong Kong	Mining and Quarrying	Hong Kong listed Vpower Group announced it was pulling out of two of its nine power projects.
<a href="#">British American Tobacco</a>	United Kingdom	Food and Beverage Products	A global cigarette giant, British American Tobacco, announced to cease its operations by the end of 2021.
<a href="#">Kempinski Hotels</a>	Switzerland	Accommodation	Kempinski Hotels, a luxury hotel management company headquartered in Geneva, Switzerland, closed its operations in Nay Pyi Taw in October.
<a href="#">Adani Ports and Special Economic Zone Limited</a>	India	Logistics	In October 2021, Adani announced to withdraw its plan to build a container port in the military owned Ahlone port in Yangon by June 2022.
<a href="#">Telenor</a>	Norway	Telecommunications	Following its announcement to exit Myanmar's telecommunications industry in July 2021, Telenor also agreed to sell 51 percent of its share in Wave Money, a mobile financial service company, to Yoma Strategic Holdings in January 2022.
<a href="#">TotalEnergies</a>	France	Energy	Announced it would withdraw from the Yadana field and from MGTC as an operator and a shareholder in January 2022.

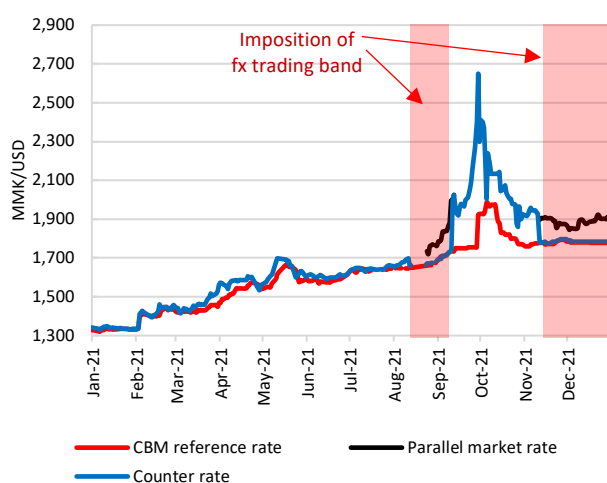
## F. Monetary and exchange rate developments

### The kyat depreciated sharply in September before subsequently stabilizing.

The Myanmar kyat (MMK) has further weakened against the US dollar (USD) in the second half of 2021 and exhibited high levels of volatility through this period (Figure 40). As at end-December, the official CBM kyat reference rate had depreciated by 9 percent against the USD since end-June, and by 25 percent since end-January. In September and October, the kyat depreciated sharply, with the reference rate falling to a low point of nearly 2000 MMK per USD in early October, before recovering toward the end of the year (Figure 41). The sharp spike lower came after pressure had built in the foreign exchange market, with a parallel market for US dollars emerging following CBM's imposition of a foreign exchange trading band in early August, under which banks and money changers were required to limit USD buying and selling prices to within 0.8 percent of the official reference rate (Figure 40, Table 3). Following the subsequent removal of this trading band in September, the reference rate weakened, and rates available in the market depreciated sharply (Figure 42). Domestic gold prices also rose sharply in September as concerns about the weakening kyat and political instability increased, with households and businesses opting to buy gold as a store of wealth.

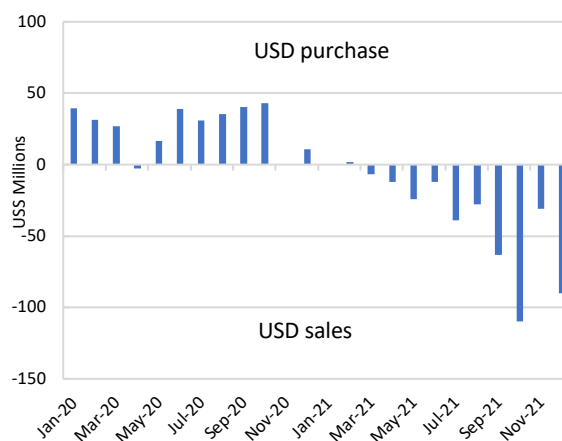
**CBM adopted several measures aimed at slowing down the kyat depreciation through this period** (Table 3). Restrictions on passenger car imports were imposed in late September, following the imposition of import bans on several other products earlier in the year. CBM sales of US dollars notably increased: between September and December 2021, USD 294 million was sold, almost triple the amount sold in the previous four months. These sales – at the relatively favorable kyat reference rate – appear to have been directed at importers of critical goods such as fuel and cooking oil. In September, CBM issued a notification instructing exporters to sell/convert, at the prevailing exchange rate, all their unused export income received in foreign currency to Myanmar Kyat at authorized banks within four months of the receipt of such export income. This period was subsequently reduced to 30 days in October. Imposing FX surrender requirements on exporters, while at the same time providing preferential access to FX liquidity to importers, has the potential to dampen the necessary trade adjustment to the exchange rate depreciation. The CBM also allowed authorized dealer license holding banks and non-bank financial institutions to buy and sell Chinese yuan and Japanese yen for international payments and settlements. It has already allowed the US dollar, Euro, Singapore Dollar, Baht, and Ringgit to be traded in the local exchange market.

Figure 40: Myanmar kyat depreciated sharply against the US dollar in September 2021



Source: The CBM and Money Exchangers

Figure 41: ... and USD sales in FX auctions continued



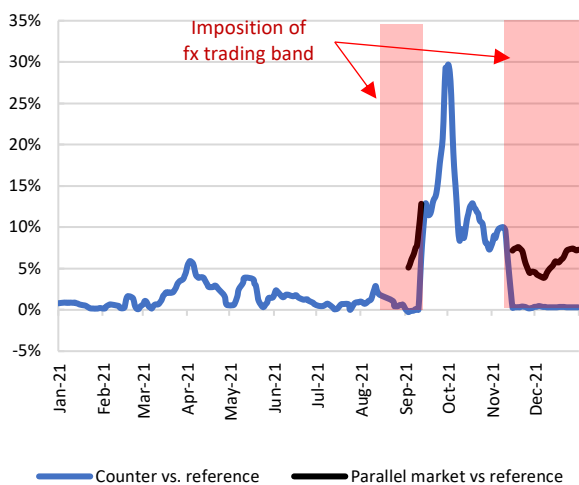
Source: The CBM

**Market rates and the kyat reference rate appear to have subsequently stabilized, though a parallel market for USD has emerged** with the reimposition of a foreign exchange trading band (with tighter +/- 0.5 percent limits) in November. As a result, widely advertised counter rates have become aligned with the reference rate, but parallel market rates for US dollars are around 4 to 8 percent higher, indicating persistent exchange rate pressures. Even in the less favorable parallel market, anecdotal reports suggest that access to US dollars remains limited.

**Overall, the regulated official exchange rate seems to be misaligned.** The regulated exchange rates available in Myanmar do not appear to be reflective of supply and demand for foreign currency, resulting in persistent shortages of US dollars and the emergence of a substantial gap between the official reference rate – with only selected parties benefitting from this more favorable rate – and rates actually available on the market.

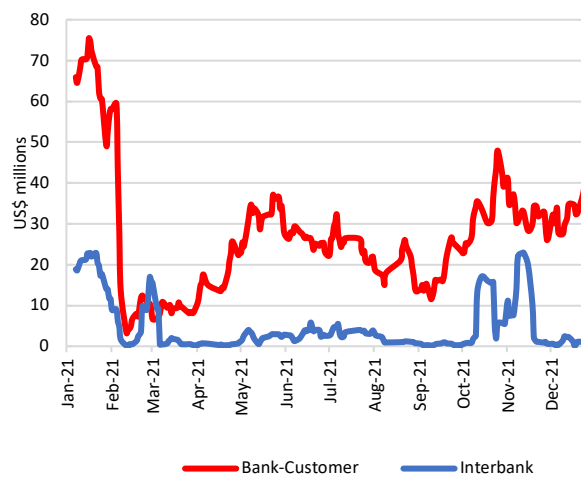
While the administrative control measures imposed by the CBM are intended to ease pressure, the resulting parallel rates act to distort both the FX market and trade activity and have the potential to exacerbate imbalances rather than correct them.

**Figure 42: The gap between the reference rate and market rates continued to be volatile**



Source: CBM and Money Exchangers  
The data reflects 5-day moving average.

**Figure 43: ...while US dollar transactions have increased moderately**



Source: CBM  
The data reflects 5-day moving average.

**US dollar transactions generally increased in the second half of 2021, compared to the period between February and June, but remained below pre-coup levels** (Figure 43). Bank-customer transactions peaked in late October 2021, in part because of the further limits imposed on US dollar denominated export earnings. But limits placed on US dollar purchases by money exchange operators and on US dollar withdrawals by banks have likely constrained overall transactions. Interbank transactions have remained relatively low, apart from a pickup in activity in October and November 2021.

Table 3: Actions taken to restrict imports and manage exchange rates

Apr 12, 2021	Restricting food product imports	<ul style="list-style-type: none"> <li>The Ministry of Commerce (MOC) issued a newsletter no. (6/2021) to impose temporary import bans on beverages, instant coffee, coffee mix and tea mix, and condensed milk and evaporated milk through land borders – effective from May 2021.</li> </ul>
May 8, 2021	Restricting motorcycle imports	<ul style="list-style-type: none"> <li>The MOC imposed a temporary import ban on motorcycles through land borders starting from May 2021.</li> </ul>
June 4, 2021	Restricting consumer products	<ul style="list-style-type: none"> <li>The MOC imposed a temporary import ban on soaps, detergents, and toothpaste through land borders.</li> </ul>
Aug 3, 2021	Reinstating managed float exchange rate, keeping maximum difference within +/- 0.8 percent	<ul style="list-style-type: none"> <li>The CBM reinstated a managed float exchange rate on August 3 to stabilize the exchange rate. Under this direction, banks and money changers must limit USD buying and selling prices to within 0.8 percent of the reference rate.</li> </ul>
Sep 3, 2021	Imposing limit on duration of keeping export earnings at banks (within four months)	<ul style="list-style-type: none"> <li>The CBM stipulates that unused export income in foreign currency to be sold within four months of receipt: exporters must sell/convert –at the prevailing exchange rate – all their unused export income that is in foreign currency to Myanmar Kyat with a Myanmar bank holding an authorized dealer license issued by the CBM within four months of the receipt of such export income.</li> </ul>
Sep 10, 2021	Reversing course abolishing a managed float	<ul style="list-style-type: none"> <li>The CBM abolished a managed float system, announced on September 3, following the US dollar exchange rate market (almost) came to a halt. This order replaces the one the Central Bank issued on August 3, 2021.</li> </ul>
Sep 30, 2021	Restricting passenger car imports	<ul style="list-style-type: none"> <li>Importing passenger cars with import permits by civil servants, car showrooms and vehicle dealers has been suspended - effective from October 1, 2021.</li> </ul>
Oct 3, 2021	Imposing further limits on export earning USD	<ul style="list-style-type: none"> <li>The CBM issued a notification no. (35/2021) repealing notification no. (33/2021) relating to the conversion of export proceeds into Myanmar Kyat and stipulating that export proceeds must now be utilized or divested within 30 days.</li> </ul>
Oct 12, 2021	Further relaxations on Chinese yuan and Japanese yen	<ul style="list-style-type: none"> <li>The CBM has officially allowed the trading of the Chinese yuan and the Japanese yen to address the current shortage of US dollars. The CBM issued a directive on October 12, allowing the Chinese yuan and the Japanese yen to be traded in Myanmar. In addition, both Myanmar Kyat and Chinese Yuan are now acceptable payments for land border trade.</li> </ul>
Nov 10, 2021	Revisiting managed float exchange rate, keeping maximum spread within +/- 0.5 percent	<ul style="list-style-type: none"> <li>On August 3, the CBM has removed the free spread range of US dollar. According to the new announcement, banks and money changers must keep a maximum difference of 0.5 percent between buying and selling prices of the USD.</li> </ul>
Nov 26, 2021	Reversal of import license reform	<ul style="list-style-type: none"> <li>In November 2021, the MOC issued a newsletter no. (18/2021) which added 3,070 tariff lines to the current list of tariff lines subject to import licenses. A total of 7,001 import items or tariff lines (or about 63 percent of total tariff lines) are subject to an import license from January 2022.</li> </ul>

## G. Financial sector developments

### Banking sector vulnerabilities and cash constraints persist.

**The key balance sheet vulnerabilities in Myanmar’s financial sector have been exacerbated by the aftermath of the February 2021 coup, with implications for financial stability.** As Table 4 illustrates, the performance of Myanmar’s banking sector in terms of the financial stability indicators was weak even before the coup, with low profitability (i.e. ROE and ROA) metrics, high non-interest expenses as a share of gross income and low capital adequacy ratios. Discussions with industry representatives indicate that non-performing loans and delinquency rates rose substantially in the September quarter 2021 due to the COVID-19 shock. With a substantial outflow of bank deposits since the February coup – due in large part to a loss of trust in the formal banking system and a move into safe haven assets such as US dollars, gold, and real estate – loan to deposit ratios are also reportedly increasing. These trends are likely to limit the ability of the banking sector to intermediate and provide credit in the period ahead.

