The Impacts of IMF Programs on Energy Sector Investments in Pakistan

by

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Abstract

This paper investigates the impacts of the International Monetary Fund's programs on Pakistan's energy sector between 2001 and 2023. It argues that the conditionalities that were enforced by the IMF on Pakistan between 2001 and 2023 and the rising cost of debt servicing due to higher interest charges, decreased energy sector investments in Pakistan. To support this argument, the paper identifies and discusses the primary causes of energy sector crisis in Pakistan, such as the circular debt crisis, geopolitical tensions, and aging infrastructure. It reviews the IMF's lending policies, for instance its surcharge policies, and its impacts on developing countries. Furthermore, the paper provides a literature review of the prolonged socio-economic impacts, such as lower healthcare spending and higher poverty rates, of IMF programs on Pakistan's economy. It discusses the main conditionalities of lower exchange rates, higher interest rates, and lower subsidies, imposed by the IMF under several programs and the subsequent impacts on the energy sector. The last few chapters discuss the methods of the study, the results, and implications of IMF loans on Pakistan's energy sector. Using publicly available energy sector data from the World Bank and a semi-log multivariable regression model, this study finds that between 2001 and 2023, IMF programs decreased energy sector investments in Pakistan at a statistically significant level. Specifically, energy sector investment in Pakistan decreased by 109% if the country was enrolled in an IMF program two years prior. The study also finds that a one percentage point increase in debt to GNI ratio leads to a 1% decrease in energy sector investments if Pakistan was enrolled in an IMF program two years prior. Even though the study found a negative correlation between IMF interest charges and energy sector investments, the results were not statistically significant.

"With great power there must also come- great responsibility.[1]"

- *Stan Lee*

[1] (Lee and Ditko 1962)

Introduction

Early in 2023, the Pakistani rupee (PKR) depreciated by a record 28% against the dollar triggering widespread concern across the country[2]. The sharp decline of the currency resulted in higher import costs for essential goods, contributing to higher inflation and a rapidly depleting foreign reserve. A weaker rupee also increased the cost of debt servicing and principal repayments, straining the economy further. By early February, Pakistan's foreign currency reserves were down to USD 3 billion, barely enough to cover three weeks of imports[3]. The country was teetering on the edge of a sovereign default when the International Monetary Fund (IMF) approved a 3-billion-dollar bailout in July, providing temporary relief to the country[4]. In 2023, Pakistan's GDP contracted by 0.03% and inflation surged to 30%, the highest in the country's recent history[5].

In fact, Pakistan's economic performance since the beginning of the new millennium has been somber. Compared to its neighbors, Pakistan's per capita GDP growth has been slow and development indicators, such as access to electricity, healthcare, and education, have lagged[6]. Additionally, foreign direct investment (FDI) has dwindled and exports have stagnated, pushing the economy further into decline[7]. As a result, Pakistan frequently finds itself mired in a balance of payment (BoP) crisis, forced to seek help from the IMF. As of 2025, Pakistan has been bailed-out by the Fund, under several programs, 25 times, one of the highest numbers among member countries[8]. The IMF programs are typically accompanied by extensive policy reforms, commonly known as conditionalities, that are usually prerequisites for disbursement

[2] ("Pakistan is at risk of default" 2023)
[3] Ibid.
[4] (Hoskins 2024)
[5] (World Bank Group, Data: Pakistan 2025)
[6] (Husain 2025)
[7] (World Bank Group, Data: Pakistan 2025)
[8] (International Monetary Fund, International Monetary Fund: Pakistan 2025)

of loans and can have substantial impacts on the recipient country's economy. For instance, the 2024 Extended Fund Facility (EFF) program, under which Pakistan received a loan of about USD 7 billion, required the country to increase energy tariffs and decrease energy subsidies substantially[9]. The enforcement of tariffs and reduction of subsidies increased energy prices by almost 18%, making it difficult for poorer households to afford electricity[10].

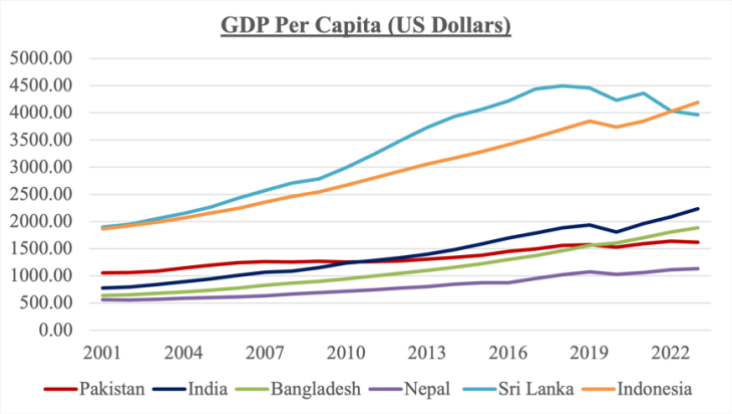


Figure 1: Comparative GDP Per Capita with data from World Bank

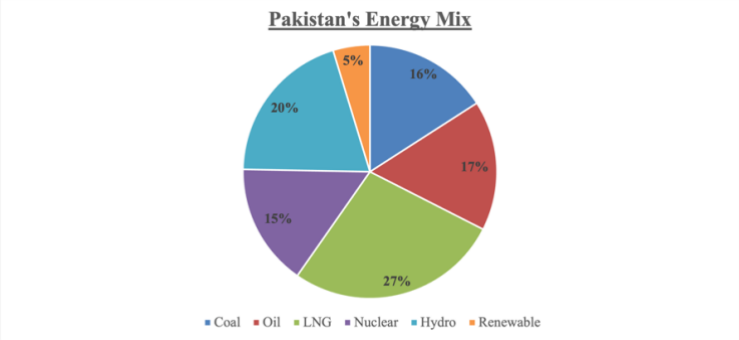


Figure 2: Pakistan's Energy Mix with data from International Energy Agency

Some of Pakistan's economic woes can be traced back to its distressed energy sector. Pakistan's electricity access rate, at 95%, remains the lowest among its South Asian peers, indicating

[9] (International Monetary Fund, Pakistan: IMF Reaches Staff-Level Agreement on Economic Policies with Pakistan for 37-month Extended Fund Facility 2024)
[10] (Bhutto 2024)

systemic inefficiencies in the sector[11]. The low rate of accessibility can be attributed to weak infrastructure, low production, and high prices. Pakistan's grid system primarily built in the 1960s consistently records average transmission and distribution losses exceeding 17%, indicating that a substantial portion of the generated power fails to reach end consumers[12]. Additionally, structural inefficiencies in the ailing grid system frequently leads to widespread blackouts akin to the one of January 2023[13]. The low production of energy and high costs are a result of years of underinvestment in the sector and an overdependence on imported fossil fuel. Almost 60% of Pakistan's energy comes from fossil fuel that is predominantly imported[14]. As a result, when fuel prices increase due to external shocks, such as war, or current account imbalances, the cost of production also increases, making the sector extremely volatile. In fact, the balance of payment crisis of 2023, can be partially attributed to the onset of the Russia-Ukraine war that led to a global surge in fuel prices.

Low energy production in Pakistan leads to reduced industrial productivity that ultimately stunts economic growth[15]. As a result of low energy production leading to low GDP growth, Pakistan often finds itself reliant on foreign aid and loans, from multilateral as well as bilateral creditors, to finance its development and infrastructural projects. According to the International Debt Report published by the World Bank, in 2024, China, Saudi Arabia, World Bank-IDA, Asian Development Bank, and the IMF were Pakistan's top five creditors[16]. Furthermore, in 2023, Pakistan's external debt stocks and debt service as percentage of its exports stood at 352% and 43% respectively, the highest in the region[17]. This statistic indicates that Pakistan

[11] (World Bank Group, DataBank: World Development Indicators 2025)
[12] Ibid.
[13] (Masood and Rahman, Power Outage Sweeps Pakistan, Dropping Millions Into Darkness 2023)
[14] (International Energy Agency, International Energy Agency: Pakistan 2025)
[15] (Razzaqi, Bilquees and Sherbaz 2011)
[16] (World Bank Group, International Debt Report 2024)
[17] Ibid.

not only has a lofty debt burden, but also a weak export sector, making it more difficult for the country to service its debt and rendering it more susceptible BoP crises. To avoid a default, Pakistan is usually forced to issue new loans to pay off its existing loans, ultimately locking the country in a vicious cycle of debt.

A long-term solution for Pakistan, therefore, lies in targeted investment in the energy sector that would stimulate economic growth and alleviate the country's debt burden. However, Pakistan faces significant challenges in the way of it. Since 2019, the implementation of tighter monetary policies globally, particularly in response to the economic disruptions caused by the COVID-19 pandemic, has led to a sustained increase in interest charges on Pakistan's debt obligations[18]. In 2023, 60% of the government's revenue went towards interest payments on public debt[19]. Furthermore, as IMF conditionalities and inflation lead to a weaker currency more money is required to finance principal repayments. In tandem, this restricts the government's ability to allocate sufficient funds for investments in the energy sector. Additionally, weak institutions, endemic corruption, and recurrent military intervention means that the Pakistani government often lacks political will and legitimacy to enforce policy reforms leading to inefficiencies and mismanagement in the energy sector.

Pakistan's geopolitical environment further constrains sustainable investment in the energy sector, particularly from private sector actors. Bordered by Afghanistan and Iran to the west, India to the east, and China to the north, Pakistan occupies a geopolitically sensitive position and is particularly vulnerable to spillover effects from regional instability. The Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline, projected to supply 33 billion cubic meters of

[18] Ibid.
[19] (Hussain 2024)

natural gas annually, has remained stalled for over three decades, primarily due to protracted conflict and insecurity in Afghanistan[20]. The project's future remains uncertain, further complicated by strained India-Pakistan relations and India's strategic concern over the pipeline's proposed route through Pakistani territory[21]. On the southwestern frontier, Pakistan's cross-border natural gas pipeline project with Iran has been delayed by more than a decade due to fears of U.S. sanctions, that can jeopardize vital foreign aid and further strain the country's already fragile economy[22].

