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The Cost of Myanmar's Coup d'état and Ongoing Civil War

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The cost of Myanmar's civil war has yet to be analysed and discussed thoroughly in academic literature. There is no sign of a resolution to Myanmar's 1 February 2021 military coup d'état, which is currently devolving into a full-scale civil war. Consequently, the country has become a hotbed of absurdity, conflict, and extreme economic hardship. This article attempts to examine the economic cost of Myanmar's civil war from 2021 until mid-2023, employing the analytical framework for assessing the American Civil War. This study shows that civil wars, such as the one in Myanmar, have a longer-lasting impact than interstate conflicts. The opportunity costs and long-term economic effects of war have been grossly underestimated in certain studies. The main argument of this article is that the civilian population, rather than combatants or military personnel, bears the brunt of the devastating effects of such a civil war. Moreover, many of these ramifications may continue to have an impact after hostilities have ended.

Keywords: Myanmar coup, economic cost of civil war, opportunity cost of civil war, reversed development, spillover impact, authoritarian economic apparatus, social cost

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1. Introduction

Will the civil war in Myanmar permanently alter geopolitical, intra-economic and financial structures of ASEAN? Conflict shatters life, health and living standards; hence, there is a direct causal link between conflict and poverty, claim Miguel et al. (2004, p. 727). Unavoidably, a significant death toll will impact the economy of Myanmar. After two and a half years under a military coup, it should be self-explanatory that the effects of the Myanmar civil war will not only be tremendously destructive, extensive and long-lasting for its own nation but also impactful for neighbouring nations with "spillover" consequences such as refugee flows, chaos and the illicit trade in minerals, weapons, and drugs.

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This paper investigates the economic consequences of Myanmar's protracted civil war. It attempts to cover the economic cost of Myanmar's civil war from the 1 February 2021 military coup to mid-2023 according to the theoretical framework for analysing American civil war costs laid out by Coclanis (1996, pp. 163–75) and Goldin and Lewis (1975, pp. 299–326). Uncertainties at this stage are enormous, and risks to the people of Myanmar and neighbouring economies are at an unprecedented level. The main objects of this analysis seem strongly biased towards the downside. Although it may be readily apparent that Myanmar's protracted civil war has triggered the most devastating economic storm and tremendous cost to its people, this topic has yet to be extensively debated in academic literature. This paper does not completely answer the question of the comprehensive overall cost of the Myanmar civil war; however, it hopes to contribute a starting point for further research, and is organized as follows:

Section 2 addresses the main methodological framework and provides the estimated cost of Myanmar's civil war (from 1 February 2021 to 31 May 2023); section 3 delves further into the economic consequences of such a civil war; and section 4 outlines the possible quantifiable and unquantifiable economic, political, social, and environmental costs.

This paper concludes that civil wars conducted on a country's own soil cause a massive loss in GDP per capita, that civil wars have more lasting impacts than interstate conflicts, and that some traditional research may have greatly underestimated the opportunity cost and long-term economic impacts of war. Furthermore, by delving deep into the available data and analysis, this paper argues that there are broader issues than quantifiable costs concerning the economic impacts of the war.

The Root of Conflicts in Myanmar

Ethnic conflicts in Myanmar are as old as the nation itself. Fêted as independent from the British in 1948, Myanmar (or "Burma", as it was then named) began its journey of ethnic disputes over autonomy and federalism. As early as 1949, the Karen ethnic group started their civil war against the central government, the year after attaining independence (Steinberg 2001, p. 5). Not long after Myanmar gained independence from the British, arguments over federalism began to brew in the courts. The Attorney-General argued that Myanmar's political system of government was "federal in theory and unitary in practice" since most minority groups would pursue their own ethnic interests and agendas to preserve and protect their cultures in their territories against policies of "Burmanization" emanating from the central government. This ignited a large circulation of discussions and arguments, followed by misunderstandings, misinterpretations, attempts of revolt and calls for autonomy and independent states.

The young administration of Myanmar was, at the time, led by U Nu's democratic administration, and he assumed that those misunderstandings and misinterpretations, coupled with armed anti-democratic and anti-freedom movements, threatened the nation's fragile government and its constitution (Christian 1951, p. 51). To maintain stability and restore law and order, the government resorted to using force, giving power to the military to unite the country under one central government, instead of political dialogue and engagement by political means to reach a resolution agreed upon by all the actors. Soon, clashes officially began between Ethnic Armed Organizations (or) Militias (EAOs) and the Myanmar central army, which excessively employ war crimes, rape, and burning villages as their main tactics to eliminate their assumed enemies, who are also Myanmar nationals.

This malpractice caused ethnic minorities to lose faith in the "national identity" (Silverstein 1996) and the "federal system" proposed by the central government, which has steadily become controlled by a "Burman" majority from 1962 to the 2010s. During this short period of control, military leaders ranging from General Ne Win to Senior General Min Aung Hlaing realized that they could capitalize on their unique position to perform military coups in the name of different causes under campaigns titled "Unite the Country", "Burmese Way to Socialism", the "Roadmap to Disciplined Democracy" and "Electoral

Fraud". Since then, Myanmar has been ruthlessly ruled by the military (also known as the Tatmadaw) which assumes, under the guise of fallacious logic, that it is itself "the protector" and that only "military praetorianism" (Croissant 2021) can preserve the unity of the state.

Its tight grip on power, ruthless takeovers and involvement in politics are probably the most durable in the world. Its creation of the longest civil war against minorities has severely plagued the country's development pattern and constrained the country's democratic transformation (Silverstein 1993). The Tatmadaw's main assumption of nation-state identity went wrong when they employed ruthless force and pursued unity of all ethnicities under one umbrella without proper regard for ethnic history, identity, culture, language, religion and economic resource-sharing. Many institutions, including the UN Human Rights Council (UNHCR), have extensively documented that the Tatmadaw has, over these six decades, committed gross human rights violations, crimes against humanity, and crimes against ethnic minorities (World Bank 2022a).

A cycle of instability and national failure has inflamed every phase of governance since a few years after the nation gained its independence. The country currently exemplifies the World Bank's concept of a "conflict trap", where a civil war is waged following a military takeover in 2021 (World Bank 2022b). At present, it does not appear to be an all-inclusive plan for a negotiated settlement. Instead, tensions are escalating as political violence and repression spread across the country.

What led to these state failure cycles, and are there any means of altering these patterns? The solutions may be simple and obvious; all the nation's issues are fundamentally political, and until there is meaningful discussion and agreement on reforms that are inclusive, equitable and just, there will never be long-term stability and socioeconomic advancement that would benefit all of Myanmar's citizens. This, however, appears to be easier said than done because complications, mistrust, political avarice, and resentment have accumulated over time and changed, creating a never-ending cycle of conflict.

1 February 2021 Military Coup

It all started with Myanmar's military establishment staging a coup and reinstating the apparatus of violent military dictatorship by deposing the democratically elected government led by Aung San Suu Kyi and several senior leaders based on allegations of electoral fraud, for which there was no documented evidence (*New York Times* 2021). The hard power employed to restore sovereignty by the Tatmadaw against dissidents was tremendously destructive to economic infrastructure, ruined the lives of its own citizens and reflected "dehumanized military objectives".

The coup has derailed Myanmar's democratic transformation and thrown the country back into a dark era of authoritarianism. Despite the torture and terror tactics of the military, which include mass killings and the burning of villages and towns that are designed to instil fear in the population, the military's aim to take over the government and governance functions in a short and quick coup remains unrealized due to the persistent actions of dissidents, armed revolutionaries, resistance and the shadow government (Lee et al. 2021).