*Table 4: Financial Soundness Indicators for Banks*

	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1
Return on Assets	-0.4%	0.2%	0.6%	0.2%	0.2%
Return on Equity	-5.6%	2.9%	8.1%	1.9%	2.1%
Interest Margin to Gross Income	57.0%	65.1%	52.7%	61.3%	61.5%
Noninterest Expenses to Gross Income	142.7%	83.1%	72.0%	62.6%	71.7%
Liquid Assets to Total Assets	47.0%	48.2%	49.7%	51.2%	49.6%
Liquid Assets to Short-Term Liabilities	59.0%	59.4%	61.0%	62.7%	62.7%
Capital to Assets	6.9%	7.7%	7.8%	8.0%	9.0%

Source: CBM, Quarterly Financial Statistics Bulletin, 2021 Volume I (latest available).

**Physical cash constraints have persisted in the second half of 2021, though there are some signs that they are easing.** Customers’ ability to make withdrawals is still restricted, and a range of withdrawal limits remain in place (some of which govern withdrawals of payments received from sales). Overall, the CBM’s provision of cash to the banking sector appears to have fallen short of what has been required to meet the elevated demand for cash withdrawals. This has led to the development of many informal cash withdrawal services, which charge additional fees (up to 8 percent) to customers who seek to withdraw cash from their accounts. But there are some signs that these constraints may be easing. Three major lenders removed advance booking requirements to withdraw cash in early November: customers of these banks can withdraw up to MMK 1 million per week without the need to make an appointment in advance. The CBM has also taken some steps to boost the cash position of banks. Businesses have reportedly opened and used new ‘flexi’ accounts, which the CBM announced could be made available to bank customers from May 2021 onwards, and which are not subject to the withdrawal limits that apply to legacy accounts. In November, a CBM directive instructed lenders to keep a quarter of the 3 percent minimum reserve requirement as cash in hand, with the remainder to be held at the central bank (the minimum reserve requirement had previously been reduced from 3.5 percent to 3 percent in May).

**In early November, the CBM announced new rules for transactions, ordering that all payments over MMK20 million (equivalent to around USD 11,000) must be made through digital payment methods** (including mobile banking, internet banking, card payment, or account transfer). The rules allow closer monitoring of transactions while also reducing the need for physical cash. However, it is unclear whether or how the rule is being enforced.

**In response to these restrictions and constraints on physical cash availability and use, there has been an increase in both card and digital payments, largely driven by activity in urban areas.** Since mid-2021, the volume and value of digital payments have increased markedly. While the number of ATM transactions fell sharply in the months following the coup, the increase in the number of point of sale (card) transactions has more than offset this decline. Similarly, after declining in February, the total number of e-commerce transactions has increased strongly since March.

**Microfinance institutions (MFIs) are being affected by liquidity constraints and a decline in asset quality.** There are reports that field staff are being prevented from coming to work, customers are missing repayments, and that local banks are trapping MFIs' funds that otherwise would be repaid to lenders or distributed as local loans or staff salaries. Anecdotal evidence indicates that asset quality in the MFI sector has deteriorated significantly since the coup, with the larger MFIs experiencing NPL rates of around 15 percent and smaller ones often in excess of 20-25 percent. According to key informant interviews with major agriculture-focused MFIs, repayment rates are deteriorating while portfolio at risk ratios are increasing. Some MFIs have started to arrange to reschedule loan repayments. Due to financial and operational difficulties, some MFIs have also started to scale down their operations and to reduce their staff.

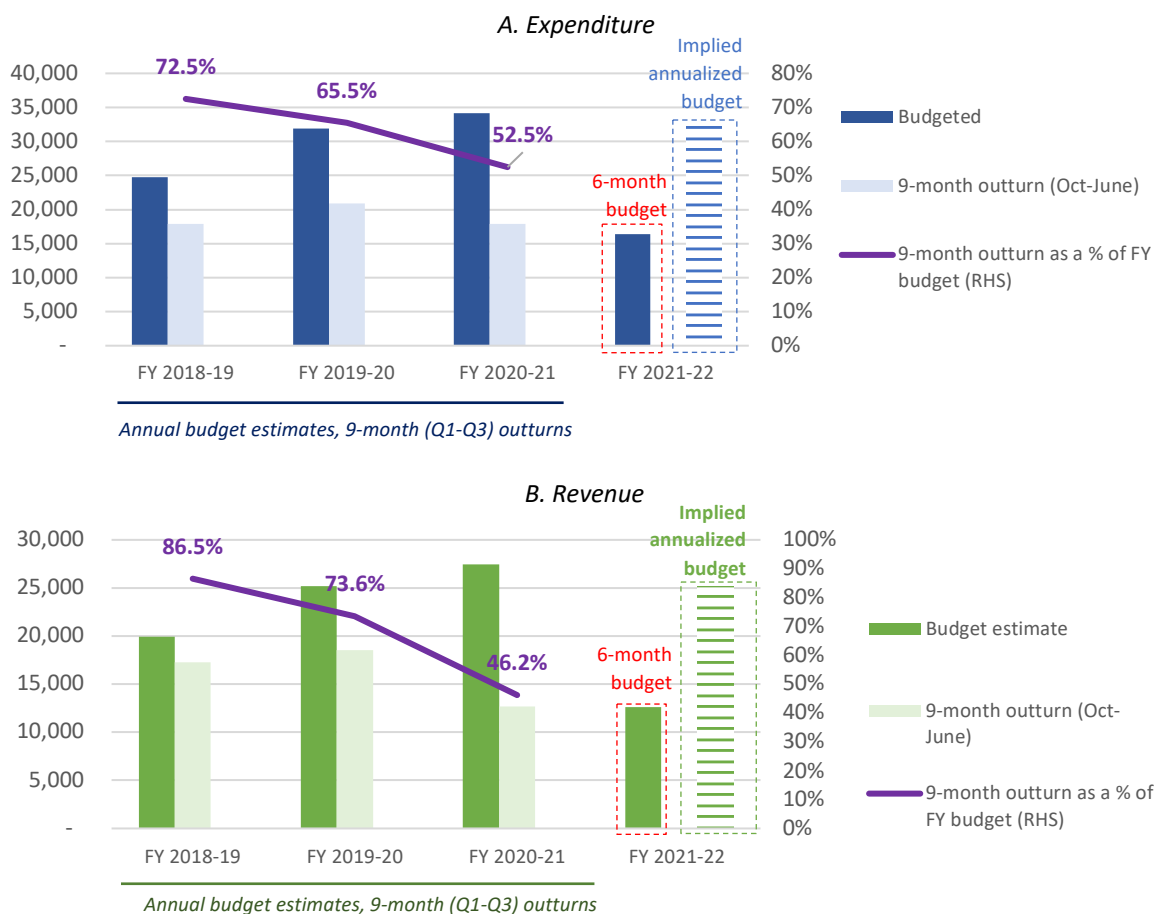
## H. Fiscal developments

**FY2021 fiscal data indicate that budget outturns have worsened significantly.**

**Expenditure and revenue outturns over the 9-month period between October 2020 and June 2021 were just 53 and 46 percent of the full-year budget projections respectively** (Figure 44). This performance is significantly weaker than the 75 percent that might be expected if full-year budget projections were on track to be met, and substantially below that in previous years. These outturns have been affected by developments since February, with the March and June quarters particularly weak in terms of revenue mobilization. In the June 2021 quarter – the first full quarter since the February coup – revenue was 35 percent weaker than a year earlier in nominal kyat terms (just 14 percent of the full year budget estimate), while spending was 14 percent weaker (around 21 percent of the full year budget). In these circumstances, the recently released budget projections for the six months ended March 2022, which are similar in size to the FY2020 and FY2021 budgets, seem unlikely to be met (Figure 44, see also Part II: Outlook and Risks).

Figure 44: Budget outturns and estimates

First 9 months of fiscal year (October to June), MMK billion



Source: MOPF <https://www.mopf.gov.mm/>; WB Staff estimates  
 Note: Implied annualized interim budget assumes doubling of the 6-month interim budget.

**Tax revenue has fallen due to the shrinking economic base and the non-payment and non-collection of taxes.**

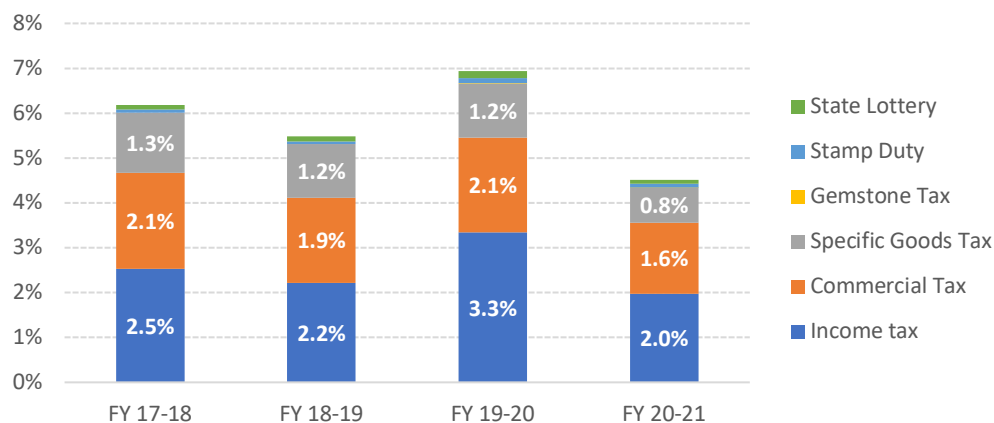
For the full year FY2021, tax collection is reported to have dropped to MMK 4.7 billion (4.5 percent of GDP), down from MMK 7.3 billion (6.9 percent of GDP) in FY2020 (Figure 45). This translates to a 35 percent decline in nominal kyat terms. This would imply that tax revenues have declined to 28 percent of total revenues, down from 31 percent in FY2019.

Much of this decline can be attributed to the overall contraction in the economy, but there has also been a substantial increase in the share of firms reporting not paying taxes. In the October 2021 firm survey, only 18 percent of firms reported that they paid taxes to authorities in the previous 6 months, down from 52 percent in the 6 months prior to February 2021. The share of large firms reporting paying taxes fell from 84 to 55 percent. Among all firms reporting a decrease in tax payment, the amount of tax paid decreased by 65 percent when compared to last year.



**Tax payments and ease of regulatory requirements have declined since February 2021.** In the October 2021 firm survey, 39 percent of firms found filing and paying taxes more difficult since February 2021, and 36 percent of firms experienced more difficult customs clearance and customs payment. A greater proportion of medium-sized firms than large firms reported a worsened experience of paying taxes.<sup>25</sup> This difference could be explained by the presence of a more capable Large Taxpayers Office (LTO) in Yangon but nonetheless suggests a possible worsening of tax administration capacity, which would mark a reversal of progress after years of reform gains in tax administration.

Figure 45: Tax collection, % of GDP



Source: IRD (MOPF); WB Staff estimates

**Non-tax revenue has also declined, due to a drop in electricity bill collection and a decrease in gas export earnings.**

**Non-tax revenue typically provides over two-thirds of total revenue, the large majority of which is derived from State Economic Enterprises (SEEs) in the energy sector.** In FY2020, oil, gas, and electricity SEEs were estimated to have contributed around half of Myanmar's total public revenue, most of which was non-tax revenue. The contributions consisted of: i) 37 percent from the operations of energy sector SEEs including Myanmar Oil and Gas Enterprise (MOGE), Yangon Electric Supply Corporation (YESC) and Mandalay Electric Supply Corporation (MESC), recorded as "other current receipts"; ii) 9 percent from SEEs' contributions to the Union Government (energy sector SEEs are the largest payers of this contribution); iii) 2 percent from petroleum royalties; and iv) around 5 percent from tax collections (most of which is paid by energy SEEs).

**Non-tax revenue collection is estimated to have fallen to MMK 11,709 billion (12.1 percent of GDP) in FY2021, down from MMK 15,280 (13.5 percent of GDP) a year earlier.** This is a 23 percent decline in nominal kyat terms. This decline is almost entirely explained by an estimated drop of 41 percent in SEE revenues, down to about MMK 5,200 billion from MMK 8,700 billion a year earlier.

<sup>25</sup> Large firms are defined as those with over 99 employees; medium firms with between 20-99 employees.