More recently, following the terrorist attacks near Pahalgam in Indian-administered Kashmir, India suspended the Indus Water Treaty as a punitive measure, raising serious energy sector concerns in Pakistan[23]. Given that, about 20% of Pakistan's total electricity is generated from Hydroelectric plants, Pakistan is dependent on its rivers for energy security[24]. Furthermore, all of Pakistan's 21 hydroelectric plants are located in the Indus River Basin[25]. The Indus Water Treaty, that was negotiated and signed by India and Pakistan in 1960, ensures the free flow and "equitable use of water flowing in the Indus River system", Pakistan's primary river system[26]. The suspension of the treaty by India has the potential to reduce the current of rivers flowing into Pakistan from India, threatening the energy generation capacity of Pakistan's hydroelectric plants. In conjunction, uncertainty generated by regional tension usually dissuades foreign as well as local companies from investing in the energy sector leading to limited growth. Pakistan's geopolitically sensitive location underscores the importance of sustained investment in its energy sector both by domestic and foreign entities. Persistent socio-political instability,

[20] (Fazl-e-Haider, Turkmenistan Resumes Work on TAPI Pipeline Despite Geopolitical Hurdles 2024)
[21] (Fazl-e-Haider, TAPI Pipeline to Remain Failure Without India and Pakistan's Participation 2025)
[22] (Kugelman, Iran Puts Pakistan on Notice 2024)
[23] (Das, K.B. and ur-Rehman 2025)
[24] (International Energy Agency, International Energy Agency: Pakistan 2025)
[25] (Michel 2025)
[26] (Das, K.B. and ur-Rehman 2025)

fueled by slow economic growth and an ongoing energy crisis, poses the risk of spillover effects in the region, potentially exacerbating instability across South Asia. With an increase in terrorist activities driven by Taliban resurgence in Afghanistan, it is especially crucial now for Pakistan to invest in the energy sector to ensure its energy security.

This article examines the challenges hindering energy sector investment in Pakistan, with a particular focus on the role of the International Monetary Fund. The Fund has played a crucial role in preventing sovereign debt crises in Pakistan on multiple occasions. However, the cost and conditionalities have had a long-lasting impact on the country's economy and energy sector. Using publicly accessible data from the World Bank, this study uses a semi-log multivariable ordinary least squares regression to investigate the impacts of IMF conditionalities, interest payments, and debt-servicing on public as well as private sector investments in the energy sector in Pakistan between 2001 and 2023. This article argues that due to the macroeconomic stabilization measures imposed by the IMF on Pakistan and the increasing cost of debt servicing, energy sector investments in the country has been adversely impacted.

This paper is organized into eight sections. The first section discusses the history and causes of Pakistan's energy crisis and summarizes its impacts on the economy. The second section provides an overview of the establishment of the IMF, its relationship with developing countries, and outlines its lending policies and programs. The third section investigates the Fund's relationship with Pakistan and provides a literature review of the impacts of IMF conditionalities on Pakistan's socio-economic policies. The fourth section discusses the specific IMF programs that Pakistan has been enrolled in and the policy reforms recommended by the Fund. This section also compares economic indicators during IMF program years to

non-program years. The fifth section discusses the study design, model, and data collection. The sixth and seventh section discusses the results of the study and its implications respectively. The final section provides a summary of the paper and discusses possible solutions for the country going forward.

Chapter I: Pakistan's Power Crisis

In the early hours of January 24, 2023, millions of people in Pakistan lost electricity as much of the country was swept by a major power outage[27]. According to Khurram Dastgir, Pakistan's energy minister, the outage, that lasted for almost 24hrs, was caused by a grid failure due to a surge in voltage[28]. Power outages of such scale have become increasingly common in the country. In fact, this was Pakistan's second major power failure in just three months[29]. Similar large scale power outages have affected the country in 2021, 2019, 2018, and as far back as 2010[30] [31]. Power outages due to frequent grid failures have been a constant issue in Pakistan that inflicts recurring economic hardship on businesses and industries. Due to the power outage of 2023, it is estimated that the textile sector, the country's largest exporter, incurred a loss of about USD 70 million[32]. Additionally, due to the power outage critical services such as hospitals, schools, and banks were either forced to shut down or operate at limited capacity, hampering the lives of millions of Pakistanis[33].

The frequent power outages in Pakistan can be attributed to several factors. One of them being an ageing and rickety grid system. The electricity grid that was primarily built in the 1960s has been impacted by a chronic lack of maintenance and investment[34]. In 2010, about 17% of the country's total energy output was lost during transmission and distribution (T&D), contributing to the 4,480 MW supply deficit, due to a poor grid infrastructure [35] [36]. The numbers have remained consistent throughout the years with the most recent data revealing a 16% T&D loss

[27] (Masood and Rahman, Power Outage Sweeps Pakistan, Dropping Millions Into Darkness 2023)
[28] (Tens of millions without power in Pakistan as national grid fails 2023)
[29] (Nationwide power blackout plunges Pakistan into darkness 2021)
[30] (Masood, Much of Pakistan Loses Power in Massive Blackout 2021)
[31] (Tavernise 2010)
[32] (Berman 2023)
[33] (Masood and Rahman, Power Outage Sweeps Pakistan, Dropping Millions Into Darkness 2023)
[34] (Berman 2023)
[35] (World Bank Group, DataBank: World Development Indicators 2025)
[36] (Ebinger and Hasnie 2010)

during the 2022-23 fiscal year[37]. Consistent T&D losses and supply shortfalls is a contributing factor to Pakistan's low per capita energy consumption relative to its neighbors. In 2022, the country's per capita energy consumption stood at a mere 605 kWh, whereas neighboring India's and Sri Lanka's stood at 1074 kWh and 684 kWh respectively [38]. Between 2001 and 2022, while per capita energy consumption in Bangladesh and India respectively increased by 450% and 179%, Pakistan's appreciated by a meager 80% [39].

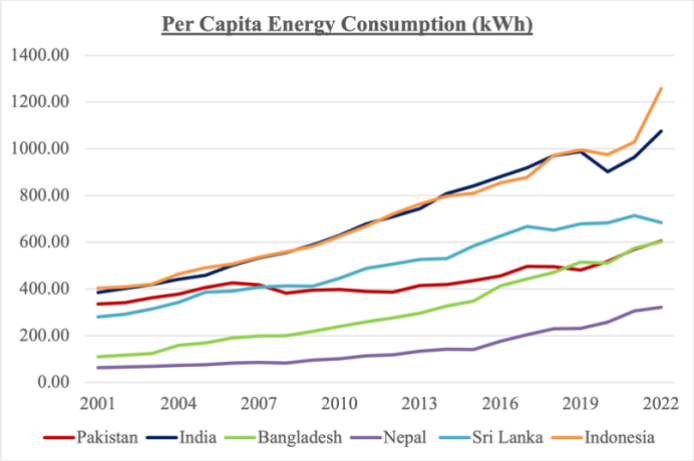


Figure 3: Comparative Per Capita Energy Consumption with data from World Bank

Low per capita energy consumption is a worrying sign for Pakistan as it is indicative of slow economic growth. A study of developing country economies conducted by Asafu-Adjaye found that there is a statistically significant unidirectional causal relationship between energy consumption and income [40]. This means that when energy consumption increases, gross domestic product (GDP) and per capita income also increases. Conversely, when energy consumption decreases GDP and income also decreases. Like its per capita consumption, Pakistan's per capita GDP has also lagged behind that of its neighbors. According to World

[37] (World Bank Group, DataBank: World Development Indicators 2025)
[38] (International Energy Agency, International Energy Agency: Pakistan 2025)
[39] Author's own calculations based on data from the International Energy Agency.
[40] (Asafu-Adjaye 2000)

Bank data in 2022 Bangladesh and India's per capita GDP stood at USD 2,716 and USD 2,352 respectively, while Pakistan's trailed behind at USD 1,538[41]. Similarly, Pakistan's average annual GDP growth between 2001 and 2024 was 4% while India and Bangladesh exceeded 6% average annual growth [42].

Compared to its peers Pakistan's per capita electricity production is also low. In 2022, as India generated per capita electricity of 1,311 kWh, Pakistan generated 715 kWh [43] [44]. Interestingly, however, Pakistan has enough installed capacity to increase its per capita production to approximately 990.65 kWh [45]. The reason for low production despite having enough installed capacity is the country's overdependence on imported fuel. About 13% of Pakistan's total installed capacity consists of furnace oil-based thermal power plants that meet roughly 20% of the country's energy demands [46]. Such oil based thermal power plants have an efficiency rate of only 30%, meaning that a 70% of energy is lost as heat before it is utilized [47]. Furthermore, since these plants rely primarily on imported oil for electricity generation their operational cost is very high [48]. Often, these plants cannot operate at full capacity because they cannot afford imported oil [49]. In fiscal year 2022, for instance furnace oil-based power plants in Pakistan operated only at 22% capacity on average, meaning that majority of the time these plants were idle and not generating any revenue [50]. Additionally, the entire thermal power plant fleet of Pakistan is at least thirteen years old leading to further operational inefficiencies [51]. In

[41] (World Bank Group, DataBank: World Development Indicators 2025)
[42] Ibid.
[43] (International Energy Agency, International Energy Agency: India 2025)
[44] (International Energy Agency, International Energy Agency: Pakistan 2025)
[45] Author's own calculations based on data from *Pakistan Economic Survey 2022-23, Chapter 14.* (Government of Pakistan: Finance Division 2023)
[46] (Isaad 2024)
[47] (Feng 2023)
[48] (Ebinger and Hasnie 2010)
[49] (Isaad 2024)
[50] (Government of Pakistan: Ministry of Planning 2022)
[51] (Isaad 2024)

conjunction these factors are contributing to low actual energy production in Pakistan relative to predicted energy production if its total installed capacity were utilized optimally.