Proponents of the civil war in Myanmar frequently use the rhetoric that such a war on its own people is a vital catalyst for social progress and a necessary instrument for consolidating a "military-imposed nationalist ideology" (Steinberg 2021). This coup has met with an unprecedented level of resistance from almost all strata of society—including ethnic minorities, students, government employees, farmers, doctors, nurses, teachers, lawyers, engineers, businessmen, young and old, rich and poor, educated and uneducated (*Al Jazeera*, 1 February 2022). It is self-evident that the irrational reality of the Tatmadaw's ultra-nationalist ideology never seemed to have much influence beyond the barracks of the army. Nevertheless, the protracted civil war in Myanmar is wreaking havoc on both the social and economic fabric of the nation.

Current Civil War Dynamic

At first glance, Myanmar's internal conflict seems to have only two sides to the coin: perpetrators and victims; the military against its citizens. However, there seem to be many different actors on the side of resistance. After the coup, the people of Myanmar felt robbed of their country and their future. The relative freedom and improving quality of life the Myanmar people had enjoyed for a decade were now gone, and their economic expectations for the future were violently reversed (USIP 2022).

Under the command of coup leaders, Myanmar's military soldiers and police forces have ruthlessly carried out a nationwide "war-like" attack on the civilian population with impunity. It is widely documented that the junta has murdered masses of civilians, killed children at schools, bombed hospitals, used rape as a weapon, imprisoned thousands, systematically tortured detainees and persecuted political opponents. Millions of people have been forcibly displaced and forced into hiding. According to Davies (1962), in such an appalling situation, citizens will resort to political violence and insurgency.

The revolution in Myanmar against the military coup began peacefully, with people banging on pots and pans every night to express their discontent with the coup, followed by nationwide demonstrations with millions of participants. At the same time, a Civil Disobedience Movement (CDM) began, with civil servants refusing to work, further undermining the military's ability to consolidate power (Bociaga 2021).

As the military intensified its crackdown against protesters with deadly force, Myanmar's youth initially responded with nonviolent tactics. After a few months, the revolution devolved into an armed conflict as shown in Figure 1. As solidarity against the regime built up, it gave way to battles with riot police and light infantry, with protesters using whatever weapons they could lay their hands on. A coup leader may have held hard power as their ultimatum, a few EAOs and business elites on the inside, and a few autocratic countries on the outside. In the opposition, the NUG (National Unity Government), the shadow government, armed dissidents, unarmed dissidents, and EAOs could all be labelled as revolutionaries.

Resistance to the military coup is broadening Myanmar's complex typology of conflict actors. Excluding EAOs, there are more than 400 People's Defence Forces (PDF) battalions and local defence forces scattered across the country, each with 200–500 troops. While some emerged as early as April 2021 in Yangon in the aftermath of the military crackdown, many, but not all, of them professed allegiance to the NUG immediately after it announced an uprising and the formation of PDFs in September 2021. The well-armed PDFs are working alongside EAOs in the southeast. However, most members of the resistance forces in the country as a whole have not been provided with a firearm (Hein 2022).

Since the coup, up to 314 of Myanmar's 330 townships have reported some kind of armed, violent battle, according to an analysis by the International Institute of Strategic Studies (Nicola 2023). Around 21,595 incidents and battles have occurred from February 2021 to June 2023, (ibid.), according to data from the Armed Conflict Location and Event Data (ACLED 2023). In the 24 months following the coup, ACLED (2023) found that political violence killed around 32,000 people, including over 20,000 killed in battle and over 7,000 killed in explosions. Northwest Myanmar had 19,000 casualties, accounting for 60 per cent of all post-coup deaths, demonstrating the shifting character of the conflict there. 13,000 occurred entirely in the Sagaing Region, while 4,000 occurred in the Magway Region. The other fighting hotspot in southeast Myanmar has also reported 6,500 confirmed fatalities, accounting for 20 per cent of the overall wounded.

During such a civil war, Myanmar society diverts the majority of its resources from productive pursuits to violence, e.g., the Tatmadaw allocating public funds to its military operations, and the resistance obtaining war funding through local contribution groups (International Crisis Group 2022). Consequently, Myanmar society suffers twice. The diverted resources are lost to productive activity,

Legend ■ Attack/armed clash KACHIN ■ Remote explosives/IEDs ■ Air/drone strike ■ Crackdowns SAGAING ■ Infrastructure destruction TIMELINE CHIN JUL '20 MANDALAY FEB 2021 MILITARY COUP MAGWAY JAN '22 RAKHINE NAY PYI TAW KAYAH **IUL '23** BAGO KAYIN AYEYAR YANGON MON **21595 EVENTS** 314 TOWNSHIPS TANINTHARYI

FIGURE 1 Myanmar Conflict Map from February 2021 to June 2023

 $Source: International\ Institute\ for\ Strategic\ Studies\ (IISS).$

which economists refer to as rent-seeking. Because much of the increase in Myanmar civil war spending is on government troops paid for using government funds, resources are being diverted disproportionately from the government's provision of important public goods like health care, education, and civilian safety. However, whereas rent-seeking behaviours are just unproductive, a nationwide increase in violence is deadly. A portion of society has to gather resources and funds for both sides of the civil war, hoping one will win, but they are destroying one another in the same country on the exact same soil, utilizing resources endlessly.

The majority of the expenses of civil conflict are never returned to Myanmar as a factor of productivity because most guns and ammunition supplies were sourced from foreign countries such as China and Thailand borders. In Myanmar, the gun's power replaces civil rights. Men armed with weapons, can rob and murder with impunity. Beyond, the collapse of order grants impunity to criminal and antisocial activity behind a veil of chaos. Fleeing is the most common-sense reaction to the threat of theft, rape, or murder (Khattab 2022). People attempt to move their assets to safety while fleeing.

Certain limitations and caveats of this research are worth mentioning. Despite occasionally acknowledging casualties, the Tatmadaw never discloses casualty numbers. Most research institutions and organizations, such as ACLED, ISP, or DATA Myanmar, rely heavily on the news reports from Khit Thit Media, Myanmar Labour News, Democratic Voice of Burma, the Ministry of Defence, NUG, and so on. In the meantime, the NUG releases daily statistics and asserts that opposition forces have killed nearly 20,000 junta soldiers while only losing 2,000 fighters. It is difficult to confirm this, and realistic evaluations contend that these numbers may have been manipulated for propaganda. The death toll statistic is questionable, but there seems to be no other more reliable data available, so most researchers of the Myanmar civil war have to rely on these sources.

Estimating the Economic Cost of Myanmar's Civil War

When studying the cost of war, other than quantifiable direct and indirect costs, scholars are confronted with troubling questions such as: the cost of war-induced immobility, the transaction cost of psychological damage to one's life and its consequences (African Union 2006), or the cost of a deceased son, daughter, mother, or father from the perspective of the one left behind. Furthermore, quantifying the sense of severe insecurity and other unquantifiable figures behind the scenes is nearly impossible. Calculating the probable cost of the Myanmar civil war necessitates not only questionable assumptions, interpolations, and extrapolations, but also pricing the priceless—putting a monetary value on human life. However, it is critical to understand how costly Myanmar's civil conflict is, and the mechanism by which civil conflict damages the domestic economy.

First, this article calculates the direct and indirect costs of the Myanmar civil war. On top of COVID-19's economic decline, the military takeover in 2021 unleashed the country's most devastating economic storm (UNDP 2021). This research assumes that since both sides of the war incurred tremendous costs for the nation, the direct measure is computed by adding up the actual war expenditures of both sides. However, simply adding up the costs of the war effort and the value of lost physical and human capital does not adequately reflect the overall cost of the battle because it does not account for the costs of instability, business disruption, and other economic variables. Even though no comprehensive estimate of such costs has been conducted, various news organizations have vaguely speculated on the extent to which the civil war has harmed the economy. Furthermore, by equating war costs with total capital damage and military expenditure, the calculations may have overlooked both potential additional costs to the overall economy as well as instability, commercial risk and other negative consequences associated with the war (Goldin and Lewis 1975).