**Electricity bill collection has reportedly fallen since the coup, having already weakened as a result of reduced demand and COVID-19 related tariff reductions in 2020.** The fall in bill collection has been partly attributable to widespread refusal to pay electricity bills, and partly due to a lack of staff – including meter readers and bill collectors – at the MOEE. Many are participating in the CDM or reportedly fear reprisals for facilitating bill payments, while others have been dismissed. It has been estimated that as of March, MOEE was collecting MMK 100 billion (around USD 60 million) less per month than before the coup, with the bill collection rate only 2 percent in Yangon and 3 percent in Mandalay.<sup>26</sup> Other estimates suggest that MOEE has failed to recoup as much as MMK 2 trillion in the seven months after February 2021.<sup>27</sup> To clear the collection arrears, the authorities have started cutting off power to factories, workshops, hotels, and businesses that have refused to pay their electricity bills.<sup>28</sup> Stricter enforcement could help boost collection but may also contribute to a further deterioration in economic activity if electricity cuts persist.

**Oil and gas revenues were likely more resilient in FY2021, although gas export earnings, which account for a significant portion of fiscal revenue, fell by 14 percent from FY2020 levels.** FY2021 earnings are estimated to be about US\$3 billion, compared to US\$3.5 billion in FY2020, according to the figures reported by the Ministry of Commerce. This could imply a corresponding impact on overall oil and gas revenues in FY2021, although the trend in revenue streams including royalties, tax payments, and other dividends and profits is not clear.

#### Spending outturns also worsened in FY2021.

**In the December 2020 and March 2021 quarters, spending was 7 and 21 percent weaker than a year earlier in nominal kyat terms, or around 16 and 15 percent of the annual budget projection respectively.** Execution challenges during the first quarter were likely driven by the second wave of COVID-19 in late 2020. In the March quarter, spending was most likely affected by the immediate aftermath of the February coup. Spending picked up in the June quarter in nominal kyat terms but remained below trend, 14 percent weaker than a year earlier. Assuming similar performance in the September quarter, the full year FY2021 spending outturn is projected to be more than 25 percent below the total budget for the year, with this gap much greater than the typical deviation in recent years of under 10 percent.

#### Overall, the dual shocks in FY2021 are likely to have widened the fiscal deficit.

**With revenue declining by more than spending, the fiscal deficit is projected to have increased.** The FY2021 deficit is estimated to reach 8.8 percent of GDP, larger again than the COVID-affected 6.6 percent in FY2020 and significantly above the fiscal anchor of 5.0 percent of GDP (Figure 46).

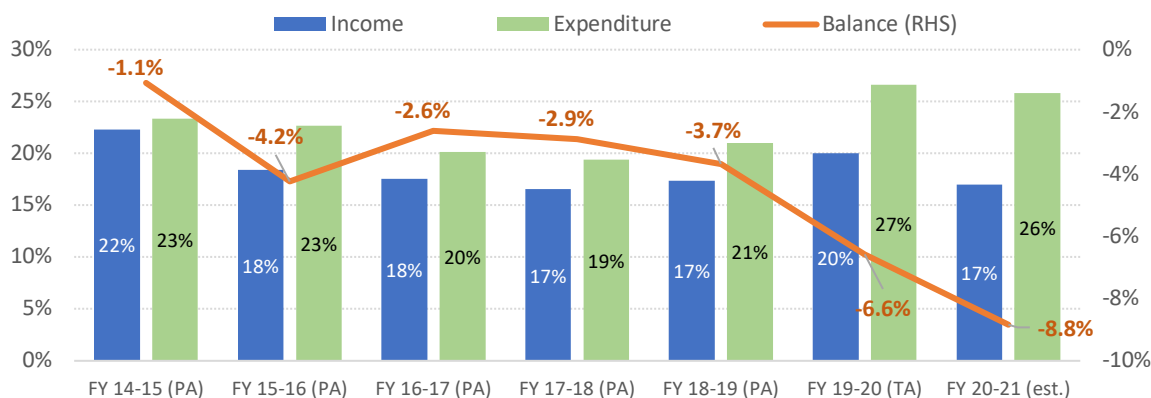
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<sup>26</sup> Independent Economists for Myanmar (IEM), 14 July 2021. “Myanmar’s Electricity Sector After the Coup”.

<sup>27</sup>Radio Free Asia, September, 15 2021. [“Electricity Bill Boycott Denies Myanmar Military US \\$1 Billion in Power Revenues Since Coup.”](#)

<sup>28</sup> The Irrawaddy, November 16, 2021. [“Myanmar Junta Cuts off Electricity to Local Businesses.”](#)

Figure 46. Aggregate fiscal balance  
2014-2021, % of GDP



Source: MOPF; WB Staff estimates; Note: PA = provisional actual; TA = temporary actual; est. = estimate

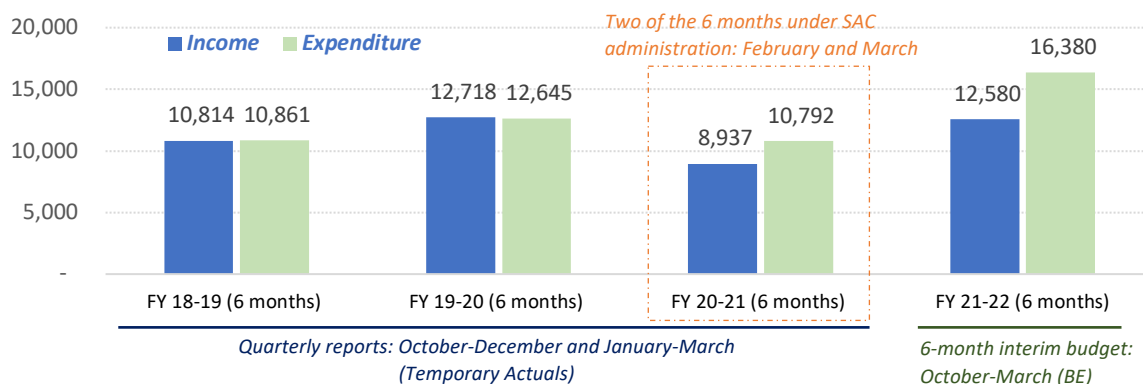
**Budget projections (covering the period from October 2021 to March 2022) appear optimistic given recent revenue and spending outturns.**

**The interim 6-month budget projects a widening fiscal gap, despite optimistic revenue forecasts.** Compared with the same period last year, spending is expected to increase by more than 50 percent, while revenue is expected to increase by more than 40 percent (Figure 47). In nominal kyat terms, the budget expects revenues will nearly match the 6-month period between October 2019 and March 2020. This appears unlikely considering the expected GDP contraction of 18 percent in FY2021 and worsening revenue collection. Even after accounting for this substantial increase in revenue, a MMK 3,800 billion deficit is still projected for the six-month period ending March 2022 (3.7 percent of GDP).

**The budget estimates are consistent with around 7 to 8 percent annualized deficit for the twelve months to September 2022, our projections for revenues and spending would imply a larger deficit of closer to 9 percent of GDP (see Part II: Outlook and Risks).** Historically, issues with budget under-execution have led to actual deficits being lower than budgeted.<sup>29</sup> However, in the year ended September 2022 the shortfall in revenue is likely to outweigh the impact of weak spending execution.

<sup>29</sup> Myanmar Economic Monitor (June 2020), World Bank.

Figure 47. Income and expenditure: FY19-FY21 actuals, FY22 budget  
First 6 months of fiscal year (October to March), MMK billion

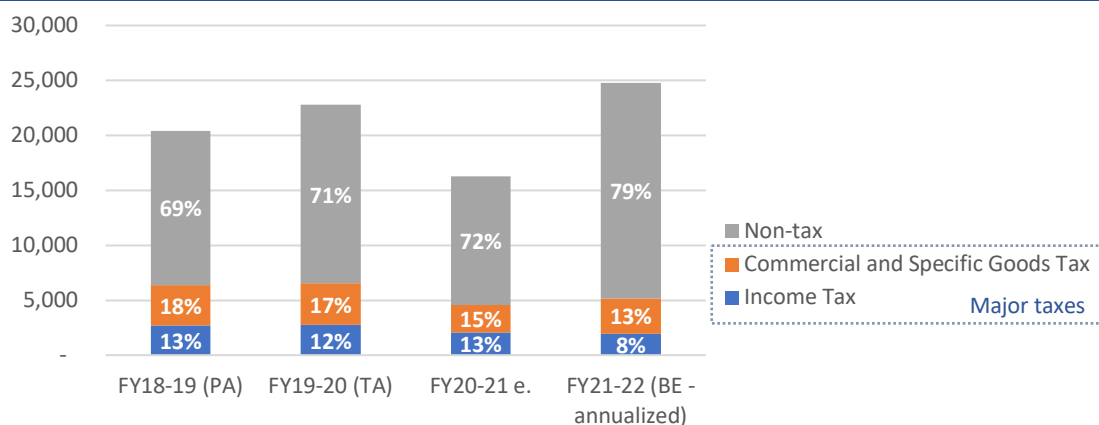


Source: MOPF <https://www.mopf.gov.mm/>; WB Staff estimates

Note: BE = budget estimates; SAC = state administrative council. Income reported in the quarterly reports includes collection by the central and subnational governments.

The projected drop in tax collection in the six-month budget increases reliance on non-tax revenue and SEEs, particularly in the energy sector (Figure 48). The six-month budget projects a shift away from tax revenues, with the tax shortfall to be partially offset by increased non-tax collection. Non-tax revenue is budgeted to account for nearly 80 percent of the budget, up from an average of about 70 percent over FY2019 and FY2020.

Figure 48. Revenue breakdown, by type  
MMK billion and % of total revenue



Source: MOPF <https://www.mopf.gov.mm/>; WB Staff estimates

Note: BE = budget estimates; PA = provisional actual; TA = temporary actual; e = estimate; SEE = state economic enterprise. The provisional actual figures are reconciled with bank statements from the Myanmar Economic Bank. Typically, changes between the TA and PA are not large. Income reported in the quarterly reports includes collection by the central and subnational governments.

Unlike in the previous years, the six-month budget does not clarify how the financing needs will be met. In recent years Myanmar has shifted away from direct Central Bank financing and towards treasury bills

and bonds.<sup>30</sup> Some financing of the deficit has also been aided by foreign assistance. However, since the February coup, the domestic securities market appears to be a much less viable source of deficit financing, while access to foreign financing is limited.<sup>31</sup>

### **Expenditure allocations to health and education have declined, at the expense of energy, defense, and transport spending.**

**The interim budget increased allocations as a share of budget towards SEEs; and across sectors towards energy, defense, and transport with reduced planned spending on health, education, and transfers to subnational governments** (Figure 49). Historical government spending data shows that ministries and departments of the Union government account for just over half of all spending, while 38 percent is spent through SEEs.<sup>32</sup> The interim budget has increased the allocation to SEEs by 3 percentage points (to 40 percent).

**Energy spending continues to dominate, taking up nearly a quarter of the budget with increases in allocation as a share of the budget.** The sector has seen the largest share increase, with its share of the budget increasing by 1.6 percentage points to nearly a quarter of the overall budget. Nearly all of it is budgeted under the Energy SEEs. The increase is likely to be at least partly attributable to exchange rate depreciation (see above) which increases the kyat value of spending, particularly for power purchase agreements and in defense.

**Allocations to health and education spending – which already comprised a relatively small share of the budget – have declined.** Collectively, they account for just over 10 percent of the six-month budget, down from 12.6 percent in FY2021. When interim budget amounts are annualized,<sup>33</sup> the budgeted nominal kyat amounts for ministries of education and health drop by around 19 and 30 percent from the 2020/21 FY budget estimates, respectively. These projected declines could be reflecting the large reduction in public service provision due to disruptions in both sectors across the country, and imply that access to and quality of core services are likely to remain poor (if not worsen).

**Budgeted defense spending is now larger than allocations to health and education combined.** Budgeted spending on defense has increased from 10 percent of the budget in 2020/21 FY to 10.7 percent in the interim 6-month budget. Allocations to the transport sector have also increased from 5.3 to 6.2 percent of the budget, which could in part reflect rising fuel prices.<sup>34</sup>

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<sup>30</sup> Central Bank financing has been held below 20 percent of total deficit financing, with a large proportion of the remaining financing needs filled by T-bill and T-bond auctions through a competitive domestic financing market.

