



Innovation &  
Technology Centre

**State of the Pakistan Economy**

**Estimates of Annual Growth  
in Pakistan**

**Quarter One, Financial Year 2024**

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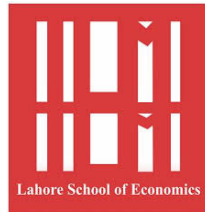
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**State of the Pakistan Economy**  
**Estimates of Annual Growth and**  
**Inflation in Pakistan**  
**Quarter One Financial Year 2024**



**Innovation &  
Technology Centre**

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## Executive Summary

### GDP Growth and Inflation Estimates for the Fiscal Year 2024

The Lahore School of Economics macro model for the Pakistan economy projects that GDP growth over the fiscal year July 2023 – June 2024, (FY 2024), will be 2.71%. This estimate for the whole fiscal year FY 2024, is based on observed values for just its first quarter (Q1), for the months of July to September of 2023. Which are then projected for the remaining three quarters (Q2-Q4), for the months of October 2023 to June 2024.

Our estimation of GDP growth is comparable to GOP's estimate of GDP growth for FY 2024 of 3.5% by the Ministry of Finance, and a range of 2%-3% by the State Bank of Pakistan.

The IMF has a smidge lower estimate, compared to ours, for FY 2024 of 2.5%. The Asian Development Bank and the World Bank have even lower estimates, compared to both, for FY 2023 of 1.9% and 1.7%, respectively.

What explains the weak recovery in GDP growth, from the flatline over FY2023, is strong evidence of hysteresis. Of the continuation of the import constraint, from FY 2023, to FY2024. The economy is highly import dependent, especially large-scale manufacturing, as FY 2022 shows. A high growth rate of GDP verging on 6% over FY 2022, required import levels of \$90 billion. Over FY 2023 these import levels dropped to \$67 billion. Over FY 2024 this import constraint still appears to bite. Prior to the import constraint, in FY 2022, the level of imports required per month topped \$7 billion. Over FY 2023 this import level dropped down to \$5.5 billion per month. Over the first quarter (Q1) of FY2 024 this import level has persisted at \$5.5 billion per month.

The import constraint has continued from FY 2023, to FY 2024, because its causal factors have also continued from FY 2023 to FY 2024. These have been observed to be, a persistent deficit in the current account (CA), a rapidly depreciating exchange rate, and weak reserves of foreign exchange. All three causal factors, make it more difficult to pay a high import bill, which is needed for higher GDP growth.

### Inflation for the Fiscal year 2024

Inflation for the past 15 months from July 2022 to October 2023, is estimated by our model at 29.39%.

For FY 2024, the overwhelming driver of inflation has been the huge depreciation of the exchange rate. By some 37% as observed already over the first quarter (Q1) of FY 2024. Contributing to near two thirds of the inflation rate.

The second major driver of inflation for FY 2023 has been the fiscal deficit. Estimated to be 6.0% over the fiscal year.

A significant and increased contributor to inflation over the past 15 months, from July 2022 to October 2023 giving the most recent estimates for this report, has been change in commodity prices. The impact of increased energy prices on inflation, for this most recent period, comes in at 4.2%.

The most interesting variable to emerge from this report's estimation and analysis of inflation, is energy prices. True, the other major contributors to inflation, depreciation of the exchange rate, and the fiscal deficit, are larger than the variable of change in energy prices. However, both depreciation and the deficit, result in an increase in inflation almost inadvertently. In that the express aim of GOP, by allowing depreciation of the exchange rate, is not to increase the price level in the economy. Nor is it the express aim of GOP, by running a budget deficit, to increase the price level in the economy.

However, the variable of change in commodity prices, is different from these other major contributors to inflation, depreciation, and budget deficits. In the variable of change in commodity prices, GOP is seen to raise energy prices, as stated policy.

Granted, some of these increases in energy prices, may be necessary to cover rising producer costs. However, our estimates for this report show, that a much larger part of the increase in energy prices, is based on increased taxation.

So, GOP policy, to a surprising extent, based on reducing revenue shortfalls through increased energy taxation, is inflationary.

### **GOP's Economic Policy over FY 2024**

So, GOP's first policy challenge, to raise GDP growth, has to be to break the hysteresis that appears to have become embedded in the economy since FY 2023, persisting into FY 2024.

The crisis for the economy is largely a current account (CA) crisis. GOP's agreement with the IMF for the short-term SLA loan of \$3 billion, can only be a palliative at best. 23 agreements with recourse to IMF loans, only serve to sharpen this policy lesson. That the economy's main vulnerability is on its current account (CA). No domestic restructuring of the economy will fix the current account (CA). Only restructuring the current account will fix the current account.