The military has consistently demonstrated its blatant disrespect for fundamental human rights as well as a propensity for systematic and sadistic violence against civilians. For more than six decades, it has regularly used this against ethnic groups like the Karen, Kachin, Chin, Rakhine, Shan, Rohingya and many more with complete impunity. However, the civil war after the 2021 military coup seems to have more assassinations and unintended fatalities as the fight rages on (UNHRW 2021).

The first and most serious consequence of the war is the tremendous loss of human lives. Human casualties should be included for various reasons; however, some scholars who investigated these conflict costs have overlooked them. There are several methods for calculating the number of lives lost. A human

capital approach seems reasonable if one wants to determine how much the war's effects on GDP or another measure of economic activity (Boag 1916).

2. Methodology

The cost accounting approach for the economic consequences of conflict is possibly the most direct method and is the main one used in this research. In this method, the financial value of civil war's direct and indirect expenses is simply summed together. Direct cost estimates are based on verified data from public accounts, press releases, news and statistical databases. For indirect costs, the estimate normally includes capital destruction and the compounded value of subsequent production loss (Abadie and Gardeazabal 2010).

Since other methods of war costing require a counterfactual estimate, often derived from a regression model, as well as a theory regarding the interest rate to be used in computing the combined value, such production loss estimates are open to criticism (Goldin and Lewis 1975). Therefore, the straightforward approach of determining war costs, which involves adding up all costs and losses associated with the war and is referred to as the "direct" estimate, is preferable for calculating Myanmar's civil war estimate, given that there is no concrete information available on both Tatmadaw's and the opposition's sides. This statistic takes into account war expenditures as well as the loss of both human and material capital during combat.

The Direct Cost of the Myanmar's Civil War

In general, the direct estimate of the cost of the war covers all war expenses, including those incurred by the Tatmadaw and the resistance, as well as the value of lost human lives and physical capital. However, this article does not account for the losses owing to the disruptive impacts of the conflict, and any large spillover effects from Myanmar's civil war. The direct economic cost of conflict can be defined as a decrease in output from some initial equilibrium condition. Most obviously, the approach includes explicitly accounting for human losses and infrastructure destruction, but it does not account for misery, anguish and increased uncertainty (Collier et al. 2003).

The most significant economic losses from civil war, however, result not from the waste created by diverting resources from production, but from the damage triggered by diverted resources when employed for violence. The greatest apparent cost is the direct damage to public infrastructures and over 80,000 civilian houses (ACLED 2023). Resistance troops also assault physical infrastructure during the fight and sabotage their enemy's communication support lines, such as telecoms, electricity grids, highways, and bridges (Davis 2023). Aside from strategically destroying important infrastructure, Tatmadaw soldiers plunder and destroy residences, schools, and health care facilities (Abuza 2023). Since infrastructure is an essential determinant of economic growth (Canning and Pedroni 1999), such an extensive loss of infrastructure is destined to have a significant impact on the overall economy of an emerging Myanmar.

The direct cost of the war to the Tatmadaw is much simpler to calculate than that of the resistance's. Since there are no reliable sources or records on the resistance's side, this paper has made possible estimates based on available data. Despite being at war, both Tatmadaw and the opposition belong to the same nation and are fighting on the same soil, suggesting that their combined military budgets should be pooled because the cost incurred in this civil war is on the nation. According to the data that is currently accessible, the opposition appears to have a budget of roughly US\$100 million, compared to the Tatmadaw's enormous budgets of US\$2.10 billion (2001), US\$1.78 billion (2022) and US\$2.70 billion (2023), for 2021, 2022 and 2023 respectively (Knoema Data 2022; *The Irrawaddy*, 10 April 2023a).

It is vital to remember that this is only an estimate and is not accurate. Numerous aspects, like the contributions of local donor cells to this fight and numerous unquantifiable elements, are outside the reach of this article.

Reduced GDP as an Opportunity Cost

Opportunity cost is defined as the value foregone when making a specific choice (Buchanan 1991), and Myanmar's full-fledged civil war had, or is having, a huge opportunity cost on its real GDP (Figure 2). In the end, the primary indicator of current economic conditions in this paper is annual GDP per capita income, owing to its near universal availability rather than overarching theoretical considerations. A straightforward addition of direct and indirect costs does not provide a sufficient estimation, so this paper creates an opportunity measure using the "GDP" difference. An estimate of the cumulative loss of output over 2021–23 can be obtained by valuing the deviations of actual real Myanmar GDP from trend real GDP, which is assumed to have been attained in the absence of the war. The methodology for calculating the opportunity cost of war is based on the assumption that the pre-conflict allocation of the area's resources is efficient and that the conflict disrupts this equilibrium—primarily by the diversion or destruction of these resources. The Myanmar civil war's short-run output losses are thus determined by the diversion, depletion, and destruction of the initial resource base, whereas the long-run losses are mostly dictated by the rate with which the pre-conflict growth path is regained by reallocating the resources. Such resource

20

-20

2010 2015 2020 2025

— Real GDP growth (Annual percent change) 2.6

— Inflation rate, average consumer prices (Annual percent change) 14.2

FIGURE 2
Estimated GDP Growth in Comparison with Consumer Prices

Source: IMF (2023).

allocation adjustments, even if fully reversed later, result in deadweight and irrecoverable losses (Judd and Schiavo-Campo 2005).

War has a propensity to lower GDP per capita as measured, in addition to the loss of life and damage of physical and human resources that national income accounting ignores. War-torn nations perform worse than other nations both in terms of production and consumption. GDP per capita declines as a result of lower labour and total factor productivity, which is most likely brought on by the depletion of already-existing physical and human capital, a lack of investment in the creation of new physical and human capital and decreased gains from both domestic and international trade (Collier 1999).

Estimated Cost of Myanmar Civil War

Due to the severe limitations of data availability and the secrecy of Myanmar civil war actors, only a broad range of cost estimates are possible. Using the above civil war accounting technique and assuming a substantially lower direct economic conflict cost throughout the "high and low intensity" conflict period of February 2021 to June 2023, the direct output loss from the Myanmar civil war can be hypothetically calculated at between US\$25 billion and US\$26 billion (as shown in Tables 1 and 2).

Tables 1 and 2 show an estimate of the cost of the Myanmar civil war which factors in direct war appropriations (both parties' estimated cost), human capital loss and destruction of civilian properties and humanitarian aid cost as well as an opportunity cost.

3. The Economic Impact of the Military Coup in Myanmar

Development in Reverse and Resuming Authoritarian Economic Apparatus

Civil wars have far-reaching economic, social, and environmental consequences. Because of large-scale population displacement, significant losses, and millions of refugees, civil conflicts are often more deadly than foreign battles (Collier 1999; Janus and Riera-Crichton 2015). The assumption that civil wars involve substantial economic losses and high opportunity costs of warfare is not exaggerated (Besley and Persson 2009), especially in Myanmar. Myanmar's political economy after the coup can be best described as adverse to growth and backward in development. As the country's economy developed from a closed-door economy towards open-door policies between 2011 and 2020—during the short period of democratic transformation—Myanmar enjoyed the highest growth of GDP in its history (World Bank 2022), and real income per head was multiplied potentially more than three times.

There is evidence that the junta is reinstating an authoritarian economic apparatus. After the coup, military leaders began to take control over the country's economic decision-making, and all economic policies were started within authoritarian central control rather than being market-driven. In the long term, the authoritarian cabinet instituted by the Tatmadaw will have profound impacts on the nation's policy infrastructure (Turnell 2023). More broadly, the authoritarian junta has reduced the effectiveness of many critical economic institutions, including the central bank, the ministry of finance, tax authority, and commercial courts. Institutional and economic disruptions were many times more costly than capital destruction in the Myanmar conflict. The Myanmar state economy began to function without economic fundamentals, resulting in the formation of a massive black exchange currency market and informal trading practices governed by nepotistic patron-client relations between the military, the state, elites and companies. Such interruptions to economic progress are associated with falling levels of investment, a dried-up foreign exchange rate, poor harvests and depressed trade.