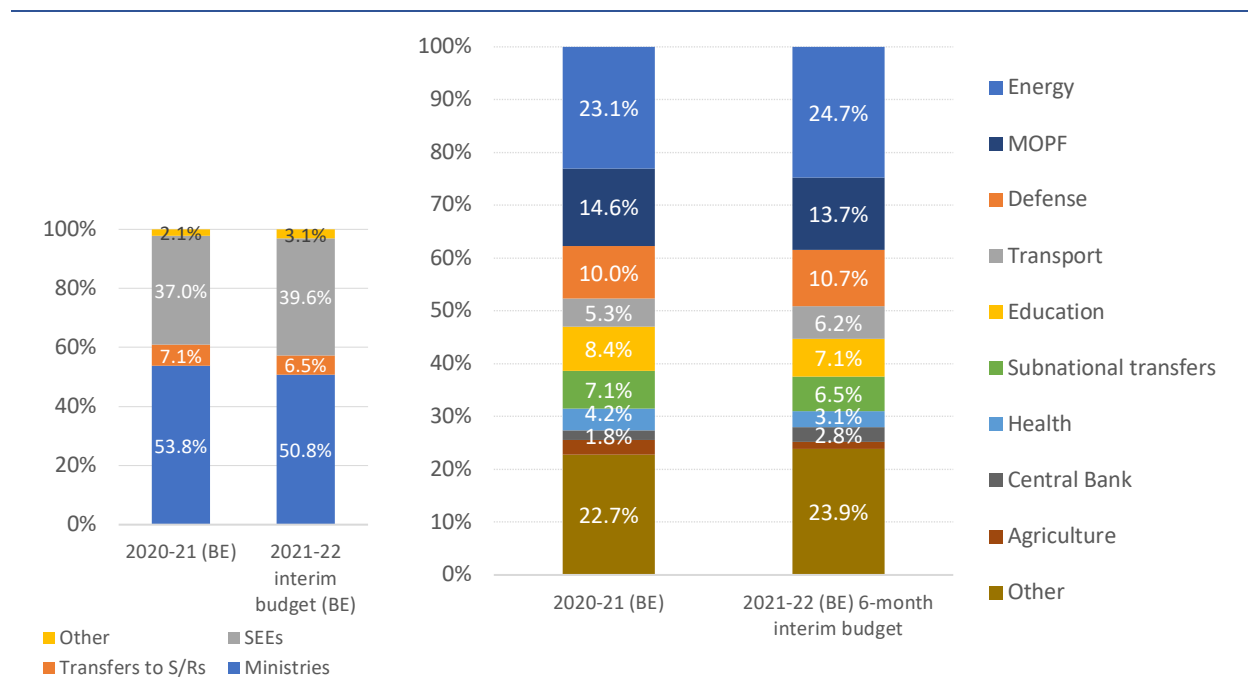
<sup>31</sup> Myanmar Economic Monitor (July 2021), World Bank.

<sup>32</sup> Myanmar Economic Monitor (July 2021), World Bank.

<sup>33</sup> Under the assumption that a full 12-month budget would be twice as large as the 6-month budget estimates.

<sup>34</sup> Fuel prices are up around 50 percent since the end of January (July estimate). Myanmar Economic Monitor (July 2021), World Bank.

**Figure 49: Budget allocations**  
By sector/ministry, % of total



Source: MOPF <https://www.mopfi.gov.mm/>; WB Staff estimates

Note: BE = budget estimates; MOPF = ministry of planning and finance; SEE = state economic enterprise; S/R = states/regions.

Transport and Energy sectors are predominantly SEE spending (80 and 90% of the sector respectively).

“Other” on the right-hand side graph includes ministries of labor, industry, natural resource & environment, information, border affairs, international cooperation, social welfare and resettlement, etc.

**The authorities’ capacity to execute planned spending will impact the actual share of spending by sector.** In recent years, spending plans have often come up against budget execution challenges, particularly on capital spending and service delivery. For example, despite increased budget allocations to the Ministry of Health and Ministry of Education in previous years, Myanmar was falling behind its regional peers in actual public expenditure on education and health, in per-capita terms and as a share of total expenditures. Budget execution challenges appear to have worsened following the February coup, against the backdrop of CDM-related impacts, increased conflict, and broader frictions in the economy.

## II: Outlook and Risks

**The outlook is consistent with some stabilization in economic activity, but at a very low level.**

Following the expected 18 percent contraction in FY2021, GDP is projected to increase by 1 percent in the year to September 2022, consistent with some stabilization, albeit at a very low level (Figure 50). The baseline forecast assumes that the emerging signs of stabilization in the manufacturing and services sectors continue through most of this period, and that the impacts of conflict on economic activity do not escalate substantially further from what has been observed in recent months. Growth in the industrial sector is forecast to be strongest, at just over 3 percent, with continued export demand for garments and natural gas and a modest resumption of construction work supporting overall activity. The service sector is also expected to grow marginally, while remaining constrained by low domestic demand, higher import prices, and financial constraints. On the other hand, the agriculture sector is expected to see a further contraction, with output in the twelve months to September 2022 being impacted by planting and growing decisions taken in FY2021 and ongoing constraints to production.

**The baseline forecast accounts for the expected surge in Omicron cases in the current March quarter which is likely to exacerbate demand- and supply-side weaknesses in the economy.** Institute for Health Metrics and Evaluation (IHME) projections indicate that reported case numbers are likely to rise rapidly from the second half of January and peak in late February – at levels exceeding the July 2021 peak – before declining through March and April.<sup>35</sup> However, hospital resource use and mortality rates are projected to be substantially lower. Nevertheless, as was the case in the third wave of COVID-19, stay-at-home measures and precautionary behavior are likely to restrict mobility, further weaken consumption and investment, and lead to additional disruptions to businesses’ operations and the supply of labor and inputs. External trade may also be constrained as border restrictions are reimposed. Overall, the disruption to economic activity is expected to reduce economic growth by around 2.5 percentage points in the March quarter, about half of the size of the modeled effect associated with the third wave of COVID-19 in FY2021.

Figure 50: Real GDP growth and contributions to real growth by sector

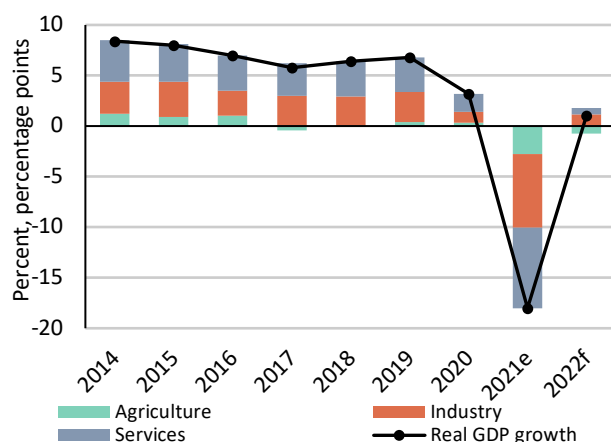
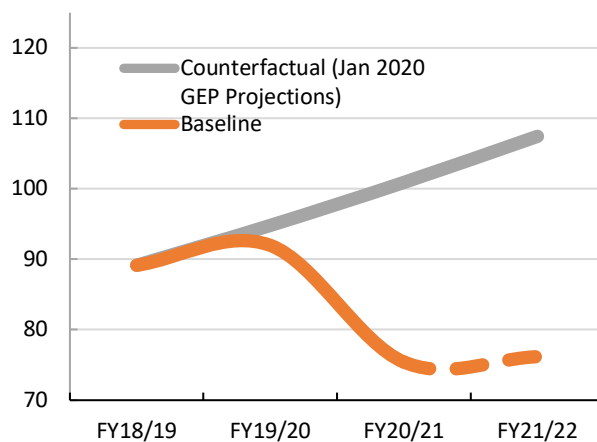


Figure 51: Real GDP (trillion of kyats)



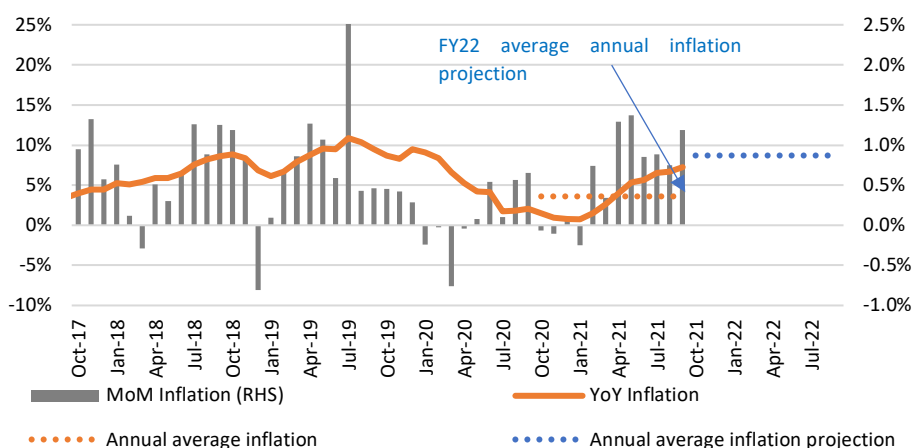
<sup>35</sup>IHME, January 21, 2021. [COVID-19 Projections, Myanmar](#).

The baseline forecast would imply that by September 2022, the economy is around 15 percent smaller than 2019 levels and about 30 percent smaller than it might have been in the absence of the coup and COVID-19 shocks (Figure 51). The absence of a strong rebound in the economy over the coming year will continue to be hugely damaging to livelihoods, which for many have been under severe strain since the beginning of the pandemic in early 2020. Employment is expected to have fallen by around 1 million since late 2020, with many more likely to have been forced to move to lower quality and/or less remunerative work as a result of recent shocks. Other workers will have retained their jobs but suffered a decline in their incomes due to reduced hours or wages. These labor market impacts will have had substantial effects on poverty, vulnerability, and food security. Already, the share of Myanmar’s population living in poverty is expected to have more than doubled compared to levels before COVID-19 hit. Inflation and credit/liquidity constraints will further compound food security risks, particularly for the poor who rely on limited savings.

**Price inflation will remain elevated.**

Inflation is expected to rise in the year ended September 2022 due to the lagged pass-through effects of the marked kyat depreciation in September 2021, and the lower level of the exchange rate in the December quarter 2021 (around 18 percent below FY2021 average levels). Assuming the official reference rate remains stable at current levels over the next nine months, and that the spread between official and parallel rates remains broadly unchanged, year-ended inflation is expected to peak in the current March quarter before easing through the rest of the year. This projection is also consistent with the manufacturing PMI data, which indicate that sharply higher input prices (largely due to kyat depreciation, higher fuel costs, and supply chain constraints) have been partially reflected in higher output prices in recent months, but that these pressures may have begun to ease towards the end of 2021. Offsetting these pressures has been the substantial fall in household incomes and employment which has contributed to much weaker demand, particularly for discretionary purchases. Overall, average annual inflation of around 9 percent is projected for the year ended September 2022, with year-ended inflation to remain at around 7 percent. Nevertheless, some prices – including food prices in some food-deficit areas of the country – are likely to increase more sharply, with adverse impacts on real incomes and livelihoods especially of poor households in these areas.

Figure 52: CPI inflation



Source: Central Statistical Organization, WB projections



### Balance of payments and exchange rate pressures are likely to persist.

**The current account is expected to be broadly balanced in FY2022, compared with the current account deficit of 2.4 percent of GDP reported for FY2021.** Imports are likely to remain weak due to the depreciated exchange rate and the ongoing implementation of import restrictions, while the recent recovery in exports is projected to continue. On the other hand, remittances are likely to remain weak. Ongoing weakness in foreign investment and financing from development partners will continue to put pressure on the balance of payments. Under the current exchange rate regime, shortages of US dollars are likely to persist given continued safe-haven demand, and the recent emergence of parallel markets for foreign exchange. There is also the risk of a further sharp exchange rate depreciation, due to a change in CBM policy or an additional loss of confidence in the kyat, which would have disruptive consequences in the short-term, akin to those observed in September and October 2021. Over the longer-term, however a greater degree of exchange rate flexibility is likely to be required to maintain external stability.

### Weak revenue collection will continue to impact public finances, with increased fiscal risks associated with SEEs.

**The fiscal deficit is expected to remain wide over the next six to twelve months, with revenue collection weak.** Both expenditure and revenue outturns have worsened over the 9-month period between October 2020 and June 2021 to around a half of the FY2021 full-year budget projections. The projections in the six-month budget – which are consistent with a sharp rise in spending and a recovery in revenue to pre-covid levels (in nominal kyat terms) – are therefore likely to be somewhat over-optimistic. Nevertheless, more realistic projections for revenues and spending are still likely to see the deficit for the year ended September 2022 at around 9 percent of GDP. This assumes revenue performance growing with nominal GDP and moderate improvement in budget spending execution.

**Poor tax performance could further exacerbate fiscal risks by increasing reliance on SEEs for revenues.** Energy SEEs may be subject to external pressure for sanctions. Following its support for such targeted sanctions, the French energy conglomerate TotalEnergies has announced its decision to withdraw from Myanmar where it was the largest partner and operator of the Yadana gas field since 1992.<sup>36</sup> Several operators have paused their exploration activities and planned projects. The threat of sanctions and similar withdrawals could impact the operation of oil and gas projects and public revenue flows over the longer term

**Public debt to GDP is projected to increase from 57.2 percent in FY21 to 63.5 percent in FY22.** Together with the projected fiscal deficit, debt amortization requirements are projected to see total gross financing needs of well over 10 percent of GDP in FY22. These gross financing needs will come against continued constraints in access to financing. Access to traditional sources of financing continues to appear heavily constrained. The participation of private banks in domestic debt issuances has been very low since February which indicates a possible return to a stronger reliance on CBM financing. This would unwind previous gains to reduce deficit monetization - CBM financing has consistently declined in recent years from a high of 61 percent of total domestic financing in FY16. Further reliance on monetization by the CBM would put additional pressure on the exchange rate and could cause inflation to accelerate, ultimately eroding the credibility of macroeconomic management.

