Quarterly Energy Monitor (Oct-Dec, 2020)

Circular Debt in Pakistan

Table of Contents

PART A: INTRODUCTION AND BACKGROUND OF CIRCULAR DEBT

Introduction

Pakistan's energy sector has always been a constant source of trouble for its economy. The last quarter (October – December) of 2020 witnessed significant developments in this sector where the circular debt jumped to new heights with every passing month. The crisis in the gas sector has also emerged these days leading to multiple problems for the consumers and the government alike; an acute shortage of gas during the peak winter season, the LNG scandal and the emergence of circular debt in this sector as well. In another development, Pakistan's Prime Minister announced at the virtual climate summit 2020 to abandon coal-based power production in the future.

In this Quarterly Energy Monitor, our focus largely remains on the issue of circular debt in the power sector and its impact on the stumbling economy of the country. As per recently available information, it has reached to past Rs2.306 trillion[1]. Pakistan's GDP growth has already touched a negative rate while Pakistan is taking huge loans from international lenders (IMF, ADB, etc.) to meet the challenges of debts. So, the circular debt has multiple implications for Pakistan's economy, energy sector and end consumers.

Concept of Circular Debt

The term "Circular Debt" is a little complicated to understand because it encompasses multiple institutions and financial dimensions of the power sector. It involves Central Power Purchasing Agency (CPPA), National Transmission and Dispatch Company (NTDC), Distribution Companies (DISCOs), IPPS (Independent Power Producers), Generation Companies (GENCOs) etc. CPPA purchases electricity from generation companies for supply to DISCOs through the transmission company i.e. NTDC. After this CPPA raises invoices of two services; cost of supplied electricity to DISCOs and use of system charges of the NTDC. The distribution companies are bound to pay the due amount to CPPA within given time. Timely payment of dues enables CPPA to make payments to the generation and transmission companies. CPPA performs role of "inter alia". However, distribution companies usually fail to submit their dues on the required time owing to low recoveries and line losses due to poor infrastructure of the existing transmission system. These low and late payments create trouble for the generation companies. Because generation companies buy fuel from local and international oil

[1] https://www.dawn.com/news/1600293

suppliers they're unable to make payments to their fuel supplier. This whole phenomenon creates circular Debt.

On the other hand under the Power Purchase Agreements (PPAs), the delay in payments to the power companies bears mark-up and increases the financial liability of CPPA.

At present circular debt in Pakistan is not only affecting the liquidity of the fuel supplier, generation, transmission and distribution companies but also increasing the cost of electricity for the end-consumer[2].

Emergence of Circular Debt in 2007

The term "Circular Debt" came to attention with the advent of load-shedding during the regime of former President Pervez Musharaf in 2007. The responsible entity, CPPA, of the power sector failed to collect and submit outstanding dues to power supply companies which include GENCOs, IPPs and fuel suppliers. Mainly two reasons led to this crisis at that time; the absence of a uniform tariff regime and the huge increase in the prices of crude oil at international market. These two factors directly affect the power sector because Pakistan's energy mix is highly dependent on fossil fuels. Since Pakistan is not self-sufficient in oil resources it has to rely heavily on international oil market to meet its energy needs.

The government avoided to impose NEPRA announced tariff on end consumers. The prices were not allowed to rise in line with high international oil prices and as a result created a financial gap in the power sector which came to be known as 'Circular Debt'.

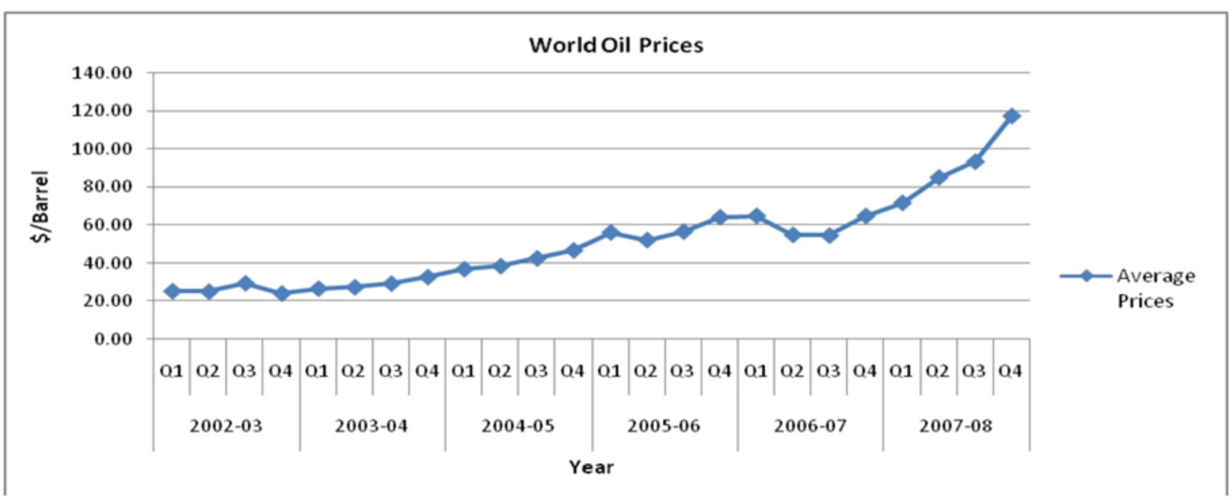

Figure 1 Rise in Oil Prices after the financial crisis of 2007-2008

Source: Report State Bank of Pakistan

[2] NEPRA, "State of Industry Report 2020," 2020.