Ever since the coup leaders replaced the directors of the Central Bank of Myanmar (CBM), the central bank has changed. The CBM has allowed the junta to check all the bank deposits, accounts, and

TABLE 1
The Direct Cost of Civil War in Myanmar (from 1 February 2021 to 31 June 2023)

The Direct Cost of Civil War in Myanmar	US\$ million
Tatmadaw's Military Expenditure ^a	5,230.00
EAOs' War Expenditure ^b	150.00
PDF Forces Own Expenditures ^c	50.00
NUG's War Expenditures ^d	100.00
Human Capital Loss ^e	4,672.00
Destruction of Civilian Properties ^f	819.00
Destruction of Public Infrastructures ^g (roads, bridges, electricity grids, schools, hospitals)	
Humanitarian Aid Cost ^h	
	152.92
Total	11,373.92

Notes:

- a. Tatmadaw expenditures are based on two and a half years of military operations (2021, 2022, and the first half of 2023).
- b. It would be unreasonable to exclude EAO expenses when estimating Myanmar's civil war cost, despite the fact that some EAOs have been fighting Tatmadaw for more than 70 years. However, the following facts are assumed in this study. From 1 February 2021 to 31 June 2023, there have been approximately 20 EAO groups with approximately 80,000 professional military personnel. According to ACLED data, EAOs fought in 2,584 violent battles against the Tatmadaw over this time period. Their battles had been larger and greater in significance than guerrilla warfare of PDF. The conservative estimate for the cost of these fighting engagements and the entire welfare of 80,000 troops, such as uniforms, meals, ammunition, training, medication, and so on, is expected to be US\$\$150 million, but can reach US\$1-2 billion.
- c. Resistance fighters and supporters have amassed significant funds both inside and outside the nation to fund their battles aimed at undermining the junta. The majority of it has been raised online. Their reliance on crowdfunding, in particular, contrasts with the established EAOs, which prefer to derive cash from taxes within their own region. There are few options to crowdfund in Myanmar's post-coup resistance, which is primarily done online. Most PDFs raised funding individually and therefore could equip themselves and make battles against the Tatmadaw. The following facts are assumed in this study. From 1 February 2021 to 31 June 2023, there have been approximately 500 PDF groups with approximately 65,000 professional soldier personnel. According to ACLED data, PDFs engaged in over 10,000 violent battles against the Tatmadaw over this time period. Basic food expenses for 65,000 people for one year already cost a staggering sum of over US\$21 million if we assume US\$1 per person. Therefore, their own source of funding before receiving NUG support is estimated at least US\$50 million conservatively.
- d. During the period, the shadow government has already raised over US\$100 million.
- e. Another element of the cost resulting from civil war deaths is taken as the expected wage rate of those killed. This is summed up over all years. Hypothetical earnings for those who were killed are calculated using weighted averages of actual minimum wages of 2023. There were over 32,000 people killed in this civil war according to ACLED data.
- f. According to ISP-Myanmar data, at least 81,899 houses and buildings (including religious facilities) have been burnt and destroyed in violent riots since the military coup from February 2021 to June 2023. 24,138 of them were destroyed by fire in the first six months of 2023, accounting for about 30 per cent of the total. This paper assumes that the average cost of a house ranges from 10,000,000 (US\$3,000) to 50,000,000 kyats (US\$15,000) without accounting for inflation.
- g. During the indicated period of Myanmar's civil war, according to the Asia Times, economic infrastructure such as bridges, electricity grids and water utilities, education and health facilities as well as communication towers

and grids have been destroyed, resulting in lower productivity and revenue creation. Infrastructure destruction exacerbates a variety of socioeconomic repercussions on health, politics, technology, society, economy and education. The exact data on infrastructure destroyed is beyond this paper's reach, and therefore estimated conservatively only US\$200 million although infrastructure and all the reconstructions could amount up to over US\$1 billion nationwide.

h. Since the military takeover on 1 February 2021, Myanmar's people have encountered unprecedented political, economic, human rights, and humanitarian challenges as a result of security and conflict dynamics. Almost half the population is expected to be impoverished by 2023, wiping off the development achievements recorded since 2005. Since 1 February 2021, about 1.2 million people have fled their homes, bringing the total number of internally displaced persons (IDPs) in Myanmar to a startling 1.5 million as of 26 December 2022, with no signs of slowing down in 2023. Although local donation organizations contribute some additional resources on this, this study exclusively takes data from UNHCR publicly released statistics.

Sources: Trading economics, World Bank, *The Irrawaddy*, UNOCHA, UNHCR, *Bangkok Post*, Institute for Strategy and Policy – Myanmar, *Frontier Myanmar*, ACLED, *Asia Times*.

TABLE 2
The Loss from Overall Economy, GDP

The Opportunity Cost of Civil War in Myanmar	US\$ million
Opportunity cost	13,840.00
(the loss GDP 2020–21) ^a	

Notes:

In calculating the opportunity cost of the Myanmar coup, this paper only considered GDP differences between 2020 and 2021. However, as previously stated, there can be many other opportunity costs, and while some can be valued in monetary terms, a significant proportion are extremely difficult to quantify (see No. 6 and Table 3 for more information).

Sources: Trading economics, World Bank, *The Irrawaddy*, UNOCHA, UNHCR, *Bangkok Post*, Institute for Strategy and Policy – Myanmar, *Frontier Myanmar*, ACLED, *Asia Times*.

safe deposit boxes (Central Bank of Myanmar 2022). One example of arbitrary and erratic economic policy was the CBM's shocking directive of within a 24-hour conversion from foreign currency to kyats, which left people perplexed about how to proceed with any businesses, exports, or imports, as well as engaging with foreign experts and firms (*The Irrawaddy*, 6 April 2022a). That was a desperate attempt by the CBM to limit the foreign currency outflow and regain control over the entire economy through a clear authoritarian control mechanism. As the destructive momentum of the conflict grows, the country finds itself resource-constrained, and the junta increases its extraction of revenues from the population, such as by raising communication and Internet taxes, hijacking all US dollars in banks with a set exchange rate much lower than the real rate, tightening imports and exports, forcibly exchanging foreign workers' remittances, and so on.

In recent years, Myanmar has been assessed by various international metrics as one of the most dangerous countries for doing business, and it is on the verge of collapse because of its authoritarian

governing apparatus (VOA News 2022a). Myanmar's economy was beginning to gain momentum in 2015–20, and most economic decisions were then governed by free-market mechanisms and a floating exchange regime scarcely interrupted by the government. The coup leader's planning cabinet now imposes restrictions and determines what to import; what is produced, and how; who will get electricity; who will be allowed to get the foreign currency; and how fuel will be imported and distributed. Myanmar's economy has become an arm of authoritarian rulers whose primary goal is controlling "power" rather than societal needs. The Myanmar economy now is "less predictable, less clearly communicated, and characterized by more discretion" (World Bank 2022b), as it functions in a hierarchy and is subordinate to the commanding power, which has harshly reversed the process of the country's economic development.

The macroeconomic crisis in Myanmar is enormous. Since the Myanmar conflict is a civil war, both sides' expenses were forced to be extracted from the country's resources. Given its control of the CBM, the assets of the state, and its ability to exert pressure on the private sector, the military administration has a considerable economic advantage over the resistance (International Crisis Group 2022). It has, however, had difficulty sustaining economic stability as a result of an amalgam of strong political resistance to its rule, external influences, economic sanctions, its depleted foreign exchange reserve, the severe economic shock of the coup and its own economic mismanagement. By enforcing severe capital restrictions, restricting imports, printing more money and holding the exchange rate unrealistically high, the junta has made the problem worse, further weakening trust in its competence.