High inflation too appears to have become embedded in the economy, over FY2023 and as observed in the first quarter (Q1) of the FY 2024. Inflation has raged, approximating 30%.

The three main causal factors for such high inflation, estimated by our model, are rapid depreciation of the exchange rate, a large budgetary deficit, and an increase in energy prices.

GOP policy, in allowing a depreciation of the exchange rate, or running a high budget deficit, does not have the objective of raising consumer prices. It is an inadvertent result.

However, GOP policy, in raising energy prices, does have the objective of raising consumer prices. Further, the report estimates that near two thirds of the increase in the prices of the six main sources of energy, are not to recoup an increase in suppliers' prices. But to raise GOP's tax.



Here GOP policy must be prudent. GOP needs to reduce its budget deficit, by raising taxes. But raising ad valorem taxes on energy are very inflationary, as observed in this report. Raising income taxes will not be inflationary. They will also be more progressive. As ad valorem taxes on some sources of energy cannot be, like on petrol.

## State of the Pakistan Economy

### Estimates of Annual Growth and Inflation in Pakistan

## GDP Growth Estimates for Fiscal Year 2024

The Lahore School of Economics macro model for the Pakistan economy projects that GDP growth over the fiscal year July 2023 – June 2024, (FY 2024), will be 2.71% (See Table 1). This estimate for the whole fiscal year FY 2024, is based on observed values for just its first quarter (Q1), for the months of July to September 2023. Which are then projected for the remaining three quarters (Q2-Q4), for the months of October 2023 to June 2024.

**Table 1: Estimates for GDP Growth Rate FY 2023**

		FY 2023 (obs)	FY 2024 (est)
<b>GDP (\$ bn)</b>	Supply plus Demand Shock $Y_{(S+D)}$	<b>376.49</b>	<b>386.7</b>
<b>C</b>			281.57
<b>I</b>			60.867
<b>G</b>			46.37
<b>NXn</b>			-2.1
<b>Growth Rate (%)</b>			<b>2.71%</b>

Source: Lahore School Modeling Lab Estimates, 2023

This low estimate of GDP growth for FY 2024, is based on a sustained weakness in sectoral growth over the first quarter (Q1), especially in large scale manufacturing, which has barely broken even, from the contraction of the previous year FY 2023 (See Table 2). And a weak, below trend growth, recovery in agriculture. So, a flatline estimation for the annual growth rate of GDP for FY 2023, has been succeeded, by an expectation of a weak recovery of GDP growth for FY 2024 of 2.71%.

**Table 2: Sectoral Growth Rates**

	FY 2023	FY 2024
Agriculture	1.55%	2.00%
Industry	-2.90%	0.50%
LSM	-2.90%	0.50%
Services	0.90%	0.86%

Source: Ministry of Finance, 2023

Our estimation of GDP growth is comparable to GOP's estimate of GDP growth for FY 2024 of 3.5% by the Ministry of Finance, and a range of 2-3% by the State Bank of Pakistan (See Table 3).

The IMF has a smidge lower estimate, compared to ours, for FY 2024 of 2.5%. The Asian Development Bank and the World Bank have even lower estimates, compared to both, for FY 2023 of 1.9% and 1.7%, respectively.

**Table 3: Comparable Growth Rate Projections FY 2024**

<b>GOP</b>	<b>3.5%</b>
<b>State Bank of Pakistan</b>	2-3%
<b>IMF</b>	2.5%
<b>World Bank</b>	1.7%
<b>ADB</b>	1.9%

Source: WEO, IMF (Oct, 2023), World Bank (Oct 2023), ADB (Sep 2023)

### *Hysteresis*

Our model uniquely estimates, twin supply and demand shocks, which can be positive or negative. The supply shocks, feed into demand shocks. To give a final change in GDP for FY 2024.

The weak recovery in GDP growth for FY 2024, estimated here based on observed values for the first quarter (Q1), projected over the following three quarters (Q2-Q4), implies a persistence of the major supply and demand shocks countenanced by the economy over the preceding year of FY 2023. It implies a hysteresis or scarring of the economy.

Over FY 2023, our model estimated two supply shocks and two demand shocks, working to flatline GDP growth to 0.05%.

The first supply shock, was of course, the flood damage to lives, livelihoods and incomes, over the first quarter (Q1) of the fiscal year 2023, from July to September 2022, taking a devastating toll.