Inefficient plants, old infrastructure, and expensive fuel costs are also contributing to Pakistan's circular debt crisis. The circular debt in Pakistan's power sector "refers to accumulated unpaid liabilities of power distribution companies (DISCOs) to Central Power Purchasing Authority-Guarantee (CPPA-G), resulting in delayed payments…to the power generation companies (GENCOs)" and Independent Power Producers (IPPs) [52]. Due to T&D loses, power theft, and defaulting consumers due to high electricity cost, DISCOs are often unable to recover the full cost of the electricity that they purchase from the CPPA-G. In the fiscal year 2022, the cost recovery rate for DISCOs was only 86% contributing to a national revenue shortfall of about USD 263 billion or about USD 933 million [53]. Subsequently, the CPPA-G fails to pay the state owned GENCOS and privately owned IPPS who then fail to fuel suppliers [54]. As a result, fuel suppliers such as the Pakistan State Oil fail to make payments, denominated in U.S. dollars, to the international fuel suppliers [55]. Furthermore, due to take-or-pay contracts that the Pakistani government has with the IPPs, they must make capacity payments to the IPPs year-round even when the plants are not operating [56]. All these factors contribute to the energy sector's circular debt which as of fiscal year 2020 stood at PKR 2.3 trillion or about USD 8 billion[57]. The circular debt prohibits different actors within the power sector to invest in infrastructure, increase production, and improve efficiency of the power plants, resulting in a prolonged energy crisis that can be traced back to the 1990s [58].

[52] (Akram 2023)
[53] Ibid.
[54] Ibid.
[55] Ibid.
[56] (Isaad 2024)
[57] (Asian Development Bank 2021)
[58] (Kugelman, Pakistan's Energy Crisis: From Conundrum to Catastrophe? 2013)

To address the circular debt the government often ends up borrowing from domestic banks and multilateral institutions. In March of 2025, the Pakistani government negotiated a USD 4 billion loan with commercial banks to tackle its circular debt after an approval by the International Monetary Fund (IMF) [59]. Pakistan is currently enrolled in the IMF's Extended Fund Facility (EFF) program that has approved a USD 7 billion bailout for the country under the condition that it addresses its energy sector shortfalls [60]. Under the IMF's guidance the country has instituted a PKR 3 per kWh debt servicing surcharge on electricity bills to help finance its circular debt [61].

Borrowing to resolve the circular debt crisis is only a temporary fix. Addressing Pakistan's energy crisis requires upgrading the power grid to reduce transmission and distribution losses through targeted investment. Additionally, investments need to be made to replace low efficiency furnace-oil based power plants with high efficiency hydro or coal-based power plants. Furthermore, the government needs to investment in infrastructure and enforcement to prevent power theft and increase its rate of cost recovery. However, conservative estimates indicate that Pakistan would need to invest approximately, USD 8.7 billion only to upgrade its power grid in the next decade [62]. Given the country's mounting debt and escalating debt servicing obligations, investing in the energy sector has become increasingly challenging. The high cost of IMF loans and the economic consequences of conditionalities have also been an impediment towards energy sector investments. The following section discusses the history of

[59] (Shahid 2025)
[60] (International Monetary Fund, Pakistan: IMF Reaches Staff-Level Agreement on Economic Policies with Pakistan for 37-month Extended Fund Facility 2024)
[61] (IMF links Pakistan's circular debt plan approval to surcharge 2025)
[62] (Kiani 2024)



the IMF, its lending policies, and reviews the impacts of its lending practices on developing countries such as, Pakistan.

Chapter II: The International Monetary Fund: History and Developing Country Relations

Established in 1944 as the "Lender of Last Resort", the International Monetary Fund has periodically come under scrutiny for its handling of debt and balance of payment crises in developing countries[63]. Immediately following its founding, however, the Fund's activities were largely confined within Western Europe and agreements with developing countries were few and limited to educational and advisory missions[64]. Early lending programs were mostly short-term, lasting no longer than 12 months. Loans were disbursed under the classic Stand-By Arrangement (SBA) on the condition that borrowing countries take steps to address their current account deficits[65]. The United Kingdom, Belgium, and Finland were some of the Fund's foremost clients, borrowing under SBA to tackle balance of payment crises and inflation coming out of World War I[66].

The Fund's engagement with developing countries increased in the 1960s when rapid decolonization gave birth to newly independent countries that approached it for assistance in reconstruction efforts[67] [68]. At the same time, to establish influence over newly formed countries officials in the U.S. and other advanced industrialized countries began supporting concessional loans through the World Bank[69]. As a result, between 1956 and 1970 multilateral assistance to developing countries increased four folds whereas bilateral assistance doubled[70]. Awash with foreign direct investment and accompanied by low fuel prices, developing countries

[63] (Reinhart and Trebesch 2015)
[64] (Petras and Brill 1986)
[65] (Reinhart and Trebesch 2015)
[66] Ibid.
[67] Ibid.
[68] (Oatley 2018)
[69] Ibid.
[70] Ibid.

experienced a period of rapid economic growth[71]. But this growth was abrupted by the onset of the OPEC oil embargo of the1970s.

The oil shock hit ISI (Import Substitution Industrialisation) led Latin American countries, that overwhelmingly depended on imported fuel for domestic industrialization, the most[72]. Rapidly growing oil costs subsequently increased commodity prices resulting in skyrocketing inflation. Consequently, their currencies became weaker and essential imports became more expensive leading to a balance of payment crisis. During this period the average debt service ratio in Latin American countries increased by more than 10 percentage points [73]. In Argentina alone in 1983, the debt service ratio stood at 70% of total export earnings[74]. As countries started defaulting, they sought help from creditor countries who agreed to restructure loans and offer new ones in exchange for economic reforms on part of the debtor countries[75]. Resultantly, the crisis came to be managed under a framework that complemented the financial and economic system championed by creditor countries and benefitted them[76]. Loans were financed through the IMF under macroeconomic stabilisation programs.

The main goal of these programs was to eliminate the current account deficits by reducing expenditure and increasing government revenue[77]. Policy reforms prescribed to countries included eliminating subsidies that artificially lowered prices, broadening the tax base and improving tax collection, privatising state owned enterprises, instituting a floating exchange rate, liberalising the banking system, and, raising interest rates to control the money supply[78].

[71] Ibid.
[72] Ibid.
[73] (Curry 1997)
[74] (World Bank Group, World Bank, Data: Argentina 2025)
[75] (Oatley 2018)
[76] Ibid.
[77] (Segal 2022)
[78] (Bullard, Bello and Mallhotra 1998)

Typically, these policies would have a downward pressure on domestic consumption and investment which would lower the demand for goods and services. This would in turn reduce the demand for imports leading to a decrease in current account deficit. Furthermore, floating exchange rates would devalue the currency making exports cheaper and increasing valuable foreign exchange reserve. If implemented properly these measures would in the long run reduce deficit and avert a balance of payment crisis[79]. But the social cost of these measures was almost always painful.

The reduction in demand would lead to high unemployment and lowering of wages. High interest rates would increase borrowing cost for businesses, lowering investments and ultimately lead to low growth and economic contraction. Additionally, eliminating subsidies on energy and fuel would increase cost for households and lower their purchasing power, further shrinking the economy. Indeed, in the aftermath of the Latin American debt crisis and the Fund's subsequent intervention its conditionalities were criticised by both economists and policy makers[80]. Writing in 1986 Petras and Brill points to how the implementation of the IMF program in Argentina and Chile slowed the industrialisation process[81]. Between 1974 and 1981 industrial sector employment in Argentina decreased by more than 10% and output decreased by 17% as a direct result of the policies implemented during this period[82]. In the same period annual bankruptcies rose from 356 per year in 1975 to 3,521 in 1982[83]. At the same time the unit cost of labour in Argentina fell by 47% triggering a lowering of real wages by about 20%[84] [85]. The stringent measures had political impacts as well. In Chile for example, fall-out from the

[79] (Buira 2003)
[80] Ibid.
[81] (Petras and Brill 1986)
[82] Ibid.
[83] Ibid.
[84] Ibid.
[85] (Márquez and Morley 1997)

IMF program led to an increase in populist backlash and subsequent rise in state repression such as torture, killing, and kidnapping[86].

Evaluating the Fund's response to the Latin American crisis, Jeffrey Sachs, a former IMF employee and the director of the Harvard Institute for International Development wrote in the winter of 1990 that the IMF had failed to achieve its one goal of correcting balance of payment distortion without being "destructive of national and international prosperity"[87]. Sachs continued that despite "constant guidance and support of the IMF", highly indebted regions such as Latin America "suffered profound setbacks to "national prosperity""[88]. Sachs went on to suggest that going forward the Fund should focus on debt reduction instead of debt servicing and "formulate more realistic programs for the heavily indebted countries"[89]. Sachs' advice must have rung hollow for the Fund because in the following decade when Asia was confronted with a debt crisis the IMF reverted to its prescription of macroeconomic stabilisation[90].

Another recurring criticism that the IMF encounters is regarding its high borrowing cost that often increases the pressure of debt servicing in debtor countries. A recent report by the Centre for Economic and Policy Research found that in 2024, 92 LMICs (Lower-Middle Income Countries) spent more on external debt servicing than on SDG (Sustainable Development Goal) investments[91]. Pakistan was one of them. The country's debt service to exports ratio increased from 15% in 2012 to 43% in 2023[92]. At the same time annual inflation increased from 7% to 30% and rate of annual growth decreased. Investments, especially in the energy sector has been

[86] (Petras and Brill 1986)
[87] (Sachs 1990)
[88] Ibid.
[89] Ibid.
[90] (Bullard, Bello and Mallhotra 1998)
[91] (Merling, Vasic-Lalovic and Cuellar 2024)
[92] (World Bank Group, World Bank Group, DataBank: International Debt Statistics 2025)

plummeting. The high cost of IMF loans stems from interest rate and disbursement policies. IMF member countries can request for loans from the Fund's General Resources Account. Once a country formalises a request through a letter of intent and negotiates the terms and conditions, the IMF disburses the loan under one of its many programs[93]. The loans are disbursed in SDR (Special-Drawing Rights) which is an accounting unit that the IMF uses for transactions with its members[94]. The value of the SDR and interest rate (SDRi) on the loans depend on a basket of five currencies- the US dollar, euro, Chinese yuan, Japanese yen, and the starling pound[95]. The loans are not disbursed at a fixed interest rate, meaning that if monetary policy in one of the basket currency countries is tight and interest rates are high then the interest rates on the loans will also increase. The second component that contributes to the cost of loans is the lending margin which is a fixed 1% interest rate charged on loans that covers the operational cost of the Fund[96].