Economic Impact on the People: Living in Myanmar Is Now Absurd

The civil war has brought reduced incomes, extreme inflation, rising commodity and fuel prices, extreme electricity shortages and difficulty accessing cash that further compound food insecurity, particularly for the common people at the bottom of the pyramid who have almost no savings. Soaring prices and movement restrictions, combined with persistent insecurity, have left the most vulnerable people struggling to access even basic food and supplies, which are becoming increasingly scarce, while their safety, well-being, and quality of life have drastically declined. Prices for key household commodities in some states and regions, such as Chin State, Rakhine State, and Kalay Region, have risen significantly, up to three or five times more since the coup, making some food items increasingly unaffordable. For most people, after losing their jobs because of the conflict, selling assets became an increasingly popular coping mechanism over time.

According to the World Food Program (2023), 15.2 million people (about 25 per cent of the population) are estimated to face food insecurity in Myanmar, and half the population is now below the poverty line. COVID-19 impacted the consumption of people in the bottom 40 per cent of the distribution and saw a 14 per cent drop from 2019 levels. However, after the coup, consumption was even further reduced among the vulnerable bottom 40 per cent and dropped by 25 per cent further (Karamba and Salcher 2022). More specifically, 36.9 per cent of households towards the end of 2022 and 42.1 per cent by mid-2023 relied on asset sales to mitigate the impact of the income shock. As some of the items sold were means of production (e.g., cattle) or earning money (e.g., a motorcycle and a boat), households risk remaining in poverty for an extended length of time (UNDP 2021).

Under the mismanagement of military coup leaders, Myanmar is now back to an even darker age (literally) as compared to 2010 and is now facing a severe shortage of electricity, with only 2–3 hours available per day even for big cities like Yangon and Mandalay (VOA 2022b). A severe shortage of electricity pushes up the cost of production and restricts the fundamentals of economic activity in the market. All the businesses have to rely on their own generators for electricity, so running businesses becomes extremely expensive.

Even as global inflation rises as a result of Russia's war on Ukraine, the kyat's value continues to fall against the US dollar, as shown in the Appendix. Therefore, Myanmar industries' supply side was enormously impacted by the coup's shock. This "lost value" of the Myanmar kyat pushes foreign exchange rates very high (*Frontier Myanmar* 2022), and all the input costs for production and all imports rise along with fuel costs. Hence, most commodity prices in the consumer market saw a three- to fivefold increase in many areas of the country.

The effects of the coup leader's mismanagement of the economy are felt most intensely by consumers wrestling with the impacts of the civil war. Myanmar's people are more vulnerable than before the coup, and now most spend a relatively large proportion of their income on food. However, the relative incomes of Myanmar's people have become 15 per cent lower than before.

The rising cost of supply and very low demand in the market compelled some factories to shut down, and workers lost their jobs in massive layoffs. The International Labour Organization (ILO) estimates that over 1.6 million workers have been laid off (ILO 2022). Workers with faltering confidence returned home to their villages, adding the pressure of financial difficulties to the village families. The majority of them may eventually be forced to look for low-wage jobs in neighbouring countries, particularly Thailand, China, Singapore and Malaysia (*The Irrawaddy*, 18 August 2022b). This coup's aggregate shocks have immensely wounded business, household and individual incomes, on top of existential threats.

Since the 2021 military coup, more than 80,000 villager homes have been blasted and burned to the ground. Their goods, including motorcycles, bicycles, and furniture, as well as food storage, were looted (ACLED 2023). Their animals had been stolen, slaughtered or burned alive by soldiers who killed them to instil terror. One of the four "cut" strategies of coup plotters in warfare is cutting all the supplies, food and medicines, including the Internet and mobile data. Internet and communication outages usually occur after the military intensifies its raids on villages (*Myanmar Now*, 4 March 2022a). According to the Global Centre for the Responsibility to Protect (GCR2P 2023), disruptions to the Internet and communication systems severely limit information availability throughout the country. Coup plotters have ordered all telecom operators to cease service "indefinitely, especially in the military operation areas, while tripling the price of mobile data nationwide" (Nachemson 2022). Internet access has been restored in military-controlled places such as Yangon and Mandalay, although outages and blockages remain in anti-junta strongholds. As of September 2022, 54 of the country's 330 townships were without Internet (*Myanmar Now*, 4 March 2022a).

The severe impact of long-term communication disruption is first felt by the most vulnerable people, especially when they need medical assistance; secondly, on the transportation and distribution of basic goods such as medicine and food to affected communities, as drivers are unable to judge how safe the roads are to travel on; and thirdly, on the whole economy with far-reaching consequences because of the internal complexity and high levels of interdependence between infrastructures, communications, electricity, and the effectiveness of the division of labour.

When faced with the threat of such losses, people tend to protect their assets by relocating capital abroad, if possible (Fielding 2004), and wealthy Myanmar citizens have purchased condominiums in Bangkok, Thailand during this crisis (Katharangsiporn 2023). On the other hand, it is rational that most investors are likely to pass on Myanmar, where market fundamentals such as security, law enforcement, and basic infrastructure, are lacking. Coup leaders may already be on their way to agreeing to some Chinese projects, such as dams, power plants, and seaports. They are negotiating future Russian deals for fuel and are allowing currencies such as Thai baht, Russian ruble, and Chinese yuan for trading and exchange purposes. This, however, does not mean that the US dollar is not necessary, especially to buy weapons for further military operations (Reuters 2022). The majority of these projects, however, do not generate economic benefits or a factor of productivity for the country because of high levels of corruption and rent-seeking.

Social and Humanitarian Crisis of Myanmar's Civil War

Civil war's most direct human consequences are fatalities and the displacement of people. Approximately 90 per cent of the casualties resulting from the Myanmar civil war are civilians. It has intensified, and before the end of this tremendously destructive and fierce battle, Myanmar could fall to pieces. People in Myanmar are now facing serious challenges as a result of lost jobs and diminished livelihoods. Challenges also include providing widespread access to basic services and social safety nets, creating the necessary fiscal space, and containing the conflict that is spreading throughout the country and resulting in growing insecurity among civilians. This current conflict has left 15.2 million people in dire need of humanitarian support, according to the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA). Clashes and targeted attacks between actors continue across the country. The number of casualties has increased, while many villages, small towns, houses and other civilian properties have been burned down or destroyed. As a consequence, this situation has pushed a tremendously large population (1.8 million people) into displacement and the trend is on the rise (Figures 3 and 4) (UNOCHA 2023a). The country is now set back into a poverty trap and nearly half of Myanmar's population is now living below the poverty line (Figure 5) (UNDP 2022).

The northwest part of Myanmar, including Sagaing, Magway, and Chin (as well as Thai border areas), has recorded the highest level of conflicts and new internal displacements, followed by the southeast part of Myanmar (Kayin, Kayah and Shan). These vulnerable displaced populations face significant challenges

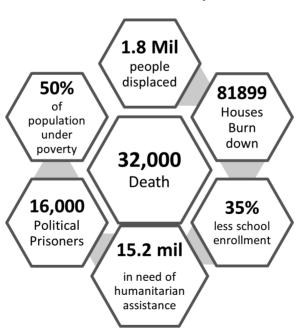
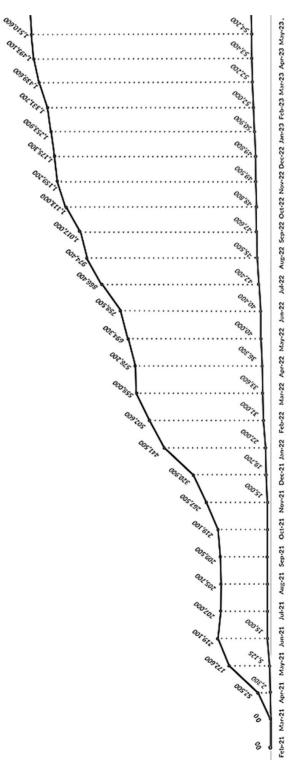


FIGURE 3
Social and Humanitarian Crisis of Myanmar's Civil War

Sources: AAPP (2023), ISP Data (2023), ACLDE (2023), UNHCR (2023), WFP (2022), UNDP (2023).