There was a also a sharp devaluation of the Pakistani rupee against the US dollar, leading to a further increase in the cost of imported fuels which ramped up the import bills of the country and contributed significantly to the emergence of circular debt.[3]

Causes of Circular Debt

Pakistan's Power Sector has always been facing governance, operational, technical and financial issues. Multiple structural issues are at the roots of circular debt including poor planning, flawed policies, absence of uniform tariff regime and irrational and unbudgeted subsidies.

Transmission and Distribution Losses

The term "Aggregate Technical and Commercial (AT&C) losses" covers the transmission and distribution losses (T&D) as well as commercial losses in the power sector. The contribution of AT&C losses amounted to around Rs. 187 billion in 2018. This had mainly happened due to the poor performance of the DISCOs, whereby the average line losses in 2018 stood at 18.3% against an international standard of 10%. This gap between the targeted T&D losses and those actually incurred leads to an insufficient recovery of the total cost of power generation.

Table 1 T&D losses incurred by the DISCOs (2018-2020)

Year	PESCO	TESCO	IESCO	GEPCO	LESCO	FESCO	MEPCO	HESCO	SEPCO	QESCO
2018-19	36.56	11.97	8.86	9.87	13.17	9.81	15.79	29.49	36.97	23.56
2019-20	38.69	16.19	8.69	9.51	12.44	9.62	15.23	28.82	36.27	26.68

Source: NEPRA State of Industry Report, 2020

Technical Losses

Technical losses within the power system include losses generated due to energy dissipated in the capacitors, conductors, transformers and other electrical equipment. Pakistan leads the region in in Aggregate Technical & Commercial (AT&C) losses[4]. This is a mainly due to a lack of investment in transmission and distribution infrastructure and over burdening of the infrastructure that exists.

---

[3] Senator Shibli Faraz, "Circular Debt- Issues and Solutions (Senate Report)," August 2018.

[4] https://tribune.com.pk/story/2217986/pakistans-power-sectors-losses-highest-region

Power theft/Commercial losses leading to low recovery

Non-technical losses in the power system include pilferage of electrical units by hooking, by passing meters, defective meters, errors in meter reading and in estimating un-metered supply of energy. Such losses lead to a reduction in recovery costs for electricity supplied to the grid and are attributable to the non-recovery of billed amounts by DISCOs. The estimated cost of power theft during 2017 to 2018 was over Rs. 53 billion[5].

Low recovery from the private sector by the DISCOs

To date recovering unpaid bills is big challenge for highly inefficient distribution companies and often face criticism for their poor performance. DISCOs are tasked with the sale of electricity to various consumer classes based on the price approved by NEPRA. However, the government of Pakistan has allocated various subsidies to agricultural, residential and industrial consumers. These subsidies are often delayed and result in the DISCOs facing a liquidity crunch due to non-receipt of funds from both the government and the private sector.

A comparison of recovery percentages of DISCOs during FY 2018-19 and FY 2019-20 is given below:

Table 2 Recovery by DISCOs (2018-2020)

Year	PESCO	TESCO	IESCO	GEPCO	LESCO	FESCO	MEPCO	HESCO	SEPCO	QESCO	Overall DISCOs
2018-19	88.62	67.91	87.61	96.37	97.68	99.28	99.35	74.47	63.28	27.33	90.25
2019-20	87.65	68.16	90.27	94.36	94.48	94.18	92.94	73.19	56.54	49.25	88.77
Inc./Dec	(0.97)	0.25	2.66	(2.01)	(3.20)	(5.10)	(6.41)	(1.28)	(6.74)	21.92	(1.48)

Source: NEPRA State of Industry Report, 2020

Announcement of Unbudgeted Subsidies

The government follows a practice of the provision of subsidies to certain consumer groups like agriculture tube-wells in Baluchistan, consumers in FATA and AJK and export-oriented industry. Whenever the government is unable to provide the subsidy amount on time, it gets added to the circular debt. These subsidies could in fact be

[5] https://www.dawn.com/news/1459682

adding up to about almost Rs. 100 billion to the circular debt stock every year[6].In 2018, receivables from AJ& K government stood at Rs. 99.3 billion while Quetta Electric supply company owed the Federal government and the government of Balochistan Rs. 44.4 billion on account of Agriculture tube-well subsidy.

The government also maintains a policy of the application of a uniform tariff across all geographical regions of Pakistan. This has been made possible through the offering of a tariff differential subsidy, which covers the gap between the NEPRA determined tariff for a region and the government notified uniform tariff. These subsidy payments amounting to an annual Rs. 150 to 200 billion[7] are also delayed by the government leading to a further buildup of circular debt.