The third component that may impact borrowing costs are surcharges. These surcharges are designed to prevent countries from overborrowing or overextending their loans. Every member country of the IMF is assigned a specific quota that determines how much a country can borrow[97]. The size of the quota largely depends on the member country's economy's size relative to the world economy. For example, Pakistan's quota is SDR 2031 million while India's is SDR 13,114 million[98] [99]. When a country overborrows by 187.5% of its quota, a 2% interest rate is added to its outstanding credit[100]. If a country overextends its loan repayment period by a certain number of months (36 months for Stand-by Arrangement program and 51

[93] (Petras and Brill 1986)
[94] (Krahnke and Tordoir 2023)
[95] Ibid.
[96] Ibid.
[97] Ibid.
[98] (International Monetary Fund, International Monetary Fund: Pakistan 2025)
[99] (International Monetary Fund, International Monetary Fund: India 2025)
[100] (Krahnke and Tordoir 2023)

months for Extended Fund Facility Program) then another 1% interest is charged on outstanding payments.[101] Pakistan is currently borrowing at 262% of its quota and therefore is subjected to 2% surcharges [102]. Recently this policy has come under scrutiny because it tends to disproportionately impact developing countries that are often in debt distress and most in need of liquid currency.

The impacts of conditionality and macroeconomic stabilisation programs have been studied extensively especially in countries of Latin America, South-East Asia, Middle East, and Africa. However, sector specific impacts of IMF loans are lacking, especially for Pakistan. This article strives to address this gap in research by analysing the impacts of IMF loans disbursed under programs such as the Stand-by Agreement (SBA) and the Extended Fund Facility (EFF) on energy sector investments. The next section of the article summarises the history of IMF lending to Pakistan and discussed the main conditionalities enforced on the country.

[101] Ibid.
[102] (International Monetary Fund, Pakistan: IMF Reaches Staff-Level Agreement on Economic Policies with Pakistan for 37-month Extended Fund Facility 2024)

Table 1: IMF-Pakistan agreements since 1980

	IMF Program	Duration	Total Amount Sanctioned (Millions SDR)	Total Amount Drawn (Millions SDR)	Status
1	Extended Fund Facility (EFF)	1980-81	1268.00	349.00	Declared off-track
2	Extended Fund Facility (EFF)	1981-82	919.00	730.00	Partially Completed
3	Standby Arrangement (SBA)	1988-90	273.15	194.48	Completed
4	Structural Adjustment Facility Commitment (SAF)	1988-91	382.41	382.41	Completed
5	Standby Arrangement (SBA)	1993-94	265.40	88.00	Suspended
6	Extended Fund Facility (EFF)	1994-95	379.10	123.20	Suspended
7	Extended Credit Facility	1994-95	606.60	172.20	Suspended
8	Standby Arrangement (SBA)	1995-97	562.59	294.69	Suspended
9	Extended Credit Facility (ECF)	1997-2000	682.38	265.37	Suspended
10	Extended Fund Facility (EFF)	1997-2000	454.92	113.740	Suspended
11	Standby Arrangement (SBA)	2000-01	465.00	465.00	Completed
12	Extended Credit Facility (ECF)	2001-04	1033.70	861.42	Completed
13	Standby Arrangement (SBA)	2008-11	7235.90	4936.03	Partially Completed (terminated in 2010)
14	Extended Fund Facility (EFF)	2013-16	4393.00	4393.00	Completed
15	Extended Fund Facility (EFF)	2019-22	4268.00	1044.00	Completed (after 1 year delay)
16	Extended Fund Facility (EFF)	2024-present	5320.00	-	Ongoing
17	Resilience and Sustainability Facility (RSF)	2025-present	1000.00	-	Ongoing

Source: International Monetary Fund

With an outstanding debt of USD 8.3 billion, Pakistan has become the fifth largest debtor to the IMF after Argentina, Ukraine, Egypt, and Ecuador[103]. Since joining the Fund in 1950, Pakistan has signed a total of twenty-five agreements with the IMF, one of the highest numbers among member countries[104]. By contrast, Argentina, the largest debtor to the IMF has signed twenty-two agreements, while neighboring India and Bangladesh have only signed seven and fourteen agreements with the IMF, respectively[105] [106] [107]. In September 2024, the IMF approved its most recent loan of USD 7 billion to Pakistan under the thirty-seven-month Extended Fund Facility (EFF) program[108]. Following the agreement, SDR equivalent to USD 1 billion was disbursed immediately with the remaining slated for disbursement in tranches upon regular periodic review[109]. The primary conditions for the latest agreement include broadening the tax base and improving tax collection, restructuring and privatizing state-owned enterprises, reducing energy sector cost and eliminating government intervention in price-setting in the sector, removing state-created barriers to ensure higher competition, and creating fiscal space for spending to strengthen social protections[110].

Following the EFF program, on March of 2025, the IMF and Pakistan came to a staff level agreement on a twenty-eight-month long Resilience and Sustainability Facility (RSF) program that sanctioned the disbursement of an additional USD 1 billion[111]. This program aims to address the climate related vulnerabilities that Pakistan's economy is subjected to and build mechanisms to increase climate resilience. The disbursement of funds under this program is

[103] (Hunt and Go 2022)
[104] (International Monetary Fund, International Monetary Fund: Pakistan 2025)
[105] (International Monetary Fund, International Monetary Fund: Argentina 2025)
[106] (International Monetary Fund, International Monetary Fund: India 2025)
[107] (International Monetary Fund, International Monetary Fund: Bangladesh 2025)
[108] (International Monetary Fund, Pakistan: IMF Reaches Staff-Level Agreement on Economic Policies with Pakistan for 37-month Extended Fund Facility 2024)
[109] (International Monetary Fund 2025)
[110] Ibid.
[111] Ibid.

predicated upon the government's successful implementation of policies to consolidate fiscal spending and reduce public debt, creating opportunities for private investments, maintaining tight monetary policy, and implementing structural reforms such as amending tax regimes[112].

The strict conditionalities that are a prerequisite of IMF loans have historically had mixed impacts on Pakistan's economy. While most of these programs are able to reign in fiscal deficit, avert balance of payment crises, and increase foreign direct investment (FDI), they often exacerbate socio-economic inequalities and impact the most vulnerable communities the hardest. A recent study conducted by Naeem et.al on the impacts of IMF loans on Pakistan's economy between 2001-2019 found that enrolment in IMF programs significantly increased foreign direct investment in the country and helped decrease the fiscal deficit considerably[113]. Notably in the fiscal year 2003 when Pakistan was under the IMF's EFF program, the deficit declined to 2.4% of GDP from about 4% the previous year[114] [115]. However, as Naeem et.al notes high unemployment and increased commodity prices were a byproduct of the IMF programs and had a negative impact on living standards[116]. After the Pakistani government implemented policies that privatized SOEs and devalued the Pakistani Rupee under the 2001-04 Extended Credit Facility program the overall unemployment rate in the country increased by 0.4%[117]. The unemployment rate was exhibiting a declining trend till the SBA and EFF programs of 2008 and 2013 respectively. In 2012 before the beginning of the EFF program Pakistan's unemployment rate stood at 5.1%[118]. By the second year of the EFF program in 2015, Pakistan experienced an unemployment rate of 8.3%[119]. Furthermore, under the EFF

[112] Ibid.
[113] (Muhammad Naeem 2023)
[114] Ibid.
[115] (International Monetary Fund, IMF Concludes 2002 Article IV Consultation with Pakistan 2002)
[116] (Muhammad Naeem 2023)
[117] Ibid.
[118] Ibid.
[119] Ibid.

program of 2019-22, when the government moved to a market determined exchange rate policy, the rupee devalued by almost 64% against the dollar leading to a significant increase in commodity prices[120] [121].

IMF conditionalities also tend to have a negative impact on Pakistan's GDP growth. Ramzan et.al notes that on average Pakistan experienced a decline in GDP growth rate in the years that it was under a structural adjustment program by the IMF[122]. Their assertion is supported by World Bank data which indicates that Pakistan's annual GDP growth rate either remained stagnant or declined under IMF programs[123]. Ramzan et.al also found that the overall poverty rate in Pakistan tended to increase under IMF programs[124]. A study on the impacts of structural adjustment programs on social welfare in Pakistan between 1988-99 found that because of policy interventions required by IMF programs, real wages for both skilled and unskilled labor declined significantly[125]. A study of the social cost of IMF conditionalities by Arafat et.al found that elimination of food and electricity subsidies increased poverty rates between 2018-21[126]. They also found that health care spending between 2015 and 2020 decreased due to IMF austerity measures, impacting lower income communities the most[127]. A 2010 study of economic growth in Pakistan by Khanna also showed that under the 2008 SBA program gross fixed capital formation (GFCF) in the country decreased by 0.6%, with 3.5% decline in the private sector and 5% decline in the manufacturing sector respectively[128]. Khanna also notes that in the same period FDI decreased by 32%, which contrasts with the results presented by

[120] (World Bank Group, World Bank Group, DataBank: International Debt Statistics 2025)
[121] (Muhammad Naeem 2023)
[122] (Ramzan, Haque and Khan 2023)
[123] (World Bank Group, DataBank: World Development Indicators 2025)
[124] (Ramzan, Haque and Khan 2023)
[125] (Khan and Aftab 1995)
[126] (Arafat, Turi and Amir 2025)
[127] Ibid.
[128] (Khanna 2010)



Naeem et.al [129]. The report also concluded that continued reduction in government spending on welfare programs, due to IMF sanctioned structural reforms, exacerbated the poverty gap and reduced the formation of human capital between at the turn of the century [130].