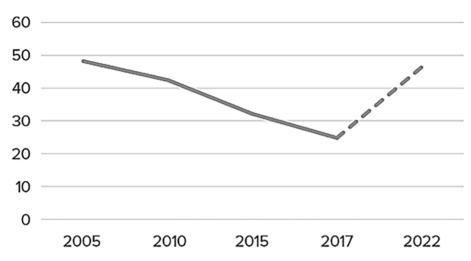
FIGURE 4
Displacement Trend



Estimated refugees, displaced to neighbouring countries since 1 February 2021 (as of 3 July 2023) Estimated IDPs, displaced since 1 February 2021 (as of 3 July 2023)

Source: UNHCR (2023).

FIGURE 5
Myanmar's Poverty Headcount (%), 2005–23



Source: UNDP (2023).

in accessing basic needs, specifically food, healthcare, shelter materials, clean water, and sanitation facilities. Women, children, and persons with disabilities (PWDs) are particularly vulnerable amid this crisis, exposing them to risks of exploitation and abuse. In particular, children are facing all forms of conflict-related violence, including killing, physical injury, trafficking, recruitment and use in armed conflict, sexual violence, arbitrary arrest, and unlawful detention of adolescent girls and boys. Although the impact of the Myanmar crisis could be somewhat comparable to the extent of the parallel crisis in Ukraine, the aid received in Myanmar seems to be less than 10 per cent of that in Ukraine, and only 28 per cent of the needed humanitarian response has been funded, according to UNOCHA (2023b). The Myanmar conflict's urgency and its humanitarian situation are dire, but even agreements on humanitarian corridors are holding.

According to the INFORM Risk Index (2023), Myanmar scores highest with a 10/10 for hazards and human conflict exposure, 9.2/10 for hazards and exposure, and 5.5/10 for vulnerability, with development, deprivation, and inequality being the most serious problems. Its institutional capacity became too low after the coup and ranks a 6.1/10 lack of coping capacity for hazards, exposure, and vulnerability.

Opportunity Costs and Other Costs of Myanmar's Civil War

Civil war has a political rationale for resistance forces in Myanmar; it serves as a catalyst for societal change. It is a revolution to end militarism and establish federal democracy. For the Tatmadaw, the definition of "nationalism" is confined to the Tatmadaw, the ultimate leader of the nation, and it is primarily supported by soldiers. Hence, most fighters might accept the terrible costs incurred and collateral damage suffered during the war as a high but necessary price to pay for future reforms. However, it is far from

being a catalyst for beneficial change; the civil war in Myanmar seems to leave a persisting legacy of poverty and misery.

There is a huge opportunity cost and other costs (Table 3) as a consequence of such a military coup. The total loss of income, including direct costs, opportunity costs, and other costs as mentioned in Table 3, during the Myanmar civil war could be around 50 per cent of a year's GDP. This is significantly greater than the loss directly caused by the extra government military spending, implying that the majority of the costs of war are due to the negative effects of violence rather than simply the waste of money.

What if, on the other hand, the military coup could have been prevented, and we assumed there was no civil war in Myanmar? What kind of economic opportunities would there have been in democratic

TABLE 3
The Cost of February 2021 Coup and Conflicts (as of June 2023)

Physical cost	Over 32,000 people killed (both parties)
	Above 13,000 people detained
	Thousands injured
	Above 400 villages and small towns looted by the military
	Above 38,000 residences, houses burned down by the military
	Over 1.6 million lost jobs
	Destruction of infrastructure
	Over 1.5 million people displaced internally
	Severely reduced mobility
	Increased cost of veterans' care and disability
Psychological cost	Moral degradation
	Insecurity
	Fear
	Suicidal ideation
	Risk of mental challenges
	Risk of psychological distress
	Post-traumatic stress disorder (PTSD)
Direct economic cost	Economic shrinkage of 30 per cent and counting
	Loss of international investments and FDI
	Soaring unemployment
	Hyperinflation
	Economic sanctions
	Banking crisis
	Raised national debt
	Doubled or tripled commodity prices
	Near failed economy
	Inflow of foreign currency restricted
	Collapse of many SMEs
	Surmounting war expenses (Tatmadaw, PDFs, EAOs)
	Electricity shortages

continued on next page

TABLE 3 - cont'd

Indirect cost	GDP losses
	Raising poverty
	Food shortages for 14.4 million people
	Collapse of the healthcare system
	Crippled education system
	Emergent of large black-market economy
	The rise of corruption, rent seeking, elitism, cronyism
	Future cost on the borrowing
	Future interest on war borrowing
Social and political costs	Serious human rights and civil liberty violations, including detention without trial, rape, torture, arrest, killings and burning civilian houses
	Tremendous increase in surveillance, and racial profiling
	Weaponizing laws against citizens
	Psychological destruction of millions of women and children
	Media and communication restrictions
	Reduced availability of doctors
	Reduced availability of medical care
	Less school enrolment
	Shortage of teaches
	Shortage of government staff
Environmental costs	More trees cut down
	Over-exploitation of natural resources
	Collapse of regulatory and environmental oversight institutions
	Frequency of heatwaves, floods, cyclones, droughts, and rising sea levels
Spillover impact on	Illicit trade
neighbouring countries	Borderline chaos
	Arms trade
	Drug trade
	Human Trafficking
	Refugee inflows

Myanmar under the NLD government? While there can be a lot of speculation and a lot of would-have-been scenarios, most economists will agree that the Myanmar economy would have improved further. Therefore, the opportunity cost assumption would include investing war dollars in alternative sectors and the normal rate of increase of the Myanmar economy (GDP) if there is no coup.

Some of the facts are unjustifiably and unquantifiably complex, e.g., psychological transaction costs, and the social cost of reduced doctor availability. A general understanding of the budgetary costs of the Myanmar civil war is further limited by the secrecy of local revolution units, faulty accounting and the deferral of current costs. The current civil war in Myanmar has been financed almost entirely by Myanmar nationals, both inside and outside the country, mainly raised online and through crowdfunding;

transactions have been secretly made to the dispersed armed cells. War spending has resulted in enormous opportunity costs for the Myanmar economy because most arms and artillery were sourced from the black market and from neighbouring countries. Military spending in Myanmar does not create jobs but rather reduces them by up to 1.6 million, resulting in the total failure of healthcare and schools, on top of the macroeconomic cost of normal GDP growth. Furthermore, non-military public infrastructure investment, such as roads and schools, has not increased but has decreased as much as the investment in military infrastructure.

Regarding the psychological cost, as lived experiences in this civil war show, it has caused severe psychological distress among communities of Myanmar people. War-related deaths are just the tip of the iceberg, but mental disorders and psychological illnesses are paramount on top of endemic poverty, malnutrition, infirmity, and economic and social deterioration. There is a growing corpus of studies highlighting increased mental distress in such a war, such as sexual abuse, issues of safety, fear, instability, health, sickness, the economy, and so on (Murthy and Lakshminarayana 2006). This civil war has changed the way the subordinated side sees itself, its worldview, and its political opinions, from ordinary citizens to dissidents. This reversal in identity and perception opens the door to the possibility of normative and behavioural shifts that could impact the subordinated side's political system. If we can conduct a thorough study on such psychological costs, it would be beneficial to conduct more research on uncertainty and mental anguish in Myanmar. Many studies in other countries show that trauma, as seen in conflict and post-conflict situations such as Myanmar, causes significant mental stress and associated social problems, as well as medically defined PTSD syndromes, anxiety, and depression, all of which cause significant morbidity and retard development even after the war has ended.