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<sup>36</sup> TotalEnergies. January 21, 2022. [“Total Energies withdraws from Myanmar”](#).

Table 5: Economic data and FY22 projections

	FY17/18	FY18/19	FY19/20	FY20/21e	FY21/22f
Real GDP growth, at constant factor prices	6.4%	6.8%	3.2%	-18%	1%
Agriculture	0.1%	1.6%	1.7%	-12.5%	-3.2%
Industry	8.3%	8.4%	3.8%	-20.3%	3.3%
Services	8.7%	8.4%	3.4%	-18.9%	1%
Inflation (Consumer Price Index), year average	5.9%	8.5%	5.8%	3.6%	8.7%
Inflation (YOY) Year end	8.6%	9.5%	2.0%	7.3%	6.7%
Current Account Balance (% of GDP)	-4.7%	-2.8%	0.1%	-2.7%	0.7%
Fiscal Balance (% of GDP)	-2.9%	-3.7%	-6.6%	-8.8%	-9.0%
Public Sector Debt (% of GDP)	38.4%	37.5%	41.6%	57.2%	63.5%

### Downside risks – particularly those associated with COVID-19 and conflict – are elevated.

Amid substantial uncertainty around the near-term outlook, there is a wide range of possible scenarios for economic growth in the year ended September 2022.<sup>37</sup> The baseline forecast accounts for modeling which suggests that the expected Omicron wave will arrive and depart relatively quickly (compared with the 2021 surge) and trigger a smaller burden on the hospital system. Nevertheless, the impacts of COVID-19 on lives, livelihoods and economic activity in 2022 have the potential to be much worse than what is assumed under this baseline projection, because the health and/or economic effects of Omicron are worse than expected (including in the context of low vaccination rates), or because further waves of the pandemic and/or new variants hit later in the year.

This baseline forecast is also based on the assumption that the impacts of conflict on economic activity do not escalate further from what has been observed in recent months. But the recent increase in conflict-related incidents suggests that the downside risks associated with escalating conflict in the coming months are large. Any escalation would further reduce demand, strain logistics and supply chains, increase the operating constraints faced by firms, and further reduce confidence, making it very difficult to commit to hiring staff or investing.

In the near-term, the evolution of economic activity will also depend on the degree to which foreign exchange and financial sector disruptions persist, together with other disruptions such as to electricity, logistics and internet services. For different reasons, the outlook for each of these critical business-enabling services has been clouded by recent events; a shock to the provision of any of these services in 2022 could have severe implications for the overall economy. Part III of this report examines the telecommunications sector more broadly and the extent and impact of recent disruptions.

### Over the longer term, recent events will limit Myanmar's potential to recover and grow.

The dual shocks of covid and coup have had substantial impacts on physical and human capital accumulation. Most indicators suggest that private investment has fallen markedly, and some previously viable projects (e.g.

<sup>37</sup> Unusually, given substantial uncertainty around the magnitude, duration, and economic effects of recent shocks, there also remain wide error bands around the 18 percent contraction in Myanmar's economy expected for FY2021. This uncertainty about the impact of recent developments – a function of further data scarcity in what was already a data-scarce environment even prior to the February coup – increases the difficulty of calibrating economic forecasts.

in the power sector) are becoming unviable as demand remains weak, the cost of imported inputs has risen, while kyat-denominated revenues are worth less in foreign currency terms. While schools officially reopened in November reports indicate that attendance remains very low. Lost months of education, together with rapid increases in unemployment and displacement, will reduce human capital and productive capacity over the longer term. Given pressing needs for alternative sources of income and foreign exchange, there are increasing reports of an increase in extractive sector activity, including logging and mining of jade, gold, and rare earths, a large proportion of which appears to be taking place on a broadly unregulated basis. Such activity creates substantial environmental risks, threatening forests, waterways, and biodiversity, and often has little spillover impact into the broader economy.

There is also increased evidence that a more interventionist and inward-looking approach is being taken to economic management more generally. Activities previously viewed as uneconomic (state-owned steel factories, oil refineries) have been encouraged to restart. There have been further announcements of import restrictions, including via increased license requirements (see Box 1), and measures to encourage import substitution (for example, of palm oil). While these have been imposed in an effort to alleviate foreign exchange pressures and boost domestic activity, past experience suggests that such measures tend to divert resources from their most efficient use, as well as being inconsistent with the increased openness that has been a key driver of Myanmar's growth record over much of the last decade.

Similarly, while internet restrictions have been eased compared with the period immediately following the coup, Part III of this Report shows that more recent months have seen the imposition of increased taxes on telecommunications activity, ad hoc restrictions on access, and the implementation of a much more interventionist approach to internet use. To the extent such measures persist, this could have significant longer-term impacts on the growth of digital infrastructure and digitally enabled services in Myanmar, and carry significant economic costs in the form of reduced productivity and output.

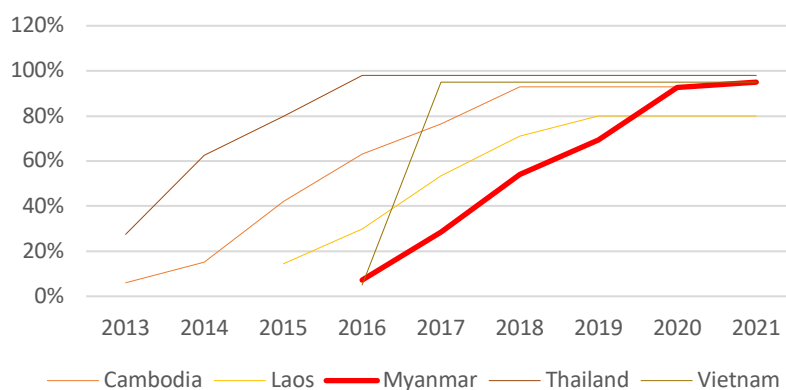
### III: Digital Disruptions and Economic Impacts

Myanmar has experienced a series of total and partial Internet shutdowns since the military coup in February 2021. These restrictions have varied in intensity across regions and over time, with the complete shutdown of all mobile services and nightly shutdowns of fixed line services between February and April 2021, followed by access to a whitelist of select websites and services and intermittent sub-national shutdowns from May. Cumulatively, these restrictions have been estimated to have cost the economy nearly US\$2.8 billion (3 – 4 percent of FY2020 GDP) between February and December 2021. In August, over a third of firms reported that limited internet access had been a critical constraint to business operations across sectors; in June, 30 percent of firms reported pivoting to a traditional platform from a digital mode of operation. In this Part III, we: (i) provide historical context for recent events by tracing the rapid growth of telecommunication networks in Myanmar over the past decade; (ii) briefly assess the impacts of COVID-19 on digital infrastructure and services; and (iii) analyze developments in the aftermath of the military coup. New regulations, market exit by private sector providers, and continued internet restrictions threaten to reverse much of the progress made over the last decade.

#### Context: Rapid digital development in the last decade

Between 2014 and 2020, Myanmar’s economy benefited from the rapid proliferation of digital technologies due to sector liberalization, market entry, and the widespread deployment of broadband networks. Mobile networks, which covered less than 10 percent of the population in 2011, are now nearly universally accessible. 4G communications networks launched only in 2016 but have achieved 95 percent population coverage – the regional average – within five years (Figure 53).

Figure 53: 4G coverage in Southeast Asia: Myanmar vs. key comparators (2013-2020)

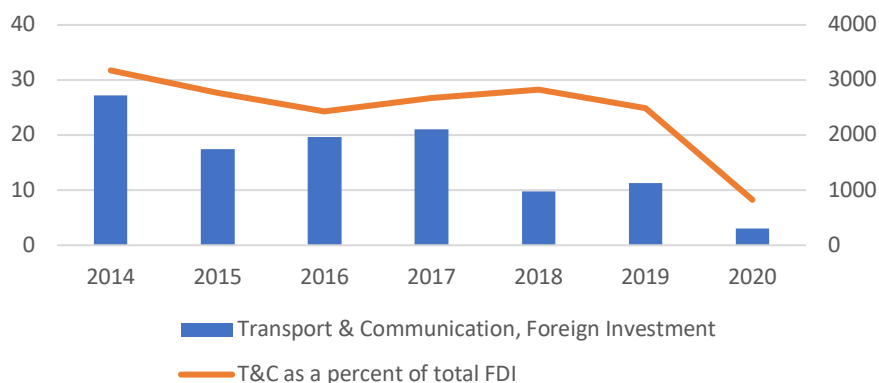


Source: GSMA Intelligence

The impressive performance of the sector can be attributed to an enabling policy environment, beginning with the adoption of the Telecommunications Law in 2013 which effectively liberalized the market, facilitating private sector entry and FDI. The subsequent expansion of mobile networks was driven by an increase in foreign investments. The first two private entrants into the retail mobile market were both foreign owned – Norwegian company Telenor and Qatari-backed Ooredoo. The entry of these operators introduced competition into the market for telecommunications services, which was previously served only by Myanma Post and Telecommunications (MPT), a state-owned enterprise. A fourth mobile operator Mytel

entered the market in 2017-18, as did several Internet Service Providers to offer fixed wireless services. Between 2013 and 2020, the Hirschmann-Herfindahl Index for the mobile sector fell from 10,000 to 2962.<sup>38</sup> Tower companies also saw substantial foreign investments, both by commercial and development finance institutions. Over the 2014-2019 period, foreign direct investments in the Transport and Communications sector ranged between 25-30 percent of total foreign investments, declining only in 2020 due to COVID-19.

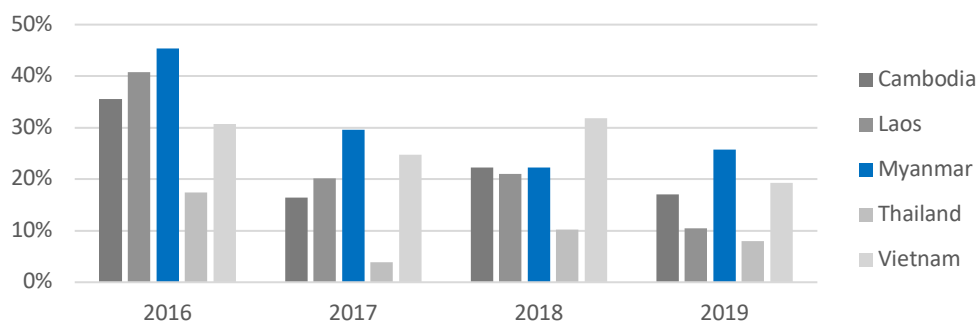
Figure 54: Foreign Investments in Transport and Communications (total and as a % of overall FDI)



Source: DICA, Myanmar (2020)

Owing to the late deployment of mobile networks, Myanmar’s population rapidly leapfrogged to adopt smartphones at a growth rate that surpassed regional peers (Figure 55). By 2019, smartphones were used by nearly 80 percent of the population, a penetration rate on par with the United States.

Figure 55: Annual Growth Rate of Smartphone Connections (2016-2019)



Source: GSMA Intelligence

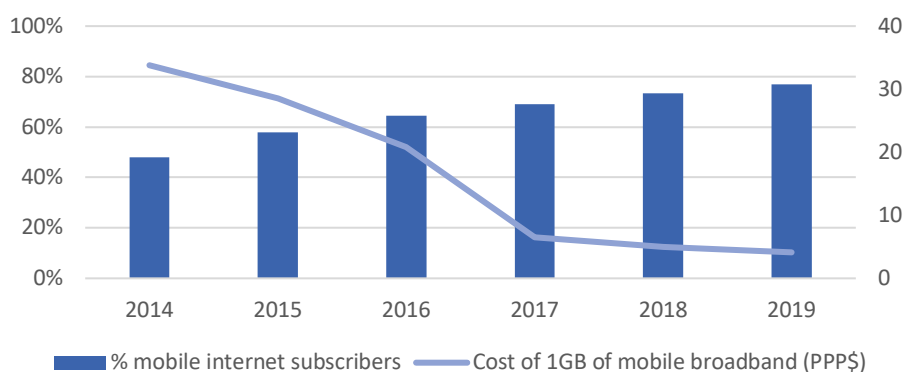
**Competitive market dynamics led to mobile services becoming widely available in previously unserved areas and a substantial drop in retail prices** (Figure 56). At the end of 2019, 77 percent of the population were mobile Internet subscribers, and the average cost of 1.5 GB of mobile broadband cost a mere 0.75 percent of GNI per capita.<sup>39</sup> The cost of a SIM card dropped from US\$250 in 2013 to less than US\$2 in 2017. Low

<sup>38</sup> HHI index varies between 0 and 10,000. 10,000 indicates a monopoly. An index score below 2500 is considered a highly competitive market; Myanmar was close to that level.