Existing literature, however, fails to investigate the impacts of IMF loans on Pakistan's energy sector. The purpose of this paper is to inquire how continued assistance from the IMF and high borrowing costs have shaped Pakistan's energy sector with a focus on investment in infrastructure. The following sections of the paper provide descriptive statistics of Pakistan's economy under IMF programs, discuss the data and methodology for the research, evaluate the results of the study, and discuss possible policies going forward.

[129] Ibid.
[130] Ibid.

Chapter IV: Program description and descriptive statistics

For the purpose of this study, I analyze the impacts of IMF loans on Pakistan's energy sector between the years 2001 and 2023 using data from the World Bank. The aforementioned period was selected because relative to previous years, Pakistan had successfully completed more of the IMF program's it was enrolled in between 2001 and 2023. As evident from table 2, Pakistan had agreed to ten IMF programs between 1980 and 2000 among which it only successfully completed three. The remaining were suspended or declared off track by the IMF due to Pakistan's continued inability to implement policy reforms agreed upon by the authorities under specific programs. Between 2001 and 2023, Pakistan agreed to four IMF programs, all of which were partially or entirely completed. Given that, under IMF programs, loans are disbursed in tranches upon periodic reviews, Pakistan was able to successfully complete each program because it adhered to the terms and conditions set by Fund. This means that during this period, more policies related to macroeconomic stabilization were successfully implemented which subsequently impacted the economy and more specifically the energy sector.

In May of 1998 after Pakistan tested nuclear weapons under Prime Minister Nawaz Sharif, the US and G-7 countries imposed sanctions on Pakistan that led to the immediate suspension of foreign aid, concessional loans, and bilateral treaties[131]. This had an adverse impact on trade and FDI leading to an economic slowdown. Following the sanctions between 1998 and 2001, the country's GDP shrank by 2% and income to debt-servicing ratio soared[132] [133]. In September of 2000 the official reserve reached a low of USD 0.6 billion edging the country towards a

[131] (Chawla 2002)
[132] Ibid.
[133] (Carnegie Endowment for International Peace 2001)

sovereign default[134]. However, following the attacks of 9/11, US interest in Pakistan as an ally for its war against terrorism in Afghanistan was renewed, and sanctions were waived[135]. The US also greenlighted IMF intervention in Pakistan which expedited the Poverty Reduction and Growth Facility (PRGF) agreement under the ECF program of 2001[136]. The PRGF agreement sanctioned the disbursement of SDR 1033.70 million over 12 quarterly installments following regular performance reviews[137]. IMF recommendations under the PRGF agreement comprised of broadening the tax base, eliminating GST exceptions on pharmaceuticals, eliminating energy subsidies, introducing income tax reforms, reducing tariffs, reforming the pension system, restructuring public expenditure, ensuring fiscal transparency, and unifying the foreign exchange market[138]. The PRGF program did not focus substantially on reforming the energy sector except for recommending privatizing public enterprises such as Karachi Electricity Supply Corporation (KESC)[139].

According to World Bank Debt Statistics between 2001 and 2004 Pakistan invested USD 29.8 million in the energy sector. The entire amount was invested in 2004 with no significant investments before that. Percentage of population with access to electricity increased in this period from 73.9% to 77%. Electricity production grew by 18% in this period and average per capita electricity consumption was approximately 354 kWh. The annual GDP growth rate increased from 3% in 2001 to 7% in 2004 and annual inflation also grew at a similar rate. The average per capita GDP during this period was USD 1088 and between 2001 and 2004 GDP per capita grew by 8%. In the same period external debt to gross national income (GNI) ratio decreased from 34% to 28%, exports grew from 10% to 11% as a percentage of GDP, and debt

[134] (IMF Middle Eastern Department , et al. 2001)
[135] (Chawla 2002)
[136] (Momani 2004)
[137] (IMF Middle Eastern Department , et al. 2001)
[138] Ibid.
[139] Ibid.

service to exports ratio reduced from 28% to 26%. Between 2001 and 2004, Pakistan approximately paid SDR 105 million in interest to the IMF.

Pakistan was not enrolled in any IMF programs between 2005 and 2007. Investments in the energy sector saw an increase in this period with an average investment of USD 952.3 million. The percentage of population with access to electricity increased to 80% by the end of 2007. The average electricity production during this period was 95,834 GWh and grew by about 11% and average per capita consumption was 416 kWh. The average per capita income was USD 1236 between 2005 and 2007 and grew by 10% from the end of 2004. Annual GDP growth rate decreased from 7% in 2005 to 4% in 2007 and inflation decreased from 9% to 7% in this period. External debt as a percentage of GNI decreased from 24% to 23%, percentage of exports remained constant at approximately 12%, and debt service to exports ratio decreased from 26% in 2004 to 12% in 2005 and at the end of 2007 stood at 11%. In this period Pakistan approximately paid SDR 22 million in interests to the IMF.

Following the subprime mortgage crisis of 2008, Pakistan's economy started to worsen rapidly[140]. The terrorist attack at the beginning of the year that killed the former prime minister Benazir Bhutto also had a dampening effect on the economy[141]. Following the crisis, inflation increased to 25% from 7% the previous year, the stock market lost 60% of its value, the rupee depreciated by almost 35% against the dollar, current account deficit increased to almost 9% of GDP, and foreign exchange reserves dropped sharply[142]. Following the crisis, Pakistan approached the IMF for a 23-month Stand-by Arrangement (SBA) under the Emergency Funding Mechanism (EFM). The main terms and conditions of the arrangement included

[140] (Haque 2010)
[141] Ibid.
[142] Ibid.

tightening the monetary policy, restructuring social assistance programs, introducing a new Value Added Tax (VAT), and pursuing a flexible exchange rate policy. The 2008 SBA agreement was discontinued ahead of schedule and effectively ended in 2010 because of the government's noncompliance with the terms.

Between 2008 and 2010 Pakistan invested an average of USD 959.73 million in the energy sector. By end of 2010, 87% of the population had gained access to electricity. However, electricity production between 2007 and 2010 dropped by 1.33% and average per capita electricity consumption during this period dropped to 391 kWh. Annual GDP growth rate dropped from 4% at the end of 2007 to a meager 1% at the end of 2010. The average growth rate during the duration of the SBA program was only 2.3%. The average inflation during this period was about 15.62%. Between 2008 and 2010 the average per capita GDP was USD 1261and it dropped by USD 10 between 2007 and 2010. External debt to GNI ratio grew to 32% in 2010 from 25% in 2008 and during this period the country paid approximately SDR 129 million in interest to the IMF.

Pakistan did not have an active agreement with the IMF in 2011 and 2012. 88% of the total population had gained access to electricity by the end of 2012 and average per capita electricity consumption for these two years was 387 kWh, a slight decrease from the previous period. Average electricity production during this period was 93,257 GWh and it increased by 1.8% between 2010 and 2012. In this period Pakistan invested an average of USD 969 million in the energy sector. Annual GDP growth rate rebounded to 3% by the end of 2012 and inflation came down to 9% by the end of 2012. Between 2010 and 2012 GDP per capita grew by 1.4% and stood at USD 1275 at the end of 2012. External debt to GNI ratio dropped to 25% by the end of 2012 and Pakistan paid SDR 198.20 million in interests to the IMF.

The country again faced a balance of payment crisis in 2013, triggered by a circular debt, crisis when its gross foreign reserves dropped to USD 6 billion, barely enough to cover 1 months' worth of imports[143]. Foreign direct investment and domestic private investments also fell during this period slowing down growth and the fiscal deficit continued to be over 8% of GDP[144]. The IMF approved a 36-month extended arrangement under the EFF program and sanctioned SDR 4393 million for disbursement upon quarterly reviews[145]. The conditionalities of the 2013 EFF program focused significantly on energy sector reforms. The IMF authorities urged the Pakistani government to address the "energy bottleneck", decrease energy subsidies, increase electricity tariffs, and improve the energy sector fuel mix[146]. Notably, even though the IMF acknowledged that the primary cause of the energy crisis was structural inefficiencies in the sector, it did not advocate for reforms that would tackle systemic issues such as, investments in the electric grid system to decrease T&D losses, investment in infrastructure to increase efficiency and capacity factors, finding alternatives to furnace-oil based power plants, and investing in exploration of indigenous energy resources.

Between 2013 and 2016, on average Pakistan invested USD 730 million in the energy sector, a figure that was significantly lower than the previous period. By the end of the of 2016 Pakistan's energy production increased to 12,3118 GWh and per capita energy increased by 18% between 2012 and 2016. The average per capita consumption during the EFF program was 431 kWh and by the end of 2016, 91% of the population had access to electricity. Between 2012 and 2016 the rate of annual GDP growth increase by 3% and the average per capita GDP during the tenure of the EFF program was USD 1371. Inflation dropped to 3.7% in 2016 from

[143] (Gressani, et al. 2013)
[144] Ibid.
[145] Ibid.
[146] Ibid.

9.6% in 2012. However, exports fell under the EFF program. During this period Pakistan paid SDR 140 million in interests to the Fund. In 2017 and 2018 Pakistan was not actively a part of any IMF program. Energy sector investment during this period increased with an average investment of USD 3639 million. 93% of the population had access to electricity by the end of 2018. Total debt service to exports ratio grew from 15% in 2016 to 19% in 2018 and inflation at the end of this period was at 5%.