PART B: ECONOMIC AND FINANCIAL IMPLICATIONS OF CIRCUALR DEBT ON PAKISTAN'S ECONOMY

Impact of Circular Debt on Pakistan's vulnerable Economy

Pakistan's total fiscal debt and the shifting of circular debt to public debt

Pakistan's total external debt and liabilities stood at a total of Rs. 44.8 trillion at the end of September 2020, which comprises of domestic, external, public sector and private sector debt[8]. Power Holding Private Limited (PHPL), an entity created in 2009 to procure commercial loans from local banks for provision of capital to the cash strapped DISCOs, GENCOs, CPPA and NTDC holds a significant portion of the total circular debt[9]. As part of the Energy Sector Reforms and Financial Sustainability Program by the Asian Development Bank introduced in 2019, about Rs. 800bn held by PHPL was decided to

[6] "Powering The Power Sector By Tabish Gauhar | Of ThinkTank | Narratives Magazine," accessed January 22, 2021, https://narratives.com.pk/thinktank/powering-the-power-sector/.
[7] "Powering The Power Sector By Tabish Gauhar | Of ThinkTank | Narratives Magazine."
[8] Standard Bank of Pakistan, "Pakistan's Debt and Liabilities-Summary (2020)," September 2020, https://www.sbp.org.pk/ecodata/Summary.pdf.
[9] Senator Shibli Faraz, "Circular Debt- Issues and Solutions (Senate Report)," August 2018.

be absorbed by the public sector debt in Pakistan over a period of three years[10]. This would essentially mean that circular debt burden would now partially be shifted to the public sector; and if the same strategy is to be adopted for the future as a means of debt reduction, this burden would only increase with time for the total debt stock parked within PHPL increased to Rs. 1.004 trillion in June, 2020.

Impact of Circular debt on Pakistan's Economy

To understand the impact of circular debt on Pakistan's economy, it would perhaps be prudent first to have a recap of the causes of this phenomenon. Circular debt in part is being caused by the high cost of electricity generation in the power sector, which cannot be passed on to the regular consumer. In addition, the government's uniform tariff policy also means that despite higher transmission and distribution costs in some geographical regions of the country, these extra costs cannot be charged to the residents of these areas. As a result, the government has to step in and make up for this difference through the provision of tariff differential subsidies, which lead to market in-efficiencies and the diversion of financial flows which could otherwise be used for developmental gains or re-vamping of the transmission and distribution infrastructure.

Even K-electric, which was privatized to remove operational inefficiencies and line losses, is the recipient of government subsidies and has received billions to date, to ensure that consumers falling within the jurisdiction of the utility are not faced with discriminatingly high energy prices;.

[10] Khaleeq Kiani, "Rs800bn of Circular Debt Stock to Be Shifted to Public Debt," DAWN.COM, December 17, 2019, https://www.dawn.com/news/1522649.

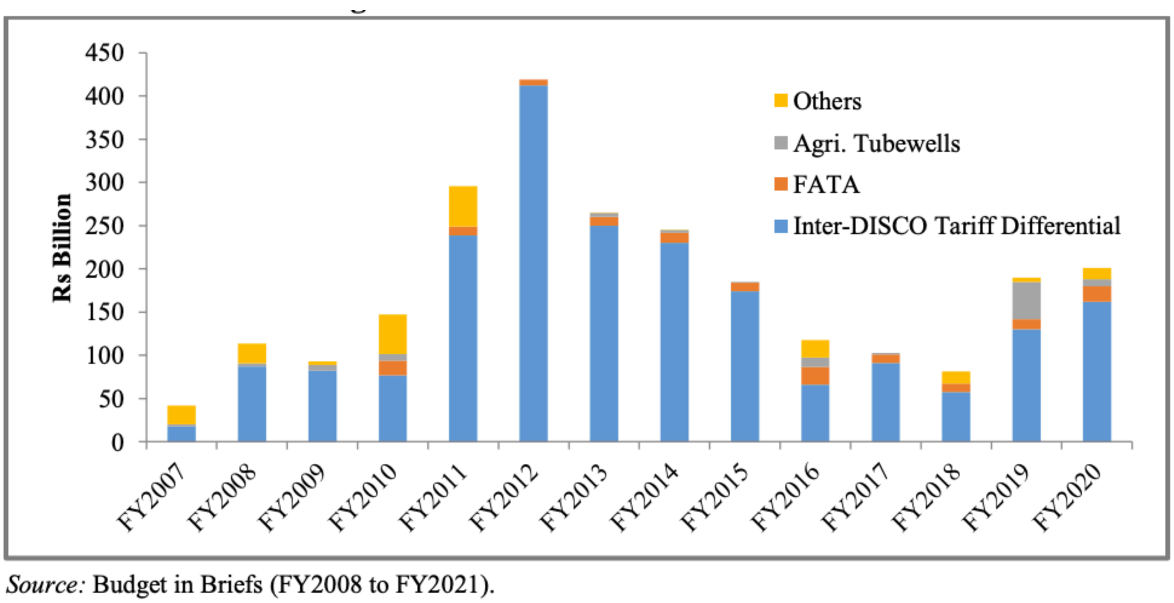

Figure 2 Governmental subsidies to WAPDA/PEPCO over the years. (Courtesy: Afia Malik- Circular Debt; An Unfortunate Misnomer)