<sup>39</sup> Cable.co.uk data

smartphone costs facilitated this growth further: an average smartphone cost only US\$170 (PPP) in Myanmar, compared to US\$282 in neighboring Thailand.<sup>40</sup>

Figure 56: Adoption of mobile internet and affordability of 1GB broadband



Source: GSMA Intelligence, ITU

**High rates of smartphone adoption and mobile internet use were accompanied by near-universal adoption of social media services in Myanmar – both for personal communication and entrepreneurial activities.** In 2020, there were an equal number of social media users as there were Internet users<sup>41</sup>. Research suggests that many Internet users in Myanmar conflate the Internet with popular social media services, especially Facebook.<sup>42</sup> By initially allowing its mobile application to be used without incurring data charges (zero-rating), Facebook quickly became the core Internet service for many newly online Burmese. This trend has also been observed in other social media services as well: for example, Tiktok exploded in popularity in Myanmar in 2019 and 2020, after major telecoms networks began to bundle it with their services.<sup>43</sup>

**Several technology start-ups also emerged – predominantly in Yangon – owing to ubiquitous connectivity and a favorable business environment.** Ninety-four such startups attracted at least US\$350 million foreign capital between 2011 and 2019.<sup>44</sup> These spanned Internet software and services, e-commerce, m-commerce, mobile software, and tower companies. The country jumped from 133 to 126 in the 2019 UNCTAD B2C E-commerce Index. In addition, some digital financial startups also began operating in the country in late 2017. As a leading example, by 2019 Wave Money covered over 89 percent of the country, with a customer base of more than 25 million. The company's footprint extended to 85 percent of rural areas including very remote locations, enabling domestic remittances.<sup>45</sup>

<sup>40</sup> IDC Quarterly Device Price Tracker, 2020 Q1 edition

<sup>41</sup> Datareportal; GSMA Mobile Connectivity Index

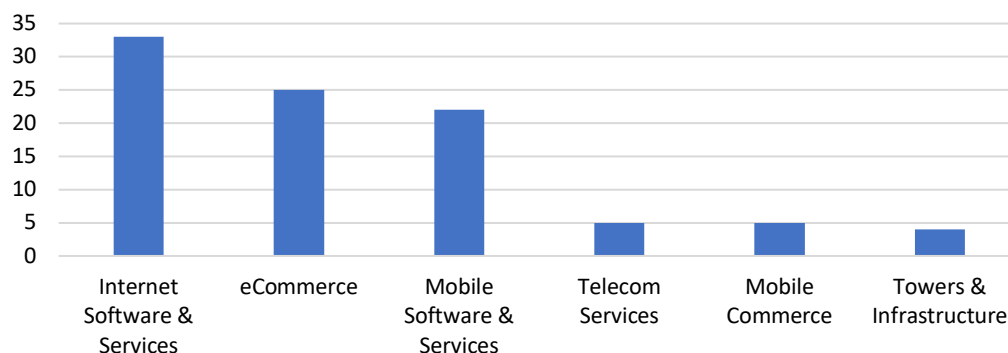
<sup>42</sup> BSR, Myanmar Human Rights Impact Assessment, 2018.

<sup>43</sup> Rest of World, 2021. "[TikTok is repeating Facebook's mistakes in Myanmar.](#)"

<sup>44</sup> CB Insights, Data as of December 2020.

<sup>45</sup> GSMA Mobile for Development, 2019.

Figure 57: Number of Start-ups by Industry in Myanmar, 2011-2020



Source: CB Insights

**Despite fast growth, some key challenges remained at the turn of the decade.** First, fixed-line access remained inaccessible to most of the population, with less than 0.4 percent of the population using fixed broadband services<sup>46</sup>. Those who did experiencing poorer average speeds than mobile broadband services. Second, the benefits of the digital economy were not available to all in Myanmar equally. Urban users consume almost five times more data compared to the national average each month; users in rural areas and small towns have poorer internet connections than those in urban areas.<sup>47</sup> In June 2019, the government restricted mobile internet access in part of Rakhine and Chin states, taking over a million people offline. The shutdown continued until the military coup in 2021 and was the longest shutdown in the world. Finally, a weak cybersecurity environment posed an ongoing threat: in 2019, Kaspersky reported that Myanmar ranked fourth globally for the highest rates of viruses, present in nearly 60 percent of computers and removeable media.<sup>48</sup>

### Effects of COVID-19 on Digital Infrastructure and Services

**Digital infrastructure and services continued to grow amid COVID-19 restrictions imposed in 2020.** 4G market penetration grew from 51.6% to 68.3%,<sup>49</sup> with an addition of nearly 6 million new subscriptions.<sup>50</sup> Smartphone connections remained the dominant form of internet access, accounting for nearly 95 percent of connections. Telecommunications networks proved to be remarkably resilient despite reported increases in traffic in March-April 2020,<sup>51</sup> with mobile and fixed download speeds remaining stable over the first half of 2020. Mobile broadband also became more affordable, dropping from an average price of US\$ 0.87 in 2019 to US\$ 0.78 for 1 GB, less than 1% of monthly average GNI per capita.

**Phones and the internet supplemented educational engagement amid school closures due to COVID-19.** Household surveys suggested that most households in Myanmar owned a median of 2 smartphones. While only 37 percent of students in school in February 2020 continued to engage in learning activities after schools

<sup>46</sup> As determined by the Global Internet Map, 2021. See <https://global-internet-map-2021.telegeography.com>

<sup>47</sup>Telenor, 2018. "Realising Digital Myanmar: Leapfrogging to an inclusive digital economy."

<sup>48</sup> Kaspersky Security Bulletin, 2019.

<sup>49</sup> Market penetration is defined as the number of 4G connections as a share of the addressable population. GSMA Intelligence, 2021.

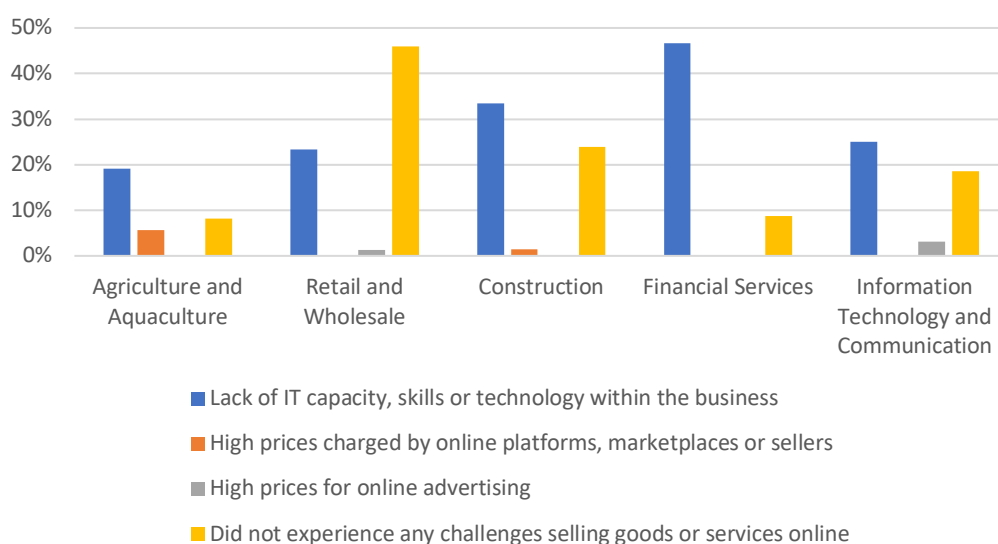
<sup>50</sup> As determined by the Global Internet Map, 2021. See <https://global-internet-map-2021.telegeography.com>

<sup>51</sup>Myanmar Times, April 1, 2020. "Internet data usage up 25% over past four weeks in Myanmar."

closed, of those that did, 38 percent used phones to keep in touch with their schools and teachers, and 6 percent used the Internet to engage in learning.<sup>52</sup>

**E-commerce saw further growth amid the pandemic, with approximately 38 percent of firms adopting an online platform, and a 73 percent (yoy) increase in e-commerce payments<sup>53</sup>.** In December 2020, a survey of firms across industries suggested that 46 percent of respondent firms in retail and wholesale faced no challenges selling online, and 1 percent considered the price of online advertising as a barrier to their business activity (Figure 58). However, the two highly digitized sectors – financial services and information and communication - did face greater constraints in terms of access to IT capacity, skills, and technology, relative to other sectors less reliant on technology. On the other hand, amid COVID-19, firms in the information technology and communication sectors reported fewer operational challenges (business closures, supply disruptions, workforce layoffs) than other industries.

*Figure 58: Challenges faced by firms using digital platforms in select industries, December 2020*



Source: World Bank Business Pulse Surveys, Round 6 (December 2020)

### Effects of the February coup and its aftermath

**Following the February coup, there were a series of disruptions to internet access in Myanmar.** These disruptions ranged from blanket, time-bound restrictions on internet access to restrictions on certain social media services between February and April 2021. During the early hours of February 1, internet services were disrupted across all service providers in the country. While services were briefly restored, social media services were restricted<sup>54</sup> on major internet providers starting February 4. The authorities implemented a 30-hour

<sup>52</sup> High-frequency Household Pulse Surveys, Myanmar COVID-19 monitoring.

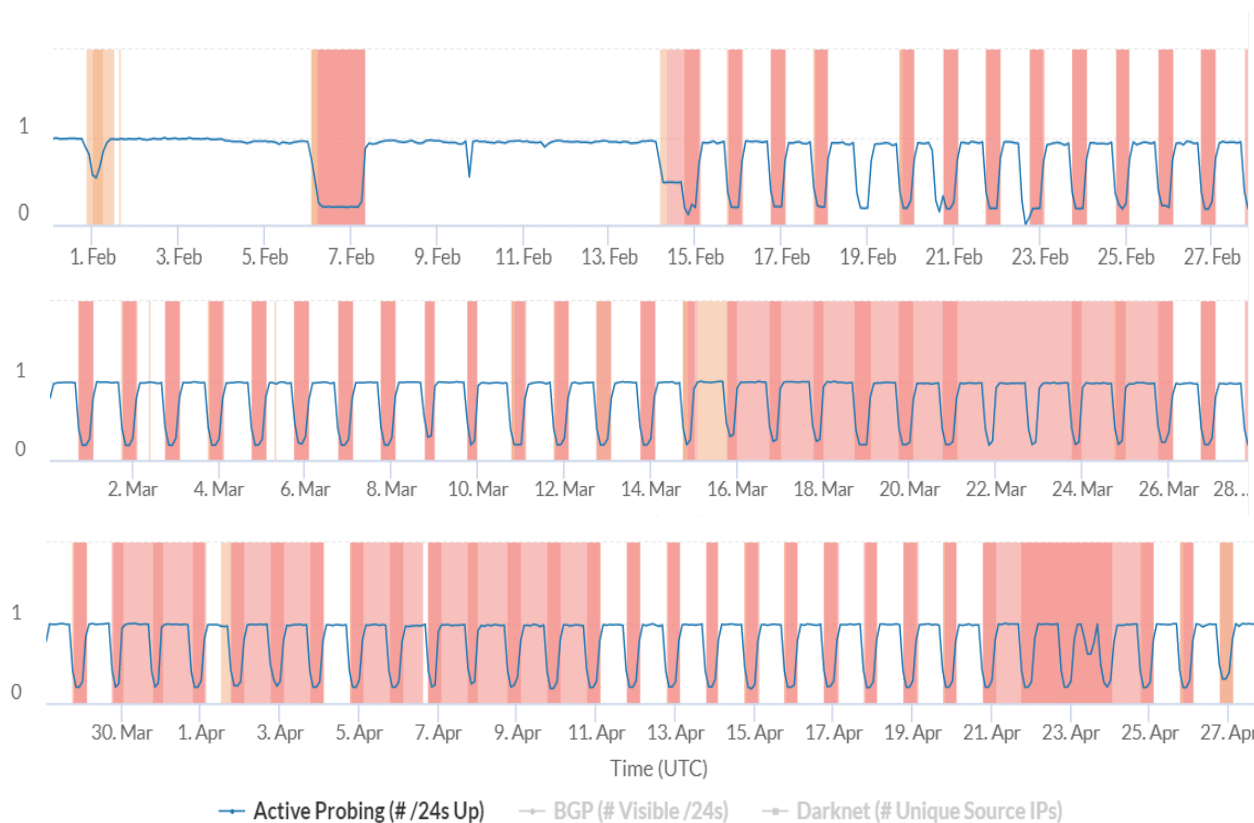
<sup>53</sup> Myanmar Economic Monitor, July 2021.