Fueled by another circular debt crisis, Pakistan faced a BoP crisis in 2019 similar to that of 2013. Foreign reserves which stood at USD 8 billion were barely enough to cover 1.7 months' worth of imports and fiscal deficit to GDP ratio grew to about 7%[147]. The IMF approved a 39-month EFF program and sanctioned the disbursement of SDR 4268 million[148]. However, due to the onset of the COVID-19 pandemic the program was extended by a year. The main terms of the package included the reduction of public debt through fiscal consolidation, imposing a flexible and market determined exchange rate, reforming the energy sector to eliminate circular debt, and reforming tax policies[149]. During this EFF program, the average investment in the energy sector was USD 1055 million and by the end of 2023, 95% of the population had access to electricity. Annual GDP growth during this period was volatile due to the effects on COVID-19. In 2020 the country experienced a negative GDP growth of -1.2%. The growth rate rebounded to 6% the following year. However, after the invasion of Ukraine in 2022, higher import costs led to a negative GDP growth rate again. The war in Ukraine also increased food and energy prices that lead to an inflation rate of 30% in 2023, an increase of 20 percentage points from 2019. At the end of 2023 the country's debt to GNI ratio was 39% and total debt service to export ratio increased to 43%. During this period Pakistan paid SDR 768 million in

[147] (Arvanitis, et al. 2019)
[148] Ibid.
[149] Ibid.



interests to the IMF. Following the end of the EFF program in 2023, Pakistan agreed to a second EFF program in 2024, and an additional RSF program in 2025 due to continued BoP crisis triggered by the war in Ukraine and climate change related calamities.

Chapter V: Methodology

In order to investigate the relationship between IMF programs and investments in Pakistan's energy sector, I use a multivariable semi-log OLS regression model. The dataset for this study was compiled using publicly available data from World Bank International Debt Statistics and World Bank Development Indicators databases. The dependent variable in this model is the natural logarithm of total energy sector investments by public and private entities in Pakistan between 2001 and 2023. I apply a log-transformed dependent variable for this model because it allows coefficients to be interpreted as percentage changes. This model has four main independent variables namely, "IMF Program Enrolment", "Lag Year 1", "Lag Year 2", and "Lag Year 3". IMF program enrolment is a dummy variable coded as 1 if in any given year Pakistan had an active agreement with the IMF or 0 otherwise. In this model, an active IMF agreement is defined as the disbursement of allocated SDRs to Pakistan under a program within a specific year. However, enrollment in an IMF program may not have an immediate impact on the economy, as the implementation of new policies can take several months, and their effects may take even longer to materialize. To analyze the impacts of lag effects of IMF programs this model uses three dummy variables- "Lag Year 1", "Lag Year 2", and "Lag Year 3". "Lag year 1" is coded as 1 if Pakistan was enrolled in an IMF program in the previous year or 0 otherwise. "Lag Year 2" is coded 1 if Pakistan was enrolled in an IMF program 2 years prior or 0 otherwise. Similarly, "Lag Year 3" is coded 3 if the country was enrolled in an IMF program 3 years ago or 0 otherwise.

How much Pakistan invests in the energy sector in a given year can be determined by several other economic factors such as interest rates, inflation rate, GDP, and energy consumption. For example, if interest rates are high in a specific year, investments in the energy sector are expected to be low. Similarly, higher inflation is likely to lead to lower investments. On the

contrary, higher GDP and per capita energy consumption can generate more investment in the energy sector. To account for the effects of various economic factors, this model applies several control variables. Debt-service to GNI ratio and interest paid to the IMF are used as control variables alongside GDP, per capita energy consumption, interest rate, and inflation rate. For ease of interpretation, to account for heteroskedasticity, and diminishing marginal returns on investment, this model applies a natural logarithm of GDP, interest paid to the IMF, and per capita energy consumption.

Equation 1:

$$\ln(EnergyInvestment)_{it} = \alpha + \beta_1 IMFProgram_{it} + \beta_2 \ln(IMFInterest)_{it} + \beta_3 X_{1it} + \beta_4 X_{2it} \dots \beta_k X_{kit} + \varepsilon_{it}$$

Equation 2:

$$\ln(EnergyInvestment)_{it} = \alpha + \beta_1 Lag\ Year\ 1_{it} + \beta_2 X_{1it} + \beta_3 X_{2it} \dots \beta_k X_{kit} + \varepsilon_{it}$$

Equation 3:

$$\ln(EnergyInvestment)_{it} = \alpha + \beta_1 Lag\ Year\ 2_{it} + \beta_2 X_{1it} + \beta_3 X_{2it} \dots \beta_k X_{kit} + \varepsilon_{it}$$

Equation 4:

$$\ln(EnergyInvestment)_{it} = \alpha + \beta_1 Lag\ Year\ 3_{it} + \beta_2 X_{1it} + \beta_3 X_{2it} \dots \beta_k X_{kit} + \varepsilon_{it}$$

In equation 1, the natural log of energy investment in Pakistan in a specific year is regressed on IMF program enrolment in Pakistan in a specific year. As noted previously, IMF program enrolment is a dummy variable. In this equation, $\beta_3 X_{1it}$ to $\beta_k X_{kit}$ represent the logged variables such as, GDP and per capita energy consumption and the non-logged variables such as, inflation rate, interest rate, and debt-service to GNI ratio. In equation 1, the dependent variable is also regressed on the natural logarithm of interest paid to the IMF. In equation 2, 3, and 4, the dependent variable is regressed on "Lag Year 1", "Lag Year 2", and "Lag Year 3" respectively. In each of these equations $\beta_2 X_{1it}$ to $\beta_k X_{kit}$ represent all the logged and non-logged variables expect for IMF interests. In all the regression models α represents the constant term and ε_{it} represents the error term.

Table 2: **Determinants of energy sector investments**				
	Dependent Variable: Energy Sector Investment			
Independent Variable	**(1) IMF Enrolment**	**(2) Year 1**	**(3) Year 2**	**(4) Year 3**
	-0.778	-0.131	-1.095**	0.515
	0.294	0.836	0.048	0.357
	(0.698)	(0.616)	(0.486)	(0.534)
Debt-GNI	-0.284	-0.699*	-0.856**	-0.674*
	0.560	0.066	0.012	0.071
	(0.469)	(0.339)	(0.281)	(0.333)
GDP	1.703	0.829	0.997	1.005
	0.428	0.574	0.512	0.482
	(2.050)	(1.425)	(1.465)	(1.376)
Electricity consumption	5.133	7.422	6.163	7.626
	0.289	0.143	0.274	0.126
	(4.558)	(4.667)	(5.321)	(4.571)
Interest rate	0.147	0.071	0.032	0.082
	0.319	0.585	0.670	0.477
	(0.139)	(0.126)	(0.074)	(0.110)
Inflation	0.133**	0.099	0.027	0.137**
	0.037	0.178	0.614	0.019
	(0.054)	(0.069)	(0.051)	(0.049)
IMF interest	-0.125			
	0.769			
	(0.414)			
Constant	-53.34	-45.44*	-40.51*	-52.12*
	0.121	0.086	0.065	0.060
	(31.17)	(23.83)	(19.53)	(24.62)
Observations	17	17	17	17
R. squared	0.602	0.557	0.679	0.585
Root MSE	1.0574	1.0576	.8999	1.0244
Prob> F	0.034	0.053	0.004	0.058
Note	Robust Standard Error in parentheses. *, **, and *** represent statistical significance at 10%, 5%, and 1% level respectively.			

The results from the regression model indicate that even though there is an overall negative correlation between IMF programs and energy sector investments in Pakistan, the relationship varies, and the results are not always statistically significant. From column 1 of the regression table, it is evident that being enrolled in an IMF program tend to decrease investments in the energy sector when controlled for confounding economic factors, but the correlation is not statistically significant. Similarly, debt service to GNI ratio and IMF interests also have a negative correlation with energy sector investments but the results are not statistically significant. Column 2 reports the results from the second regression where energy sector investment is regressed on lag year 1. The results indicate that being enrolled in an IMF program in the previous year has a negative impact on energy sector investments in the current year. However, the p.value for this estimator is 0.836 and therefore, the results are not statistically significant. Interestingly, debt service to GNI ratio has a negative correlation with energy sector investments and the results are significant at a 10% level. This means that, one year since the enrolment in an IMF program, a one percentage point increase in debt service to GNI ratio decreases energy sector investments by 69% ceteris paribus.

The third column of the regression table reports the results of the model where energy investment was regressed on lag year 2 controlling for variables such a debt service to GNI ratio, GDP, per capita electricity consumption, interest rate, and inflation in Pakistan in a specific year. The coefficient on lag year 2 indicates that there is a negative correlation between being enrolled in an IMF program two years prior and energy sector investments in the current year and the results are significant at a 5% level. This means that, if Pakistan was enrolled in an IMF program two years prior, in the current year it would experience a 109% decrease in energy sector investments holding all other factors constant. Similarly, if Pakistan was in an agreement with the IMF two years prior, if debt service to GNI ratio increases by 1 percentage



point in the current year, then it would decrease energy sector investments by 85% at a statistically significant level. The fourth column of the table represents the results from the final regression where the dependent variable was regressed on lag year 3. It is evident from the coefficient that the relationship is positive but not statistically significant. However, the coefficient on the debt service to GNI ratio indicates that there is a statistically significant negative correlation between debt-GNI ratio and energy sector investment even three years since the signing of an IMF agreement.

In all the four regression models the GDP estimator has a positive relationship with energy investment, indicating that holding all else equal an increase in GDP leads to an increase in energy sector investment. However, none of the coefficients are statistically significant. Similar, to GDP, increase in per capita electricity also increases investment in the energy sector but the results are not significant. Interestingly, according to this model an increase in interest rate would increase energy sector investments which is in contradiction with economic intuition which states that higher interest rates would increase borrowing costs and thus decrease investments. However, the results for the relationship between interest rates and energy sector investment in this model are not statistically significant and therefore, not conclusive. In this model inflation also has a positive correlation with energy sector investments and for equation 1 and 4, the results are significant at a 5% level. The positive correlation is contrary to economic intuition that says inflation would discourage investments because money loses value with high inflation. However, inflation also means that more liquid money is circulating in the economy, which means private enterprises and government may have more nominal money to invest in the energy sector.