In addition to instilling terror in the population, the Myanmar military is able to manipulate laws in its favour. In the hands of the leaders of the military coup in Myanmar, laws became weaponized and were manipulated as part of the dictatorial apparatus that criminalized doctors for saving lives, teachers for teaching children, young people for peacefully protesting and donors for donating to the IDP camp. The entire legal system has been overhauled, and most of the laws used by former dictators have been reinstated. There are no longer civil rights to privacy and security that would protect against arbitrary arrest, search, or seizure. The junta has also amended the Penal Code (505) to crack down on civilians who speak negatively about the coup and the military, and to suppress supporters of the "civil disobedience movement" (Kyaw 2022). It has also amended the Ward and Tract Administration Law, which dates back to the British colonial era, to reintroduce mandatory registration for overnight guests, which means that police can enter any house at any time of day or night and search anyone without a warrant. With the amendment of the Criminal Procedure Code (Human Rights Watch 2021), anyone can now be arrested without a warrant in Myanmar. In addition, to control the flow of information on social media, mainly targeting 22 million Facebook users, the Electronic Transactions Law was enacted (Myanmar Now, 19 February 2021), which allows the arrest of anyone for spreading information in cyberspace, including criticizing coups and dictators. Simply put, the junta can now put anyone in jail for Facebook and other social media activity if it deems it necessary.

Furthermore, the military takeover of Myanmar in 2021 has severely interrupted the education system of Myanmar, forcing many current and prospective university students to pause their studies, and increasing fears among educators about the country's learners' future. Such a war will likely also have negative effects at the school level in terms of the number of teachers, instructional quality, and the provision of educational activities, which are exacerbated by lower education budgets as local, regional and federal government resources are transferred to the war effort (Jones et al. 2022). Since the military coup in 2021, schooling has been disrupted by the following factors: recruitment into the armed forces or organized youth movements; destruction of school infrastructure and records by occupying forces; inability to concentrate on education due to trauma and stress; and loss of educational aspirations due to

fears of prolonged insecurity. It is now projected that the school enrolment figure has decreased by more than 35 per cent.

Besides having an extremely small budget compared to the military budget, Myanmar's public health system has basically collapsed since the coup, with many healthcare personnel jailed or targeted by the military for their association with the civil disobedience movement (CDM). Before the coup, people with healthcare needs could be managed by local clinics and hospitals. Now, many healthcare providers, doctors, and nurses are taking part in CDM, and universities are closed due to faculty shortages of teaching staff in clinical fields caused by CDM involvement (Sarli, D'Apice, and Cecchi 2021). People must now seek assistance and pick up daily medications (e.g., hypertension, diabetes and/or HIV medication) in surrounding towns. When neighbourhood clinics run out of medicines, patients are forced to travel further, only to pay even higher fees for their medications. Travelling to remote areas, however, is not always possible due to a scarcity of gasoline and increased casualties. Treatments in privately run hospitals are now extremely expensive because of high inflation (Insecurity Insight 2022). Due to this situation, many Burmese have relocated to neighbouring countries for healthcare, and those who are unable to travel have abandoned their healthcare. Although there are no statistics yet available on deaths due to a lack of healthcare, the death toll from such a lack of care is significant and on the rise.

On the environmental front, Myanmar has a long history of state-sanctioned overexploitation of natural resources ranging from minerals and precious stones to forests and oil and gas, which has resulted in a polluted and degraded environment, human rights violations and decades-long conflicts. Because of its vast coastline, which stretches approximately 2,000 kilometres on its western side, the country has always been subject to the effects of natural calamities. The majority of the population lives in low-lying areas where poverty is prevalent. However, after the military coup of 2021, civil society groups and organizations that used to encourage the government to be more equitable and environmentally friendly have been silenced. Some of them have fled. These environmental advocates are targeted by the military, which seeks to suppress criticisms of the junta's environmentally harmful actions and corruption-ridden infrastructure projects. Myanmar was ranked second most vulnerable to extreme weather occurrences in the 2021 Global Climate Risk Index out of 183 countries. Climate change poses a serious danger to livelihoods and sustainable development by increasing the frequency of heatwaves, floods, cyclones and droughts, as well as rising sea levels, all of which influence production, food security and land scarcity. Since the coup, regulatory and environmental oversight institutions have collapsed, leaving local populations with nowhere to turn to file concerns about the consequences of extractive projects on their land rights, local environment and livelihoods (Kyed and Chambers 2023).

Nations bordering Myanmar are experiencing "spillover" consequences from refugee flows, sickness, chaos, and the illicit trade in minerals, weapons, and drugs (De Groot 2010). Myanmar is becoming a region of instability and disorder as a result of the multilayered coup crises and destabilizing forces in power, with consequences that reach beyond its boundaries. Previously, such military coups have resulted in instability and spillover, but the expanding scope of this iteration makes the situation far worse for Myanmar's neighbours than before. The Myanmar-Thai border, Myanmar-China border, and Myanmar-India border regions have seen an unprecedented increase in drug trafficking this year since General Min Aung Hlaing seized power on 1 February 2021. Myanmar's post-coup civil war and cash shortage have reduced narcotics enforcement capacity and allowed traffickers free rein (Reed 2021). Myanmar's regional stability, regional security and long-term development are jeopardized due to the impact on confidence and social cohesion. The crisis has also spread to these bordering countries, causing problems that are expected to persist, such as economic strains caused by hosting refugees. Countries bordering Myanmar's high-intensity conflict zone experienced a decrease in economic activity, except for a few positive economic gains such as brain gain and asset movements from vulnerable people.

4. Conclusion

As of June 2023, the direct and indirect costs of Myanmar's civil war ranged between US\$25 billion and US\$35 billion, and they continue to rise. As illustrated in Table 3, there may be many more aspects to consider when calculating the total cost of the coup. Even though this study has examined only the possible costs of civil war within Myanmar (within its limited reach of data), it has been shown that the majority of suffering caused by civil war occurs to non-combatants, mainly villagers, who are generally powerless to negotiate or settle the conflict. Therefore, civil war inevitably destroys far more than just physical plants and infrastructure. The essence of the damage is done to society's economic fabric and, moreover, to the very fundamentals of social capital: trust among actors.

After the coup, Myanmar's economic policies were reset by the junta, with major changes to the country's policy apparatus such as replacing the floating exchange rate with a fixed exchange rate, like in the old authoritarian military era. The Tatmadaw's governing apparatus became the primary reason for the country's dysfunctional economy, with the military exercising excessive control over economic policy as "they see fit". Without "trust" in the future of the market, economy, and ruling government, Myanmar's nascent banking industry faces a "crisis". Due to dried-up foreign exchange, economic sanctions, civil war and mismanaged bureaucracies, demand sharply declined while the supply of raw materials and imports became extremely limited and many times more expensive. Therefore, the military was not able to cope and cannot hope to in the near future with the shortage of foreign reserves and its overspending on "military operations" to eliminate threats. Consequently, coup leaders can no longer provide the basic fundamentals for the day-to-day functioning of the market, such as electricity and fuel supply for market activities, and are likely to form for several more years to put additional pressure on the businesses running inside the country.

For the future, the military's intent with its economic policy-making apparatus is clear. It will pursue ultra-centralized control; its policies will be centred on "maintaining power" rather than addressing society's needs. The coup leaders might resolve the economic wounds of the coup with short-term solutions such as selling bonds and "excessive money printing" (which will have a long-term impact on the economy with high inflation, undermining trust, higher prices in inputs and imports, and less productivity, therefore having an overall tremendous negative impact on the economy), siding with like-minded countries like China, Russia and Thailand, while many businesses have collapsed and many are on the brink of shutting down. Should there be a longer period of such pressure from civil war and economic mismanagement, the Myanmar economy is likely to withdraw back towards the level of how it was during the time of the old junta (2000–10) and descend back to that of a least-developed country. Even if Myanmar's civil war is ended now and the democratic process is revived as before, the long-term impacts of the destruction of infrastructure and other losses are so immense that it would take many years for the recovery and social progress to occur. Many of the war's costs will be passed on to future generations and continue to mount even after it has ended.