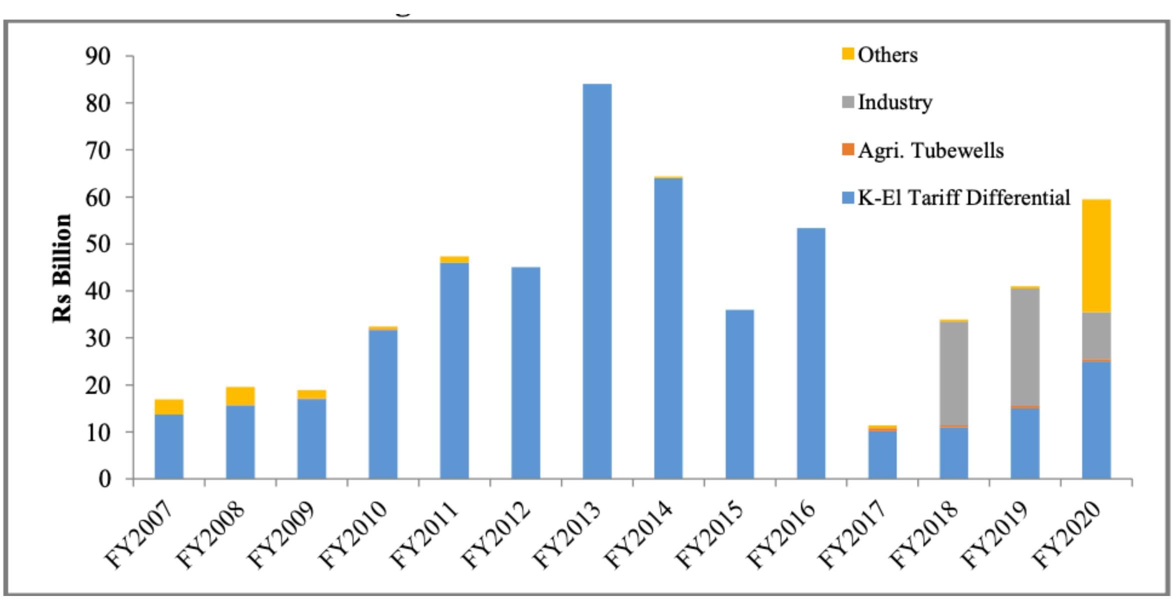

Figure 3 Subsidies to K-Electric (Courtesy: Afia Malik- Circular Debt; An unfortunate Misnomer)

It is reported that since the FY 2007, the government has spent around Rs. 2.5 trillion in subsidies to the power sector in the form of tariff differential subsidies alone. Subsidies by nature, lead to market in-efficiencies and result in sub-optimal results. The federal government's budget allocations for subsidies in the power sector were revised to Rs. 349.5 bn from Rs. 271.5bn[11]. In comparison the total budget allocation for the Public Sector Development Program (PSDP) was Rs. 650 billion, out of which the health

[11] "Govt Slashes Subsidy Budget by 23% for FY21," The Express Tribune, June 12, 2020, http://tribune.com.pk/story/2241563/govt-slashes-subsidy-budget-23-fy21.

sector had an allowance of just Rs. 20 billion[12]. This goes to show that even in times of a health pandemic, the government's priorities have to shift to the power sector when it comes to financial allocations.

A high cost of generation due to expensive power projects such as the Neelum Jhelum Hydro power project or power generation from Thar coal, lead to the notification of higher tariffs and surcharges on electricity bills. Such charges and price hikes, put an extra burden on the consumers which are compliant and pay for electricity. Non-compliant consumers that don't pay, or steal electricity further widen the financial gap that is the circular debt. Power theft and low recoveries by the DISCOs, also lead to the DISCOs shedding load on some of the feeders (where theft is common and recovery low), resulting in the penalization of law-abiding and paying customers as well, who fall within the jurisdiction of the same feeders.

The presence of financial shortfalls and payment arrears which contribute to circular debt, also mean that the DISCOs and IPPs have a shortage of working capital and are forced to reduce their plant productivity. Meanwhile capacity payments which have been built into power purchase agreements with many of the thermal IPPs including RLNG, Coal and Baggasse, continue to accumulate adding further to the circular debt.

Industrial units and factories which are immensely dependent upon the availability of power for their daily operations are forced to resort to captive generation using diesel or furnace oil, which is not only costly but is highly polluting as well.

Historical progression of circular debt during different political regimes

Pakistan People's Party (2008-2013)

The phenomenon of circular debt first emerged in 2006, when local electricity prices could not compete with the steep rise in international oil prices. As a result, the high cost of generation could not be fully passed on to the common consumer, which led to the build-up of financial liabilities amounting to Rs. 111 billion. As the oil crisis worsened further, the build-up of circular debt increased proportionately as well, where it is reported that the total circular debt stock stood at Rs. 366 billion during 2010[13]. The Pakistan People's Party government responded by periodically injecting capital in the system, to keep it afloat and to manage debt. This increased government borrowing from commercial banks and led to the creation of PHPL to park this debt as mentioned earlier. The government also introduced a hike in consumer tariffs with quarterly revisions in the tariff itself and monthly fuel adjustments for fuel pricing. However, these

[12] "No Great Support for Corona-Hit Health Infrastructure," accessed January 12, 2021, https://www.thenews.com.pk/print/672075-no-great-support-for-corona-hit-health-infrastructure.
[13] Afia Malik, "Circular Debt—an Unfortunate Misnomer," *Pakistan Institute of Development Economics*, 2020, 41.

measures proved to be unsuccessful and the monstrosity of circular debt rose to Rs. 872 billion in 2012[14].