The R-squared for all the regressions are well above 0.50 indicating that the models are good fits and can explain more than 50% of the variation in energy investment across observations. However, the lack of statistical significance for most of the variables can be attributed to a small sample size of just 17 observations. To strengthen the regression model future studies can increase the sample size and add more control variables such as subsidy and tariff rates. Due to a lack of available data, increasing the sample size and accounting for further economic variations were not within the scope of this study. To account for confounding economic factors future studies can also employ a fixed effects regression model that observes variations in energy investment over several years while controlling for outside factors. Furthermore, future studies can use subsidies and tariff data as instrumental variables to study impacts of conditionalities more specifically. Due to the lack of publicly available data on subsidies and tariffs, an instrumental variable regression was not within the scope of this study. Prospective studies can also investigate the specific impacts of IMF programs on private and public sector investments separately. As data reported by the World Bank does not segregate between public and private sector investment data, a more targeted study was not within the scope of this study. Given the lack of statistical significance in most of the coefficients of this model, the results should be interpreted as explanatory and not definitive.

Chapter VII: Evaluation and discussion

The analysis in the previous section asserts that there is in general a negative correlation between enrolment in an IMF program and energy sector investments, especially two years after the initial disbursement of the loan. One of the reasons for this could be that usually a prerequisite for accessing IMF loans is to increase government revenue and decrease government spending. The Extended Fund Facility under which Pakistan gained access to SDR 4,393 million was predicated upon the government reducing the budget deficit by 2% of GDP in the fiscal year 2013-14 by increasing taxes and tariffs and decreasing subsidies[150]. Conditionalities as such can also discourage governments from making necessary investments in certain sectors. From publicly available World Bank data, it is evident that investments in the energy sector in Pakistan did decrease between 2012 and 2013 from USD 1,401 million to only USD 350 million respectively. Furthermore, the IMF agreement also required the government to increase industrial energy tariffs by 50% and residential energy tariff by 30%[151]. It also required the elimination of energy subsidies for the industrial and commercial sector in the first phase of the program[152]. Additionally, in the second phase of the program, the IMF conditionalities required the Pakistani government to eliminate energy subsidies for residential consumers who consume more than 200 kWh per capita[153]. In tandem these policies work to increase energy prices for consumers and decrease consumption. This leads to a reduction in revenue and profit generation for power producers which would discourage investments in necessary upgrades for the plants resulting in poor maintenance and infrastructure. Furthermore, increase in energy tariffs for the industrial sector and elimination of subsidies also mean that productivity in the sector would decrease leading to a decrease in GDP and

[150] (Gressani, et al. 2013)
[151] Ibid.
[152] Ibid.
[153] Ibid.

trigger a reduction in overall investments. As increase in tariffs lead to a rise in production costs and increases the barrier to entry, it discourages private sector and foreign investors from investing in the energy sector.

The regression analysis also indicates that when the ratio of debt servicing increases, energy sector investment decreases. This is because when a large proportion of a country's income goes towards paying off principal and interests on dollar denominated debts, it reduces the government's capacity to invest in the economy and infrastructure of a country. One of the conditionalities of the 2013 EFF package was to institute a more flexible exchange rate policy as well[154]. Policies as such often weaken a currency, in this case the Pakistani rupee (PKR), against the dollar. While this makes the exports of a country cheaper and thus more competitive, it also makes paying off its dollar denominated external debt more expensive. In fact, in 2013, 55% of Pakistan's external debt was dollar denominated[155]. This means that as the PKR weakened, the government had to pay more money to make principal and interest payments, making it harder to invest in the energy sector. Additionally, given that IMF loans are disbursed at variable interest rates, if monetary policies in the US, UK, EU, China, and Japan tighten during program period, then the cost of debt servicing for Pakistan would increase further. A weak currency also means that imports would become expensive, fueling inflation. Given that a large proportion of Pakistan's energy comes from imported fossil fuel, including oil for the furnace-oil based plants, a weaker currency would increase the price of the raw material for energy production, ultimately increasing cost. This is in fact one of the reasons for low energy production in Pakistan, despite having enough installed capacity. Often power producers cannot afford the high cost of imported fuel leading to idle power plants[156]. A weak

[154] Ibid.
[155] (World Bank Group, World Bank Group, DataBank: International Debt Statistics 2025)
[156] (Isaad 2024)

currency, elevated import costs, and high inflation collectively deter private sector investment by increasing uncertainty regarding currency valuation. Moreover, IMF prescribed policies such as, monetary tightening to curb inflation, often results in higher borrowing costs for firms, thereby further constraining private investment. In this context, IMF interventions can function as a double-edged sword: while addressing macroeconomic imbalances, they may simultaneously exacerbate structural weaknesses. It is therefore, imperative for the Fund to rigorously assess the country-specific implications for its policy recommendations prior to implementation.

Furthermore, as the interests charged by the IMF increases, the burden of debt servicing for Pakistan's government increases, meaning that the fiscal space for the government's discretionary spending decreases. As discussed in the section on IMF lending practices, the Fund imposes a surcharge of 2% when countries' overborrow by more than 187% of their quotas[157]. Under the EFF program of 2013, Pakistan borrowed at 425% of its quota, subjecting it to a 2% surcharge and increasing its interest rate to almost 8%[158]. Similarly, under the EFF program of 2019, Pakistan borrowed at 210% of its quota resulting in an increased cost of borrowing for the country[159]. Additionally, due to the pandemic, Pakistan failed to make timely payments to the IMF, subjecting it to another 1% surcharge on outstanding loans under the 2019 EFF program, increasing its costs further[160]. Higher interest rates increase the debt-service to GNI ratio for Pakistan that can ultimately decrease investments in the energy sector for the country.

[157] (Krahnke and Tordoir 2023)
[158] (Gressani, et al. 2013)
[159] (Arvanitis, et al. 2019)
[160] (Ibrahim 2022)

From the preceding discussion we can come to the consensus that while IMF assistance is imperative for countries, including Pakistan, to avert balance of payment crises and rebuild foreign reserves to bolster trade, the conditionalities of macroeconomic stabilization mandated by the Fund can be harmful for growth and can stifle necessary investments for development. Furthermore, the structure of IMF lending and cost can also be detrimental to investments and ultimately sustained growth. The debate over IMF conditionalities and structure is not a new phenomenon, however. Writing in the early 2000s, noble laureate, Joseph Stiglitz, criticized the Fund for deviating from its original goal of being the world's financial firefighter in times of dire crisis[161]. "The IMF's original mandate", Stiglitz wrote, "was to provide liquidity in a world of imperfect capital markets, so as to enable countries to maintain output as close as possible to full employment.[162]" He continues that assistance was conditioned not on macroeconomic stabilization measures that lead to contraction but on the recipient nation's efforts in adopting appropriate expansionary policies[163] [164]. The IMF, he argues, has resorted to becoming a "missionary institution" that champions "market supremacy" and pushes "free market ideologies" popularized by the Washington Consensus on to poorer countries under the guise of stabilization without regard for dire social consequences[165]. Citing the example of the IMF's botched response during the East Asian Economic Crisis, he also criticizes the IMF for recommending a "one size fits all" economic prescription for countries that turn to it for help[166].

In response to these criticisms, Stanley Fischer, a former IMF director, argued that stabilization reforms for countries in need are necessary because "structural problems lie at the heart of the economic crises" of the countries and that ignoring these issues would only lead to repetition

[161] (Stiglitz, Failure of the Fund: Rethinking the IMF Response 2001)
[162] Ibid.
[163] Ibid.
[164] (Stiglitz, Globalization and its Discontents 2002)
[165] Ibid.
[166] Ibid.

of the crises[167]. He also contended that given the financial structure of the world had evolved it was also important for the IMF to evolve and expand its mandate[168]. Fischer also supported the IMF engaging in surveillance of global financial markets, given the changing landscape of the world's financial architecture[169]. Joseph Stiglitz further criticized the Fund's fundamental structure. Given that, the Fund allocates voting rights based on member countries' relative contribution to the institution, G-7 countries with stronger economies, particular the US, ultimately have more leverage on the Fund's policies and agendas[170]. This makes the Fund a political institution that advances the interests of the Western creditor countries while disregarding the needs of the countries in need[171]. He also argued that the IMF should be held accountable by government and people of the debtor countries, given they are impacted the most by its policies[172]. Furthermore, he called for greater transparency of the Fund, accusing it of conducting most of its evaluations and negotiations behind closed doors[173].

Responding directly to these criticisms, Stanley Fischer, argued that "the Fund management is accountable to the shareholders, the member governments, who are represented in the executive board[174]. Given that, the Fund's operation is made possible by the contributions of the member countries, it is logical he argued, that "those who provided more of the resources" should also have more of the votes[175]. In terms of transparency, he argued that the Fund is sufficiently transparent with the governments it is dealing with and promotes transparency and

[167] (Fischer, In Defense of the IMF: Specialized Tools for a Specialized Task 1998)
[168] (Fischer, On the Need for an International Lender of Last Resort 1999)
[169] (Fischer, Meltzer, et al. 2003)
[170] (Stiglitz, Globalization and its Discontents 2002)
[171] (Stiglitz and Schoenfelder, Challenging the Washington Consensus 2003)
[172] (Stiglitz, Failure of the Fund: Rethinking the IMF Response 2001)
[173] Ibid.
[174] (Stiglitz, Globalization and its Discontents 2002)
[175] Ibid.

whether the governments were transparent with their citizens or not were the decisions of the governments and not the Fund's[176].

There is merit in both schools of thought of course. On one hand it is sound to argue that the institution needs to be democratized given that those who are impacted the most by its decisions are developing countries, whose voices are often overshadowed by advanced industrialized countries. On the other the argument that those who make the day-to-day operations of the Fund possible should have more say on Fund's policies and agenda is also credible. To contend that the Fund's conditionalities have stifled growth is as plausible as reasoning that these conditionalities were necessary to prevent recurring crises. The International Monetary Fund, as the firefighter of financial crisis of the world, perhaps has a greater mandate today than ever before. Today the institution, not only lends money to member countries during crises, but also surveilles the global economy, provides valuable technical assistance to its members, provides the mechanisms for consultation and collaboration on international monetary problems, collects critical data and improves data accessibility, and akin to its sister organization, The World Bank, plays a key role in global development. Developing countries rely on the Fund in times of desperation for much needed economic relief.