<sup>54</sup> Facebook, Instagram, Messenger, and some WhatsApp servers on state-run internet provider MPT; Facebook and Twitter on major internet providers. OONI, 2021.



shutdown on February 6, 2021, and another extended complete shutdown on February 15, 2021. Between February 16 and April 1, 2021, a night curfew on fixed line and fiber services was imposed. On March 15, mobile data and some public Wi-Fi services were disabled. Between April 2 and April 28, a near total internet shutdown was enacted, with no access to any wireless broadband (including cellular, public Wi-Fi, and fixed wireless broadband) services, and limited day-time access to fixed-line services. On April 28, fixed line internet restrictions eased, but with minimal impact, as less than 1 percent of the population rely on fixed line services and less than 4 percent own a computer at home.

Figure 59: Total internet shutdowns as detected by active probes in Myanmar<sup>55</sup> (February–April 2021)



Source: Internet Outage Detection and Analysis (IODA), 2021. Note: the y-axis is normalized to 1, representing the absence of an outage, whereas dips represent outages. The red alert bands highlight periods during which the Internet was partially or fully shutdown, as detected by IODA’s outage inference system.<sup>56</sup>

**In May 2021, the authorities moved to an approach of 'whitelisting', where internet websites and applications are blocked, save for select websites and applications.** This approach is likely to limit access beyond basic services.<sup>57</sup> Whitelisted websites and services included online business and banking applications;

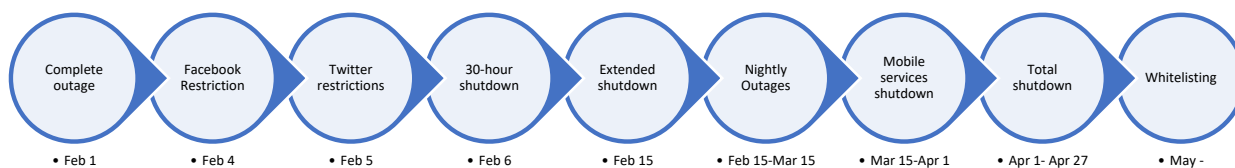
<sup>55</sup> The blue line represents active probing measurements. This technique involves sending network pings to various destinations and measuring the rate of returned responses. Active probing measurements use small packets of data and thus can operate even with limited bandwidth.

<sup>56</sup> For further details on IODA’s methodology, see: <https://www.caida.org/projects/ioda/>

<sup>57</sup> International Crisis Group, 2021. “[Myanmar’s Military Struggles to Control the Virtual Battlefield.](#)”

social media platforms such as WeChat, Instagram, and WhatsApp; and online services such as Grab. However, commonly used websites such as Wikipedia, Facebook, and Twitter were not on the whitelist, and continue to face restrictions on access within Myanmar.

Figure 60: Timeline of internet restrictions in Myanmar (February–December 2021)



**Research on the restrictions suggests wide variance across networks—different websites have been blocked on different networks and different censorship methods have been used by different internet service providers in Myanmar.**<sup>58</sup> Box 2 summarizes the different internet restrictions that have been implemented. While all digital platforms remain accessible in some cases and using some tools, the costs incurred by citizens and business to maintain access has increased, given the need for VPNs, multiple SIM cards, or in some cases, an additional fixed line connection. Moreover, the use of common circumvention tools – such as virtual private networks – has been subject to restrictions.<sup>59</sup> Reports also suggest the use of surveillance and interception software by telecommunications companies, in compliance with orders from the authorities, which also deters online activity.<sup>60</sup> The use of throttling – restricting internet speeds – has further affected the quality of available service to citizens.<sup>61</sup> In response, reports suggest an increased use of foreign SIM cards, communications over alternate radio frequencies, and the use of SMS messages for communication.<sup>62</sup> These modes do not rely on data services but face other challenges in reaching users at scale.

*Box 2: The Types of Internet Restrictions Implemented in Myanmar Since February*

1. **Total Network Shutdowns:** A total network shutdown involves disconnecting network infrastructure at key access points to the global Internet, resulting in Internet connections being physically prevented.
2. **Throttling:** Network throttling is an intentional slowing down of internet speeds within a network. It is often implemented by Internet Service Providers and leads to users experiencing low bandwidth conditions with poor service quality.
3. **IP address blocking.** “IP addresses” are the locations of computers on the public Internet. IP address blocking entails Internet Service Providers blocking communication to lists of locations that correspond to restricted websites.
4. **Domain Name System (DNS) tampering:** In this case, a user’s request to access a restricted IP address is modified by the Internet Service Provider, leading to the IP address being redirected to give an incorrect answer or no answer.

<sup>58</sup> Padmanabhan, Ramakrishna, et al. 2021 "[A multi-perspective view of Internet censorship in Myanmar.](#)" *Proceedings of the ACM SIGCOMM 2021 Workshop on Free and Open Communications on the Internet in Myanmar.*

<sup>59</sup> Open Observatory of Network Interference, 2021.

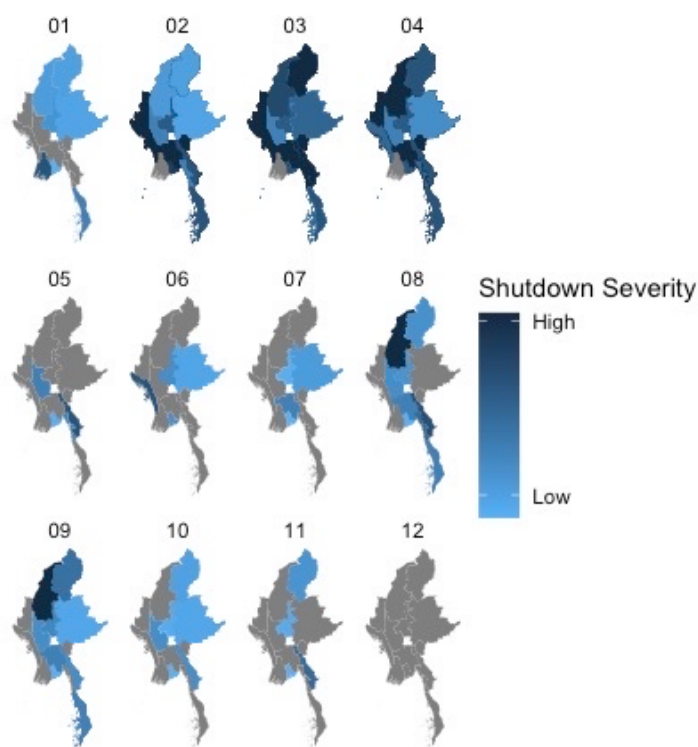
<sup>60</sup> Frontier Myanmar. July, 5 2021. "[Junta steps up phone, internet surveillance – with help from MPT and Mytel.](#)"

<sup>61</sup> Reuters, April, 7 2021. "[Myanmar’s Internet suppression.](#)"

<sup>62</sup> Ibid.

**Parts of Myanmar continue to be affected even after the end of the total nationwide shutdown in April 2021, with some regions affected more severely than others.** Based on data from the Internet Outage and Detection Analysis (IODA), outage severity – a measure that considers both the magnitude of the outage and the duration of the outage – has varied significantly between January and December 2021.<sup>63</sup> For instance, Yangon and Mandalay ranked highest in outage severity – highlighted in (Figure 60) in the darkest shades of blue – in the February–April period. However, after the whitelisting regime was implemented in May, outage severity levels have varied across the country. Between July and December, states facing the most severe total outages have been Mandalay (Jul), Kayin (Aug), Mandalay (Sep), Tanintharyi (Oct), Kachin (Nov) and Yangon (Dec)<sup>64</sup>. Generally, the trend was towards greater censorship (restrictions on access to certain websites) but more limited total shutdowns. In certain regions, data also suggest the use of throttling before the enactment of total shutdowns.<sup>65</sup> Internet shutdowns in the July-December period were also reported to be correlated with the location of protest activity and conflict.<sup>66</sup>

*Figure 61: Outage severity of internet restrictions in various states in Myanmar (Jan (01) – Dec (12) 2021)*



Source: Internet Outage Detection and Analysis (IODA), 2021.

<sup>63</sup> For an in-depth elucidation of the outage severity level calculation, please visit <https://ioda.caida.org/ioda/help> (section on Outage Severity)

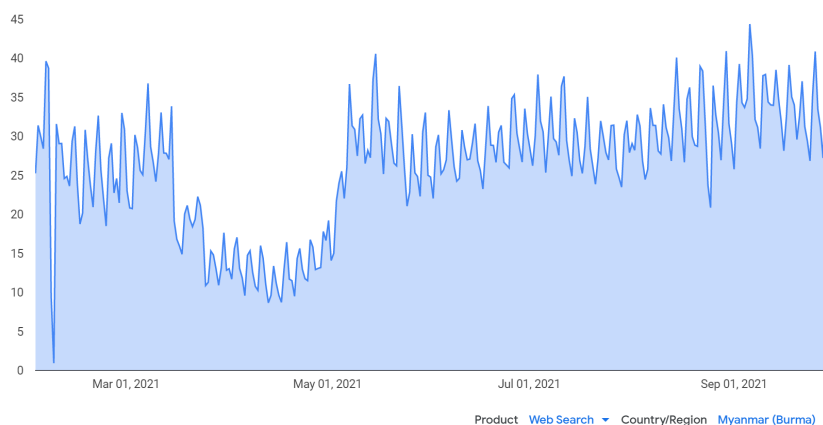
<sup>64</sup> Based on IODA’s Outage Severity Score by region.

<sup>65</sup> Washington Post, August 25, 2001. “[Anatomy of a crackdown](#)” and using data from Monash IP Observatory, 2021.

<sup>66</sup> Radio Free Asia. 16 September, 2021. “[Anti-Junta Townships in Myanmar Fear Internet Shutdowns Signal Imminent Military Offensive.](#)”

**Selective restrictions in Myanmar affected users differently across various commonly accessed online platforms.** Facebook, the most accessed social media platform in the country, saw a dramatic decrease in social media engagement across its English and Myanmar media public news pages.<sup>67</sup> Web traffic to Google, however, which remained on the ‘whitelist’, surged after the initial total shutdowns ended in the country (Figure 62).

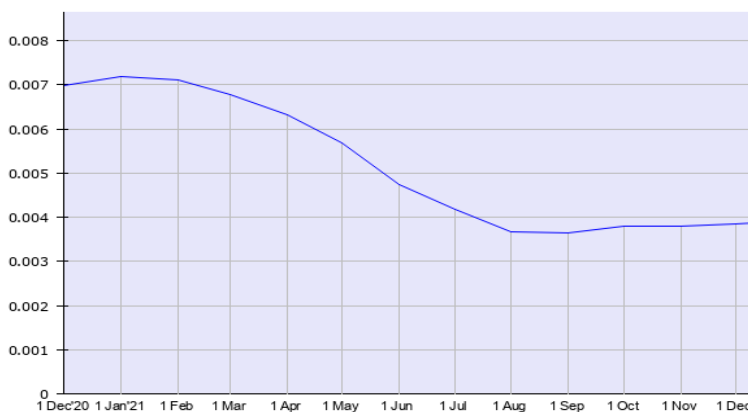
Figure 62: Traffic to Google products, January–September 2021



Source: Transparency Report, Google, 2021.

**There has been an adverse impact on the growth of autonomous systems (ASNs), domains registered on the country’s top-level domain .mm, and IPv4 and IPv6 addresses.** These metrics are an indicator of internet growth within the country and provide key insights into how the digital economy is affected by the ongoing events. For instance, businesses register on the country’s top-level domains to reach the local market and provide local language content and services for global platforms. The growth in both ASNs and IPv6 addresses indicates the number of new systems and addresses that are joining the global internet, and their growth is often related to the number of new players entering the market and setting up their own systems and servers. For each of these metrics, there have been pronounced decreases in 2021 (Figure 63).

Figure 63: Usage of .mm domains, 2020–2021



Source: W3Techs, 2021

<sup>67</sup> Frontier Media Monitor, Myanmar.

**Internet shutdowns and restrictions affect the economy by reducing access to services, information, and markets; disrupting businesses' operations; and weakening investor confidence (Box 3).** In Myanmar's case, estimates suggest that the restrictions imposed in 2021 have cost nearly US\$2.8 billion, or around 3 to 4 percent of FY2020 GDP.<sup>68</sup>

The methodology relies on estimates from the literature on the extent of development of a country's digital economy and the multiplier effect of a disrupted digital economy. Estimates of the size of the digital economy are prone to risks of both over-estimation (due to the use of alternative communication channels amid shutdowns) and under-estimation (due to the networked nature of the digital economy and its widespread effects on supply chains, investments, revenue mobilisation etc). Therefore, the US\$2.8 billion figure, while derived using up-to-date data and assumptions in line with the literature, should be understood primarily as providing an order of magnitude, rather than a precise estimate.