Pakistan Muslim League-N (2013-2018)

A new government by the PML-N was elected in 2013, which came in with the mandate to wipe out circular debt completely which had reached Rs. 480 billion by then. The government did this with a liquidity injection of Rs. 342 billion as well as budgetary support in the form of direct subsidies. The stop-gap solution was an in-complete one, unaccompanied by any reforms in the expensive generation mix, or the removal of in-efficiencies in the T&D system. The opposite happened in fact, as NEPRA revised the permissible T&D losses in the tariff from 13.19 to 15.23 percent in FY2016[15].

As a result of this piecemeal approach, circular debt had again emerged by the end of 2013, this time to the tune of Rs. 266 billion. The injection of liquidity into the discos had temporarily elevated average power plant utilization rates from 56 to 73 percent, but after the re-emergence of circular debt, these again fell back to 63% as cash flows to the power generation companies got constrained again. In September 2015, the PMLN introduced a circular debt management plan that focused on the privatization of DISCOs to remove system inefficiencies and increase revenues, however the plan was shelved as the receivables of the DISCOs kept increasing. PML-N had inherited a very expensive generation mix, with furnace oil accounting up to 40% of the total generation in the country in 2013. To reduce this heavy dependence on imported furnace oil, the PMLN government instead decided to switch to imported RLNG as a means of salvation. Four new RLNG power plants were thus inducted into the generation mix and began operation around mid 2018. While this seemed like the right decision at that time, in the long term it hasn't really solved the problem of an expensive generation mix. All four power plants have 'take or pay' contracts with a minimum off-take requirement of 66%. This basically means that even if the plant utilization is below 66%, the government would still be paying these power plants for 66% of the generation, thus adding to the over-all cost of power generation in the country, which is a direct contributor to the phenomenon of circular debt. The government also increased the basket price of electricity by adding three different surcharges to the consumer electricity tariff as well as a general price increase. The power policy of 2015, introduced by the government to address the demand supply shortage in the power sector, also laid the foundation for the addition of imported and Thar coal to the generation mix. These coal power plants also function on the same principle of 'take or pay' contracts and have a minimum

[14] Malik.
[15] Malik.

off take requirement of 50%, hence being an additional source of addition to the cost of electricity in the country through capacity payments.

Hence receivables for CPPA kept increasing along with the amount of debt parked in PHPL. By the end of 2017, the circular debt stock was a little less than a trillion rupees (Gross payables were Rs. 560 billion, while debt on PHPL amounted to Rs. 432 billion)[16][17].

Pakistan Tehreek-e-Insaaf (2018- Present)

The PTI government was elected to power in July, 2018, with the looming debt crisis in the power sector one of the most immediate challenges faced by the new government. During the FY 2018, the government raised a further Rs. 144 billion as debt held in PHPL, taking the total of the debt burden on the DISCOs to Rs. 538.5 billion[18]. This meant that the PTI government inherited Rs. 1.18 trillion as circular debt.

Following in the footsteps of its predecessors, the PTI government had no choice but to raise consumer tariffs periodically, as a means of controlling the debt situation. However, despite the tariff increases, the circular debt in the country kept mounting reaching Rs. 1.61 in June 2019[19]. The onset of the COVID-19 pandemic in February 2020 also meant that businesses and industries had to suddenly shut down, and many consumer classes could not pay their bills due to economic difficulties. The subsidies offered by the government were delayed as well, hence, circular debt levels rose by almost Rs. 1.5 billion a day, reaching a high of almost Rs. 2.26 trillion by the end of Nov 2020[20]. The 2.26 trillion figure comprises of more than a trillion rupees parked in PHPL and around Rs. 1.26 million as liabilities against power companies.[21] It is now predicted that circular debt would probably grow to Rs. 2.81 trillion by the end of FY 2020-2021[22].

---

[16] Senator Shibli Faraz, "Circular Debt- Issues and Solutions (Senate Report)."
[17] Malik, "Circular Debt—an Unfortunate Misnomer."
[18] Senator Shibli Faraz, "Circular Debt- Issues and Solutions (Senate REport)."
[19] NEPRA, "State of Industry Report 2020."
[20] Malik Asad, "Power Sector Circular Debt Rises to Rs2.26tr," DAWN.COM, November 3, 2020, https://www.dawn.com/news/1588319.
[21] Khaleeq Kiani, "The Ticking Time Bomb of Circular Debt," DAWN.COM, October 12, 2020, https://www.dawn.com/news/1584617.
[22] "Govt to Hike Power Tariff by Rs3.30 to Plug Circular Debt," accessed January 18, 2021, https://www.thenews.com.pk/print/774527-terms-for-revival-of-imf-programme-government-to-hike-power-tariff-by-rs3-30-to-plug-circular-debt.