It is perhaps high time for the Fund to acknowledge that with an exceptional mandate, comes exceptional responsibilities and cease being beholden to shareholder politics. It is imperative for the institution to recognize that there is no one time tested formula for growth and that the definition and mechanism of growth varies from nation to nation and society to society. It is also important for the Fund to understand that cookie cutter economic stabilization prescriptions are not appropriate for all economies and that policies need to be specialized and

[176] Ibid.

targeted. The Fund should, therefore, develop and embrace alternative and new models of growth and unlike the past it should avoid being beholden to any one model. Recent developments at the Fund suggest that it is perhaps rethinking its approaches. The Fund's 2019 EFF program for Pakistan acknowledged that Pakistan's circular debt crisis is a deep structural issue and cannot be tackled by just reducing subsidies and increasing tariffs[177]. To truly tackle its energy sector problems, Pakistan needs to invest in developing its energy sector infrastructure and reduce T&D losses[178]. The program also emphasizes the need to strengthen social safety nets and urges Pakistan to invest in programs that support the most vulnerable population[179].

However, I contend that it is important for the Fund to be more specific with its recommendation. For example, one of Pakistan's principal problems with the energy sector is its poor efficiency and low-capacity factor of its plants. It is important that Pakistan invests in building energy plants that have a higher rate of efficiency. Besides investing its Grid system to lower T&D losses, Pakistan should also diversify its energy mix so that it is not over reliant on imported fossil fuel and thus beholden to price fluctuations due to external political factors. To recover the cost of energy production, the country should also invest in technology to prevent electricity theft and ensure utmost bill recovery. Additionally, Pakistan should invest in making energy more affordable for its citizens in order to boost growth. Pakistan should also consider public and private sector investments to explore its indigenous deposit of fossil fuel, such as coal, and develop infrastructure to extract resources sustainably. It should also explore avenues for development in renewable energy such as, solar and hydroelectricity. I also assert that it is perhaps imperative for the Fund to reevaluate its surcharge policies given the debt

[177] (Arvanitis, et al. 2019)
[178] Ibid.
[179] Ibid.



servicing burden it puts on developing countries and the adverse impact it has on investments. Moreover, the Fund must recognize that developing economies are acutely susceptible to external shocks, global monetary tightening, and geopolitical tensions and should tailor its policy recommendations to account for this heightened sensitivity. Finally, it is essential for the Fund to recognize that societies differ significantly in terms of cultural norms, existing social safety nets, geopolitical and climatic contexts, and historical trajectories. Given these structural variations, some countries may be more receptive to stringent austerity measures than others; failure to account for such differences in policy design can provoke populist backlash and lead to adverse political and social outcomes.

On the other hand, it is imperative for developing countries like Pakistan, to understand that the economic prescription provided by the IMF is not going to automatically ameliorate all its issues. Economic reforms require strong political will, transparency, and long-term agenda. Often, due to internal political instability, weak institutions, corruption, and non-democratic practices, countries like Pakistan, fail to implement much needed economic reforms at the detriment of its citizens. The burden of developing a country through targeted, well-designed policies, and continuous effort, is ultimately on the country and not the IMF. While the IMF, through reformed policies can provide specialized assistance to the countries without stifling development, growth and development cannot be attained without continued strong political will, accountability, and institutional reform by the recipient countries.

Chapter VIII: Conclusion

Contemporary geopolitical tensions between Pakistan and its neighboring countries, along with the onset of the Russia-Ukraine war, have underscored the vulnerability of Pakistan's energy sector. As emphasized in previous sections of this article, about 60% of Pakistan's energy is generated from imported fossil fuel in aging power plants that have efficiency rates as low as 30%[180] [181]. The overreliance on imported fossil fuel has rendered the energy sector susceptible to external shocks. The outbreak of the Russian-Ukraine war led to a global surge in oil prices, subsequently increasing fuel costs and inflation in Pakistan and contributing to the current circular debt and BoP crisis. Moreover, the take-or-pay agreements signed with Independent Power Producers (IPPs), which obligate the Pakistani government to compensate the power companies regardless of actual energy generation, have further exacerbated the energy sector debt crisis[182].

The energy sector is also plagued by chronic power theft and low bill recovery rates, further aggravating the crisis. Additionally, due to an outdated and rickety electric grid system, Pakistan has a transmission and distribution loss of about 16%, meaning that a substantial portion of the energy produced is never consumed by households and industries[183]. The chronic delay in the TAPI pipeline and Iran-Pakistan gas pipeline has also led to erosion of investor confidence and uncertainty in the energy sector in Pakistan. Furthermore, the recent suspension of the Indus Water Treaty by India has caused alarm in the sector as 20% of Pakistan's total energy is generated from hydroelectricity and all 21 of its hydroelectric plants are situated

[180] (International Energy Agency, International Energy Agency: Pakistan 2025)
[181] (Feng 2023)
[182] (Akram 2023)
[183] (World Bank Group, DataBank: World Development Indicators 2025)

along the Indus River basin[184] [185] . All these factors have led to protracted underinvestment in the energy sector both by public and private entities and have contributed to underconsumption in the country. The limited energy production has hindered industrialization in Pakistan, thereby contributing to prolonged economic stagnation. In the light of recent geopolitical events, it has become crucial for the Pakistani government to investment in the energy sector and ensure its energy security.

However, Pakistan faces multiple challenges in the path of energy sector investments. Alongside lack of political will and weak institutions, Pakistan has had to grapple with the socio-economic consequences of IMF conditionalities. The Fund has played a crucial role in preventing several sovereign defaults in Pakistan; however, the bailouts have had prolonged impacts on the country's economy. The IMF loans usually come with prerequisites of macroeconomic stabilization also known as conditionalities. The policy recommendations under the macroeconomic stabilization package range from subsidy cuts and tax increases to liberalizing foreign exchange rates and increasing interest rates. Given that, these policies are designed to increase government revenue and decrease consumption, they are also known as austerity measures. Such austerity measures usually encourage governments to reduce spending leading to lower energy sector investments. This article studied the impacts of IMF programs on Pakistan's energy sector using a semi-log multivariable OLS regression and publicly available World Bank data between 2001 and 2023. The results from the analysis show that there is a statistically significant negative correlation between being enrolled in an IMF program and energy sector investments in Pakistan. Specifically, if Pakistan was enrolled in an IMF program two years prior, then energy sector investments in the current year would

[184] (International Energy Agency, International Energy Agency: Pakistan 2025)
[185] (Michel 2025)



decrease by 109%. Furthermore, the study also found that an increase in debt service to GNI ratio leads to a statistically significant decrease in energy sector investment. This means that as the debt servicing burden increases for Pakistan due to higher interest rate and weaker currency, energy sector investments decrease. The study also found that even though there is a negative correlation between IMF interest charges and energy sector investments, the results are not statistically significant.

A common IMF prerequisite for Pakistan has been to liberalize foreign exchange rates. Sudden liberalization of foreign exchange rates usually leads to depreciation of the Pakistani rupee against the US dollar. Given that, about 85% of Pakistan's debt is denominated in the U.S. dollar, the devaluation of the rupee raises the cost of debt servicing for the country. This means that the country has to pay more in rupee to make its principal and interest payments denominated in U.S. dollars, leading to reduced fiscal space, and subsequently decreased investments in the energy sector. The devaluation of the rupee also increases the cost of imports and drives up inflation, further weakening the economy. Inflation and expensive imports, raise fuel costs leading to lower energy production and exacerbate the circular debt crisis. In tandem, these increases uncertainty in the energy sector, and discourages public and private companies from investing in the sector. Another common IMF prerequisite has been to tighten monetary policy by increasing interest rates. Higher interest rates increase the borrowing cost for investors further decreasing investments in the energy sector. The IMF has also historically recommended reducing energy subsidies and increasing energy tariffs that have led to higher prices for consumer and have hurt lower income households the most. Such policies make affording energy difficult for households, leading to higher rates of default payments that ultimately aggravate the circular debt crisis plaguing the energy sector.

Given the volatile nature of the energy sector and its vulnerability to geopolitical tensions, the IMF needs to ensure that its policies of macroeconomic stabilization do not hinder investments and growth in the energy sector. Furthermore, the Fund's policy recommendation should be more specific and targeted towards ameliorating the issues that plague the sector. Recommendations can include setting targets for energy sector investment, phasing-out furnace oil-based plants and building energy efficient plants, investing in upgrading the grid system, designing policies to increase bill recovery rates, investing in sustainably extracting indigenous deposits of coal and natural gas, designing policies that encourage investments in the renewable sector, and investing in climate-proofing existing and future infrastructure.

Simultaneously, it is imperative for Pakistan to acknowledge that improvements in IMF recommendations will not alleviate the energy sector crisis without active efforts from the government. The government needs to work towards strengthening its institutions, democratic legitimacy, and accountability. Electricity is one of the primary prerequisites for sustainable industrialization and socio-economic development. Given that a substantial portion of the fiscal budget is allocated towards Pakistan's military accounting for its sensitive geopolitical location, considering the recurrent energy crisis, it is perhaps important for the government to reevaluate its priorities and reallocate funds towards attaining energy security. Pakistan's development will remain stagnant if the energy sector crisis is not addressed and if energy security is not ensured in a timely manner. Continued inaction in addressing the crisis due to governmental oversight and lack of political will risks exacerbating Pakistan's vulnerability to both foreign aggression and internal insurgency. Furthermore, it curtails the government's abilities to respond when an external crisis occurs. Energy sector security, therefore, is not only a prerequisite for Pakistan to ensure sustainable economic growth but also to protect its sovereignty. Hence, it is imperative for the Pakistani government to take active steps to

ameliorate the energy sector crisis and ensure energy security through fiscal reallocation, strengthening institutions, and increasing accountability. Concurrently, it is important for the IMF to ensure that its policies do not hinder Pakistan's energy sector development by aggravating the country's debt burden and macroeconomic stability.

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