### *Box 3: Effects of Internet Shutdowns: A Brief Review of the Literature*

**Internet shutdowns affect society in three ways.** First, they affect the functioning of businesses, adversely impacting economic activity and growth. For instance, e-commerce and digitally native services are directly affected by Internet shutdowns, as are digital financial services. Other sectors that are Internet dependent, such as tourism, ed-tech, and the news media industry are also adversely affected. In India, states that have experienced frequent shutdowns have reported loss in tourism revenues, and a deterioration in entrepreneurship activity and access to education<sup>69</sup>. Shutdowns in Anglophone Cameroon adversely affected small businesses, as they lost their ability to continue business relationships and transactions online. In Myanmar, the licenses of seven major media outlets have recently been revoked, with telecommunications companies ordered to block their websites.<sup>70</sup> Importantly, Internet shutdowns can be regressive – prior research has shown that they impact small businesses more adversely than larger ones.<sup>71</sup> Second, Internet shutdowns affect the ways in which outside actors – countries, development partners, and foreign investors – view a country's economic prospects. Countries may choose to deploy trade sanctions, international organizations may withdraw funds, and foreign investors may consider investments risky, in light of Internet shutdowns. Finally, Internet shutdowns affect access to services, in addition to the safety and security of citizens and civil society organizations. In the past, Internet shutdowns have affected critical emergency services, such as the functioning of hospitals and air transport, and have prevented communications between family members, relatives, and refugees.

**These restrictions had a direct impact on investor confidence, especially of key foreign investors in the telecommunications sector.** In June 2021, the Telenor group—a large international telecommunications company headquartered in Norway with 18.2 million subscribers in Myanmar—announced that it was writing

<sup>68</sup> Estimated using Internet Society's Cost of Internet Shutdown Tool, based on the total number of hours of internet restrictions (with different types of restrictions bearing different costs), the estimated importance of the digital economy in Myanmar's overall economy, and estimated multiplier effects. See <https://www.internetsociety.org/projects/cost-tool/>.

<sup>69</sup> ICRIER. May 2018. "[Anatomy of an Internet Blackout; and Software Freedom Law Center, 2018. Living in Digital Darkness – A Handbook on Internet Shutdowns in India.](#)"

<sup>70</sup> Voice of America. March 8, 2021. "[Myanmar Military Strips Five Media Companies of Licenses.](#)"

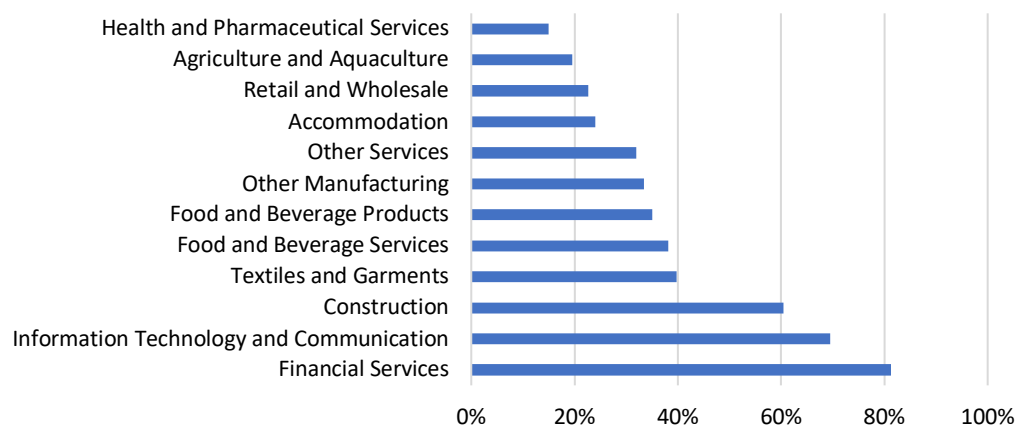
<sup>71</sup> ICRIER. 2018. "[Anatomy of an Internet Blackout: Measuring the Economic Impact of Internet Shutdowns in India.](#)"

off the value of its business in the country. Upon requests to install interception equipment on its services, it considered options for exit from the country. Subsequent sale plans have experienced delays. A joint survey of 372 firms with foreign investors, conducted by 11 foreign chambers of commerce in March 2021, found that 63.92–86.67 percent of companies considered the restrictions on internet access a key operational challenge.<sup>72</sup>

**Restrictions have had substantial impacts on firms’ operations. Firm surveys indicate high levels of reliance on digital services, noting that across all industries digital services were used, albeit by a varying share of firms.** Notably, 81 percent of financial services firms, 70 percent of ICT firms, and 60 percent of construction firms in the August 2021 survey reported relying on online services and digital payments (Figure 64). In August, over one-third of all firms reported that limited access to the internet had affected their business operations since February 2021, with the ICT and financial services sectors most affected, closely followed by the construction sector (Figure 65). In the October survey, firms were asked whether limited internet access had impacted their business operations over the last month (rather than since February). Even with this narrower and more recent timeframe, 20 percent of all firms reported that limited access had impacted their operations, including almost half of all financial services firms (Figure 66).

**While the impacts on financial services and ICT firms are as expected, given their reliance on digital payments and internet access, the large impacts experienced by construction firms may in part be driven by the increased digitalization of this sector during the pandemic.** For instance, during 2020, the city of Yangon, Myanmar expanded the use of digital construction permits, which it had piloted for two years.<sup>73</sup> Restrictions on internet access mean that firms are now forced to rely on longer, more bureaucratic processes in lieu of an automated online process.

Figure 64: Share of firms reporting the use of online payments or services in August

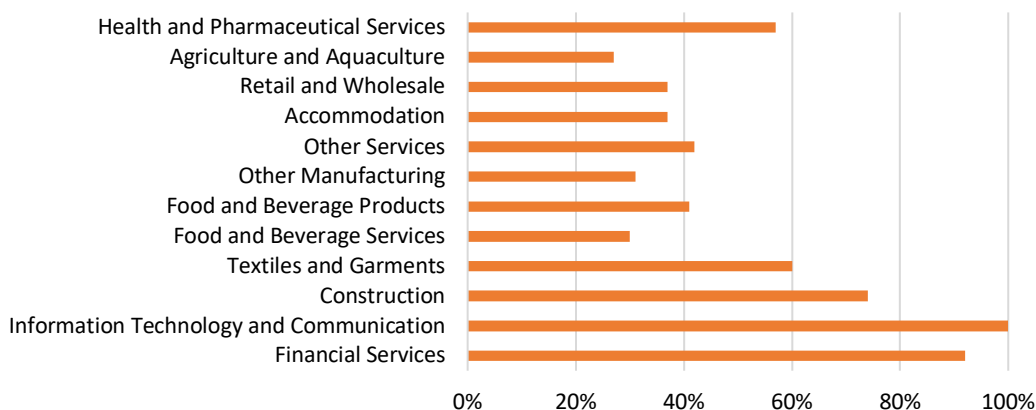


Source: Myanmar Firm Surveys, Round 8, August 2021.

<sup>72</sup>Joint Chambers of Commerce, 2001. “[Joint Survey \[Report\] on the Impact of Businesses Operating in Myanmar.](#)”

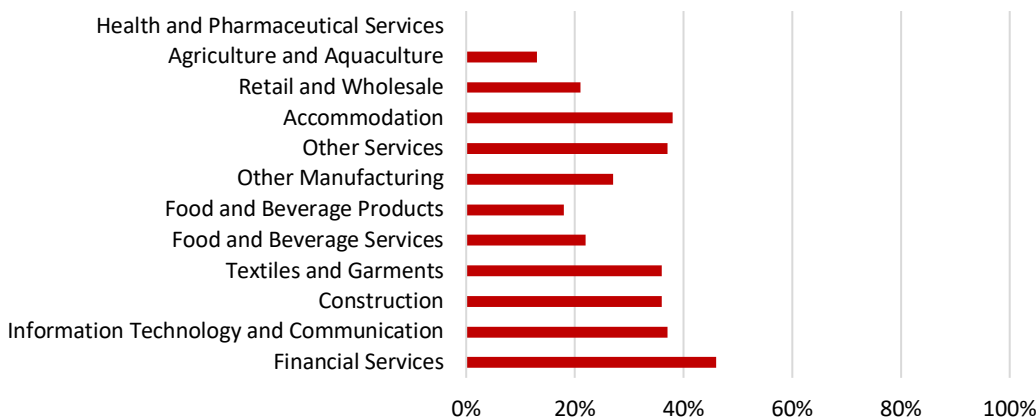
<sup>73</sup>World Bank. June 25, 2021. “[Building during a pandemic: Disruption and digital transformation in the construction industry.](#)”

Figure 65: Share of firms reporting that limited internet access had impacted business operations between February and August



Source: Myanmar Firm Surveys, Round 8, August 2021.

Figure 66: Share of firms reporting in October that internet access impacted operations over prior month



Source: Myanmar Firm Surveys, Round 9, October 2021.

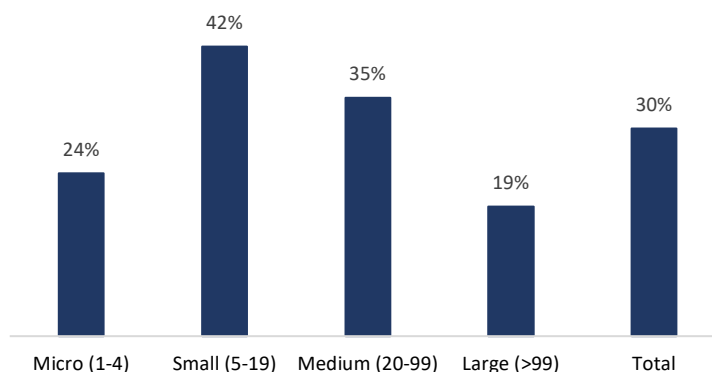
**One way in which firms coped with these internet restrictions was by shifting from a digital platform to a traditional platform.** The firm survey conducted in June 2021 indicated that 30 percent of firms switched from digital to traditional platforms for major business functions due to internet restrictions since February 2021 (Figure 67). More small and medium enterprises (SMEs) pivoted away from online service modes, compared to large firms. In rural areas, some farmers have turned to barter in the absence of cash and mobile payment services such as medical care.<sup>74</sup> Retail entrepreneurs have tended to rely on cash transactions, given traders’ increased reluctance to accept online or bank transfers.<sup>75</sup> No financial services firms reported being able to pivot away, suggesting a high degree of reliance on digital access by the financial services sector. But reports suggest that while financial services firms suffered in the immediate aftermath of the coup, the

<sup>74</sup>The New York Times. August 7, 2021. [“They Wait Hours to Withdraw Cash, but Most A.T.M.s Are Empty.”](#)

<sup>75</sup>Reuters. May 14, 2021. [“Lines, tokens and money brokers: Myanmar’s crumbling economy runs low on cash.”](#)

subsequent easing of some internet restrictions and banking system constraints may have contributed to a recovery in the digital payments business.<sup>76</sup>

*Figure 67: Share of firms reporting transition from online/digital to traditional platform for major functions*



Source: Myanmar Firm Surveys, Round 7, June 2021.

**Recent regulations and price changes may catalyze further movement away from digital activities.** The Posts and Telecommunications Department announced in December 2021 that all Internet providers would raise their charges. Three of the four providers—state-owned MPT, Ooredoo and Telenor—nearly doubled the effective cost of Internet access by almost halving the volumes of data provided for the same price. In January 2022, authorities issued an order to introduce an MMK 20,000 charge on the sale of SIM cards, and increased commercial tax on revenue from fixed and mobile data services from 5 percent to 15 percent. Such changes, while too recent to observe impacts, are expected to reduce internet usage for as long as they are in place, particularly given recent reductions in income and employment across the country.

**More generally, regulations of this type, when combined with continued internet restrictions, the ongoing threat of shutdowns, and market exit by private sector providers, all threaten to reverse the substantial progress made over the last decade.** Across the world, digital technologies have dramatically reduced information costs and lowered the cost of economic and social transactions by enabling data flows. This contributes to greater collaboration among economic agents, influencing how firms operate, people seek opportunities, and citizens interact with their governments.<sup>77</sup> With the rapid development of the telecommunications sector over the last five years, Myanmar’s digital economy had seen similar positive trends. But continued internet restrictions and the persistent threat of shutdowns will likely dampen online economic activity, adversely affecting individuals’ ability to communicate, seek opportunities, and learn online. It will also affect the many young digital startups who rely on consistent, reliable, and widespread Internet adoption to reach markets. Further, the new regulations will impact the affordability of mobile services, adversely impacting consumer demand and consequently, operators’ profitability. Reports of directives to install interception

<sup>76</sup>Nikkei Asia. January 3, 2022. “[Telenor to divest Wave Money, exit Myanmar mobile banking.](#)”

<sup>77</sup> World Development Report 2016: “[Digital Dividends](#)”; World Development Report 2021: “[Data for Better Lives](#).”



equipment on networks will further reduce trust in digital networks, platforms, and services. Recently reported plans to criminalize the use of VPNs in updated cybersecurity legislation would have a chilling impact on business operations and the use of social media. To the extent that such trends persist, significant longer-term impacts on the development of digital infrastructure and digitally enabled services in Myanmar are likely, which would carry significant economic costs in the form of reduced economic growth, productivity and output.

# MYANMAR ECONOMIC MONITOR | January 2022