Recommendation

It is strongly urged that establishing humanitarian corridors for civilian evacuation and humanitarian aid delivery is the most urgent matter parallel to stopping such a civil war. At the bare minimum, safe evacuation routes should be provided for civilians who are being forced to flee by the worsening situation. Myanmar must be granted access to safe humanitarian corridors. However the world's leaders have chosen to approach Myanmar's problem over the last two and a half years, it has not stopped the civil war in Myanmar, for which ordinary people suffer tremendously. Therefore, there is a most urgent need for a change of tack—not to deepen the crisis but to end this death drive as soon as possible through diplomacy, accountability, de-escalation and multilateralism.

APPENDIX

Case Study—Exchange Rate, Loss of Foreign Exchange, and Depleting Investments

The coup has had a devastating impact on Myanmar's economy and institutions. As the Tatmadaw exerts control over political and economic activity, institutions such as the judiciary, police and civil services become highly corrupt. The conflict in Myanmar has also resulted in high inflation and exchange rate pressures. Myanmar's fiscal spending and credit are now being redirected to the coup plotters' decision table. More broadly, the authoritarian junta has reduced the effectiveness of many critical economic institutions, including central banks, ministries of finance, tax authorities and commercial courts. Institutional and economic disruptions were many times more costly than capital destruction in the Myanmar conflict. Coup plotters have caused very high inflation in Myanmar because they didn't know better. The government's rejection of "neo-liberal" economic ideology and the concept of the market, as well as its contempt for specialists with academic training (who were either put in jail or terminated), led it to rely on policymakers with little if any formal background in economics. In contrast, there seems to be no economist occupying the main economics position in the cabinet; the Central Bank president is neither an economist nor did he hold any other significant position. There is not a single economist among the members of the Central Bank board (*The Economist* 2022). Coup leader Min Aung Hlaing himself argued that the greed of the traders, class struggle, and coordinated international economic sanctions were the main drivers of inflation rather than monetary policy.

There are also restrictions on fund inflows to the junta, sanctions and the exodus of investors from Myanmar; it hurts all walks of life in Myanmar. The flow of foreign funds into the country has slowed since the 2021 coup. This was partly caused by the impact of targeted economic sanctions but is mainly due to some international organizations scaling back their presence and investors suspending their business activity. State revenues have also been hit hard in the country by falling payments of taxes and non-utility bills nationwide as part of the civil disobedience movement, which people have withheld to express opposition to the military takeover (Robinson and Wallace 2021). After the coup in 2021, the World Bank and Asian Development Bank froze funding in order not to support the coup leaders and stopped ongoing projects worth billions of dollars due to the recent developments in Myanmar. When various Myanmar government reserve fund accounts in various countries, including the United States and Singapore, were also frozen, the depleted flow of foreign hard currency into Myanmar was almost the single most damaging factor to the junta's survival. International economic sanctions alone may not be as damaging to the junta's survival because Myanmar's revenue is still based mostly on resource extraction. Nevertheless, Myanmar is now witnessing a lot of foreign investors leaving on the grounds of "prospects and business ethics" and threats to their business continuity in such a dangerous environment. These investors used to capture the benefits of the economic frontier after the military's grip was loosened in 2010, and there were tremendous changes in the inflows of capital and investment (World Bank 2022).

However, the well-worn path of economic mismanagement and structural backwardness was already evident shortly after the military's brutal coup. Conducting business in Myanmar now exposes any investor or firm to significant reputational, financial, existential and legal risks. Giant investors in different markets, such as Telenor in telecom; Chevron, Woodside, Total and EDF in the oil and gas sector; Kempinski in hotels; Kerin in beer; H&M; and many more are leaving Myanmar now (Oo and Liu 2021). Therefore, it is inevitable that the foreign private sector may be unable to provide the desired investment flows. Most projects valued in the billions of dollars are likely to be paused or reconsidered in times of crisis (Associated Free Press 2022). Possibly, the pain of the economic struggle is even more devastating than the coup itself for millions of people in Myanmar.

The United States unveiled a new set of sanctions in late June 2023. By including the Myanmar Foreign Trade Bank (MFTB), Myanmar Investment and Commercial Bank (MICB) and Ministry of Defence on its list of sanctioned entities, the US Treasury effectively blocked any of their transactions that go through a US bank in order to restrict "transactions between the military regime and foreign markets", particularly for the "purchase and import of arms" (Miller 2023). Sanctions against MFTB and MICB could cost the junta an estimated US\$2 billion per year and force the junta government and Myanmar enterprises to conduct business in the US dollar. It is likely the most devastating blow to the junta, even more so than all the violent strikes (*Frontier Myanmar* 2023b). Nonetheless, it also causes considerable economic harm to the people of Myanmar through higher inflation.

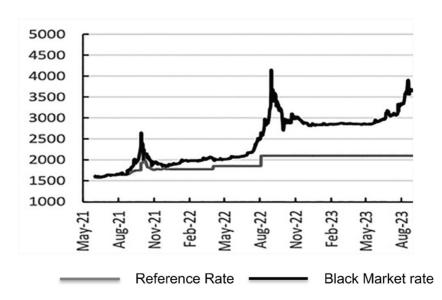
The junta seems to counter this sanction threat with the policy they know best: more money printing and connecting with currencies other than the US dollar, such as the Thai baht, Chinese yuan, and Russian ruble. On 31 July 2023, the junta-controlled Central Bank of Myanmar issued new 20,000-kyat banknotes, which are worth twice as much as the current highest denomination of 10,000 kyats (*Banknote World* 2023). The introduction of new banknotes has sent a shock of inflation hysteria through Myanmar's financial markets, raising concerns among businesses and the Myanmar people about further economic turbulence and hardship.

Even as global inflation rises as a result of Russia's invasion of Ukraine, and the kyat's value continues to fall against the US dollar since the 2021 coup (as shown in Figure 6), the exchange rate against the US dollar, which was MMK1,300 prior to the coup, has risen to MMK3,300 as of September 2021. The Myanmar kyat has lost its value by up to 75 per cent. The normal price for 1 litre of diesel before the coup was only MMK850, at an alarmingly high rate of MMK2,400–2,500 in March 2022 (Money Exchangers 2022). It has grown even more since two banks were sanctioned, fuelling fear in the market to the point where even the middle class in Myanmar struggles to make ends meet. By 18 August, the exchange rate had hit a new high of MMK4,005 for US\$1.00 (Money Exchangers, 2023), and fuel and other commodity prices had risen 1.5 times, if not twice, overnight.

The kyat's exchange rate against the Thai baht and the Chinese yuan has fluctuated significantly. Such fluctuating rates make routine trading incredibly difficult. There is a distinct sense of fear in the market. The junta's decision to issue a new 20,000-kyat bill in July significantly damaged public trust in the currency, generating disruptions in gold and foreign exchange markets as well as inflationary fears. The decision by Singapore's United Overseas Bank (UOB) to suspend transactions with all Myanmar accounts due to US sanctions has also contributed to the kyat's depreciation. There is no faith in the coup leaders, and fixing exchange rates is impossible (*The Irrawaddy*, 17 August 2023b). Despite CBM fixing the rate now at MMK2,100 against the US dollar, almost half of the kyat's actual price is in the market; the real market trade and exchange happen outside the governing laws, which creates a large illegal dollar trade and a black market. CBM also revoked the licences of many currency-exchange companies, with the intent of restricting dollar exchange in the market and dollar outflow. However, this just opens the door to a large black market exchange rate since no one is trading with CBM's rate.

Myanmar's currency issue highlights the complexity of a country dealing with civil war. As the destructive momentum of the conflict grows, the country finds itself resource-constrained. The junta is increasing its extraction of revenue from the population, such as by raising communication and Internet taxes, hijacking all US dollars in banks with the set exchange rate, which is much lower than the real rate, tightening imports and exports, and forcibly exchanging foreign workers' remittances (*Mizzima*, 5 June 2023). The junta continues to tighten its grip on power with daily killings, restricting foreign currency flows, and resuming authoritarian apparatus in the market economy; therefore, a failed economy seems not too far away.

FIGURE 6
US Dollar to Myanmar Kyats Exchange Rate After February 2021 Military Coup



Source: World Bank, Money Exchangers.

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