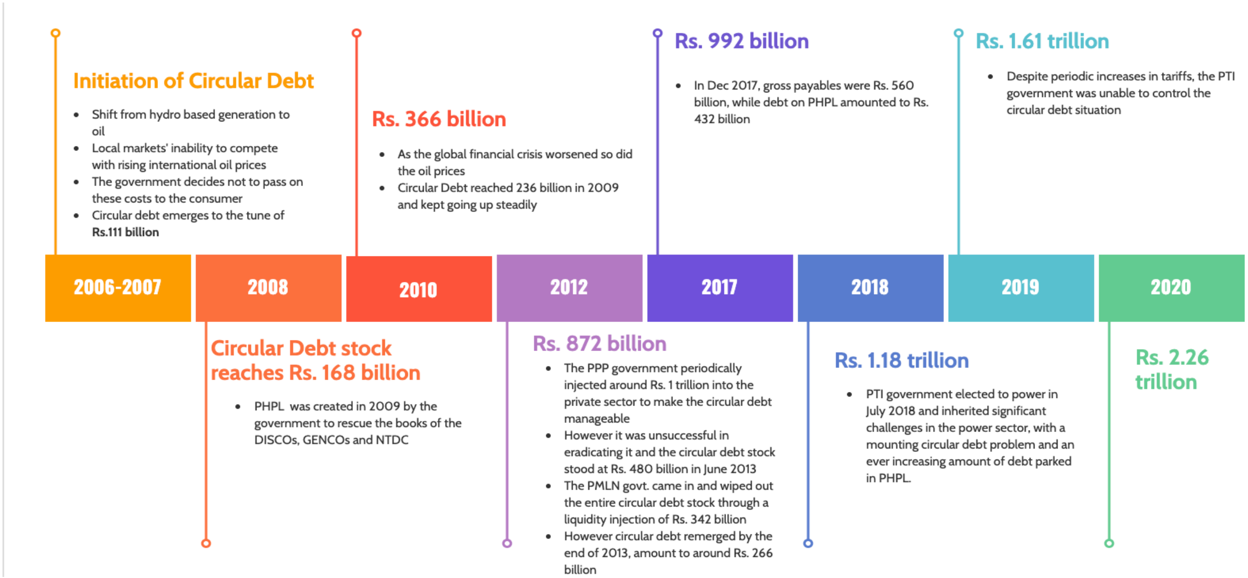

Figure 4 The rise of circular debt in Pakistan through the years

PART C: GOVT'S PLANS TO RECTIFY THE CIRCULAR DEBT SITUATION AND THEIR EFFECTIVENESS

Over the years, the government has tried several strategies to get rid of circular debt in the country. The solutions however have been devoid of any long-term institutional reforms and have rather focused on short term solutions involving a sudden injection of funds to give the financial books a temporary makeover. This has led to a funneling of almost Rs. 2.6 trillion into the financially challenged power sector in the form of equity adjustments since 2013. In addition, almost 3.1 trillion has also been injected into the system in the form of subsidies during various political regimes since 2007. Equity injections to the power sector have mainly come in the form of government borrowing from commercial banks in the form of syndicated term finance facilities and parking it under the platform of PHPL.
International assistance from the Asian Development Bank (ADB) and the International Monetary Fund (IMF) have also been sought out to rescue the power sector but often come with hefty directives, which the government must oblige to, before these funds can be disbursed.

'Pakistan Energy Sukuk'- I& II

The first Energy Sukuk was introduced by the government in March 2019, in a bid to lessen the burden of the power sector payables. A Sukuk is a *shariah* compliant bond, usually offered by Islamic banks, which in this case was a consortium of Islamic Banks led by Meezan Bank Limited. The Rs. 200 billion raised this way, were meant to provide liquidity support to the entire energy sector including oil and gas suppliers, the DISCOs, IPPs and WAPDA[23].

Another energy sukuk of the same value was again issued in June, 2020 to ease the liquidity constraints of the independent power producers. Port Qasim Electric Power Company received 11% of the 200 billion[24], followed by Central Power Purchasing Company which received Rs. 15.2 billion. Wapda Hydel and National Power Parks Management were also amongst the major recipients.

MOUs signed with IPPs to reduce capacity payments

The federal government recently granted unanimous and explicit approval for the signing of Memorandum of Understanding (MOUs) between the government and about 47 IPPs, where the power producers agreed to the conversion of 'take or pay' contracts

[23] Dawn.com, "Ministry of Energy Issues Rs200bn 'Pakistan Energy Sukuk,'" DAWN.COM, March 2, 2019, https://www.dawn.com/news/1467190.
[24] News Desk, "Gov't Disburses Rs 200 Billion Sukuk-II to Energy Sector," *Mettis Global News* (blog), accessed January 18, 2021, https://mettisglobal.news/govt-disburses-rs-200-billion-sukuk-ii-to-energy-sector.

into 'take and pay' contracts to reduce capacity payments to the energy suppliers. In return the government would settle outstanding dues towards these producers. However, the mode of payment offered by the government in this regard remains a point of contention, as the IPPs want an upfront settlement of about Rs. 450 billion in cash, whereas the government has offered to do this in three installments containing a mix of cash and bonds[25].

International Assistance/Loans to curtail Circular Debt

Energy Reforms by the Asian Development Bank

International assistance programs to the government of Pakistan in the matter of reducing circular debt have always revolved around substantial overhaul in the tariff and subsidy structure. The 300 million dollar policy based loan offered by the ADB in December 2019, was no different. The Manila-based lending agency has initiated a one billion dollar energy sector reforms and financial sustainability program for the ailing energy sector of the country, comprising of 3 subprograms. The first tranche of the reform program was worth $300 million and focuses on improving inadequate tariff and subsidy systems, strengthening energy accounting mechanisms and reducing the over-all cost of generation. It proposes to do so by utilizing the sales proceeds of some of the generation assets, converting portions of debt held under the PHPL into public debt, removal of in-efficient unbudgeted subsidies and advance notifications of quarterly energy tariffs for 2021.

The funding requirements will be met with the support of ADB's development partners, and the reform program is part of a wider multi-donor economic reform program led by the International Monetary Fund (IMF), to help Pakistan rejuvenate its worsening economy.

$6 billion Extended Fund Facility by the International Monetary Fund (IMF)

In July, 2019 the International Monetary Fund (IMF) approved a 39-month international assistance program under the Extended Fund Facility (EFF) program for Pakistan worth $6 billion to support Pakistan's economic reform program.

The facility includes a variety of stipulations to be met for the reduction of public debt and increase in social spending. The program also includes comprehensive reforms for

[25] Khaleeq Kiani, "IPPs Not Impressed by Govt Plan for Dues Settlement," DAWN.COM, January 6, 2021, https://www.dawn.com/news/1599952.

the energy sector including. A depoliticization of the gas sector and power tariff setting, and an increase in revenue generation and cost recovery over time[26].

The first review of the EFF program was completed in December, 2019, where it was found that Pakistan's economic reform program was on track. For energy sector reforms and the circular debt in public, the authorities had formulated a circular debt management plan in consultation with IMF staff. The plan aimed at a reduction of the circular debt from its current level back then to a manageable Rs. 50-75 billion by FY-2023. The plan includes and anti-theft drive, streamlining of tariff procedures and reintroduction of surcharges, timely updating of tariffs, improving efficiency, governance and collection of DISCOs as well as rightsizing of subsidies. Under the plan NEPRA Act would be amended to afford the regulator the power to quarterly adjust and notify tariffs and introduce tariff surcharges to stem the build-up of financial arrears.

The DISCOs would appoint a completely independent board of directors, to reduce politicization between these entities and improve governance.

To reduce the stock of existing power sector arrears, it was proposed that a strategy would be designed to settle the debt stock including transfer of CPPA payables into PHPL and the full absorption of PHPL into the budget of Pakistan. This would entail the government taking over debt servicing of the loans contained within PHPL. Power assets would also be privatized and the proceeds used for reducing outstanding payables in the power sector.

However, the EFF program was temporarily suspended as the economic recovery of the country took a downward spiral due to the COVID-19 pandemic. At present the program is under consideration for revival. In order to ensure that pre-conditions for the revival are met, the government is now preparing to raise the electricity tariff by Rs. 1.90 per unit within the next few days. The total tariff raise is projected to be around Rs. 3.30 per unit, which will be passed on to the consumers in phases, the first being the Rs. 1.90 per unit raise.

Conclusion

As is apparent, despite the government's well-intentioned motives behind its circular debt resolution strategies, no permanent reduction in the phenomenon has ever

[26] "IMF Executive Board Approves US$6 Billion 39-Month EFF Arrangement for Pakistan," IMF, accessed January 18, 2021, https://www.imf.org/en/News/Articles/2019/07/03/pr19264-pakistan-imf-executive-board-approves-39-month-eff-arrangement.

resulted over the years, mainly due to the ephemeral nature of the reforms introduced. The government's strategy over the years has either been to raise tariffs or inject equity into the system in the form of subsidies or loans through PHPL. However, the root cause of the problem i.e. a high level of transmission & distribution losses, power theft or the backbreakingly expensive generation mix reliant on imported fuels and supported by capacity payments. The provision of subsidized electricity to consumers in AJ&K, FATA and agricultural tube wells in Balochistan are major contributors to the circular debt phenomenon too but nothing has been done so far remove these in-efficiencies in the system. Mr. Khurram Lalani, Principal at Resources Future, and an energy policy and finance specialist with an extensive experience in helping the government deal with the circular debt issue was interviewed about how the circular debt issue in the country could be resolved. He emphasized on two major things that needed to be on the government's agenda if the circular debt in the country was to be eradicated. 1) A healthy and active discourse in the parliament on the issue of subsidies. Mr. Lalani opined that at present, there were no debates in the parliament on who the recipient of subsides should be. There were many consumers in the country which were receiving highly subsidized electricity, while others bore the brunt of these inefficiencies. It was therefore very important that such matters were brought to the floor of the parliament, and the rightful of recipients of these subsidies identified. 2) Privatization of the DISCOs for better governance, increased recoveries and reduction of T&D losses. Quoting the example of K-electric, Mr. Lalani emphasized that privatization was the ultimate solution to getting rid of circular debt. K-electric had 40% line losses, when the utility the formed, now these losses stand at 20%. Privatization of the DISCOs, would generate revenue which could be utilized towards the reduction of the circular debt stock. In addition, privatization would lead to an improved governance structure of the DISCOs, with increased recoveries and reduced T&D losses.

Tabish Gauhar, Special Assistant to the Prime Minister on Power, in a recent article also discusses the issue of targeted subsidies. He puts forward the argument that 93% of all domestic consumers receive some form of subsidy, where the top 25% receive disproportionately more than the bottom 10% that deserves these subsidies the most. This support to domestic and agricultural consumers is mostly 'cross-subsidized' by the Industrial and commercial sector, where higher tariffs charged to these entities make up for the lower tariffs charged to domestic and agricultural consumers. He reiterates that such subsidies should be targeted towards the areas and people that deserve it the most, and the form of support should ideally be in the form of direct cash transfers. The tariff differential subsidy should also be done away with and more efficient DISCOs should be rewarded with a lower tariff. The provinces should pitch in, if they want to maintain uniform tariffs for their consumers.[27]

Though, privatization would be the ultimate solution to get rid of operational inefficiencies of the DISCOs, it is certainly a long term solution and more flexibility and involvement of provincial governments is needed in the near term to bring the circular debt to a manageable level.

It wouldn't be wrong to say that the phenomenon of circular debt could never be resolved, until the root cause of the problem i.e. an expensive generation mix with heavy reliance on imported fuel and an end to capacity payments. The government's move to renegotiate power purchase agreements with around 4 dozen IPPs in this regard is a welcome move, provided that it goes through. Care should also be taken that any future agreements that are drawn up between power producers and the government are done on more favorable terms for the consumers, with less generous rate of returns for the power producers and no indexation against the US dollar (When the dollar rises against the Pakistani rupee, this results in higher returns to the power producers). A wide-spread uptake of renewable energy is also needed to reduce the over all cost of generation. Renewable energy technologies are must run technologies and come without the problem of any capacity payments. In addition, they're the cheapest form of generation at present, not only worldwide but in Pakistan as well.

[27] "Powering The Power Sector By Tabish Gauhar | Of ThinkTank | Narratives Magazine."

References

Asad, Malik. "Power Sector Circular Debt Rises to Rs2.26tr." DAWN.COM, November 3, 2020. https://www.dawn.com/news/1588319.

Dawn.com. "Ministry of Energy Issues Rs200bn 'Pakistan Energy Sukuk.'" DAWN.COM, March 2, 2019. https://www.dawn.com/news/1467190.

Desk, News. "Gov't Disburses Rs 200 Billion Sukuk-II to Energy Sector." *Mettis Global News* (blog). Accessed January 18, 2021. https://mettisglobal.news/govt-disburses-rs-200-billion-sukuk-ii-to-energy-sector.

The Express Tribune. "Govt Slashes Subsidy Budget by 23% for FY21," June 12, 2020. http://tribune.com.pk/story/2241563/govt-slashes-subsidy-budget-23-fy21.

"Govt to Hike Power Tariff by Rs3.30 to Plug Circular Debt." Accessed January 18, 2021. https://www.thenews.com.pk/print/774527-terms-for-revival-of-imf-programme-government-to-hike-power-tariff-by-rs3-30-to-plug-circular-debt.

IMF. "IMF Executive Board Approves US$6 Billion 39-Month EFF Arrangement for Pakistan." Accessed January 18, 2021. https://www.imf.org/en/News/Articles/2019/07/03/pr19264-pakistan-imf-executive-board-approves-39-month-eff-arrangement.

Kiani, Khaleeq. "IPPs Not Impressed by Govt Plan for Dues Settlement." DAWN.COM, January 6, 2021. https://www.dawn.com/news/1599952.

———. "Rs800bn of Circular Debt Stock to Be Shifted to Public Debt." DAWN.COM, December 17, 2019. https://www.dawn.com/news/1522649.

———. "The Ticking Time Bomb of Circular Debt." DAWN.COM, October 12, 2020. https://www.dawn.com/news/1584617.

Malik, Afia. "Circular Debt—an Unfortunate Misnomer." *Pakistan Institute of Development Economics*, 2020, 41.

NEPRA. "State of Industry Report 2020," 2020.

"No Great Support for Corona-Hit Health Infrastructure." Accessed January 12, 2021. https://www.thenews.com.pk/print/672075-no-great-support-for-corona-hit-health-infrastructure.

"Powering The Power Sector By Tabish Gauhar | Of ThinkTank | Narratives Magazine." Accessed January 22, 2021. https://narratives.com.pk/thinktank/powering-the-power-sector/.

Senator Shibli Faraz. "Circular Debt- Issues and Solutions (Senate REport)," August 2018.

Standard Bank of Pakistan. "Pakistan's Debt and Liabilities-Summary (2020)," September 2020. https://www.sbp.org.pk/ecodata/Summary.pdf.