This loss was followed by a second supply shock, in quarters two, three and four (Q2, Q3, Q4) of FY 2023, by sectoral growth being hit by import constraints and economic uncertainty. A Balance of Payments (BOP) crisis, with a depreciating exchange rate, and falling reserves for the State Bank of Pakistan (SBP), resulted in these import constraints. Especially weakening manufacturing growth.

The coefficient for the import content of capital goods, intermediate goods, and energy, contributing to value added in manufacturing being quite high.

The flood damage, and the import constraints cum economic uncertainty, give two supply shocks in all.

On the demand side, the first shock for the four quarters of FY 2023, was the reduced income from the supply shock, feeding into reduced demand.

The second demand side shock, in Q1, Q2, plus much of Q3, for FY 2023, was a continued drop in the Current Account (CA) balance as seen in Table 4. The CA balance was in deficit, despite the fall in imports, based on a fall in export demand. With the first seven months of successively observed deficits, ranging between \$0.2 billion and \$1.2 billion. Only over the last five months of FY 2023 did the CA break even or run a surplus. So, the CA for the full FY 2023 still ran a deficit of \$2.1 billion.

Table 4: Current Account Balance FY 2024

Million US\$	FY 22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	FY 23	Jul-23	Aug-23	Sep-23	Q1-FY 24
<b>Total Exports</b>	40,152	2,882	3,463	3,190	2,894	2,956	3,106	2,914	2,904	3,136	2,642	3,244	2,731	36,062	2,704	3,082	3,151	8,937
<b>Total Imports</b>	90,171	6,677	6,933	6,047	5,826	5,470	5,619	5,115	4,957	5,161	4,971	5,159	4,686	66,621	5,624	5,499	5,489	16,612
<b>Exports-Imports</b>	-50,019	-3,795	-3,470	-2,857	-2,932	-2,514	-2,513	-2,201	-2,053	-2,025	-2,329	-1,915	-1,955	-30,559	-2,920	-2,417	-2,338	-7,675
<b>Remittances</b>	32,637	2,547	2,758	2,551	2,363	2,238	2,223	1,971	2,017	2,775	2,347	2,229	2,369	28,388	2,145	2,253	2,292	6,690
<b>Current Account Balance</b>	<b>-17,382</b>	<b>-1,200</b>	<b>-676</b>	<b>-316</b>	<b>-569</b>	<b>-276</b>	<b>-290</b>	<b>-230</b>	<b>-36</b>	<b>750</b>	<b>18</b>	<b>314</b>	<b>414</b>	<b>-2,097</b>	<b>-775</b>	<b>-164</b>	<b>-46</b>	<b>-985</b>
<b>Depreciation</b>	29.7%													50.8%				37.4%
<b>Foreign Exchange Reserves</b>	<b>9,814</b> (June, 2022)	8,395	8,805	7,859	8,759	7,722	5,585	3,086	3,864	4,208	4,458	3,679	4,466	<b>4,466</b> (June, 2023)	8,159.2	7,808	7,615	<b>7,615</b> (Sep, 2023)

### *Hysteresis in supply shocks*

Coming to FY 2024, our model estimates GDP growth for the full fiscal year of FY 2024, based on the observed values for the first quarter (Q1) of the year. And then projecting these observed values from the first quarter (Q1), over the remaining three quarters (Q2-Q4). These projections are also subject to some assumptions about expectations.

The observed values for the first quarter (Q1) of FY 2024, show the onset of hysteresis in the economy. A carryover of the major supply and demand shocks, from FY 2023 to FY 2024.

Of the two supply shocks, and two demand shocks to the economy over FY 2023, the brunt appears to be continuing for FY 2024, as observed over the first quarter (Q1) of the new fiscal year.

The first supply shock of FY 2023 of flood damage to agriculture, brought sectoral growth down to a third of its trend value from the previous fiscal years 4.4%, to 1.5%. Table 2 shows that the expectation is for agricultural growth over FY 2024 to barely recover to a half of its trend value, to 2%.

The second supply shock of FY 2023 of sectoral growth, especially large-scale manufacturing, being hit by import constraints, and economic uncertainty, also appears to extend into FY 2024. Because the underlying causal factors appear to persist from FY 2023 to FY 2024.

Both the import constraint, and its causal factors, can be seen to carry over from FY 2023 to FY 2024, in Table 4. Trend value of imports, from FY 2022 can be seen to verge on \$7billion per month. Which accumulates to \$90 billion for the whole of FY22. These plunge to \$5 billion per month over the second half of FY 2023. Which accumulates to a huge drop in imports over the whole FY 2023 of \$66 billion. That is imports drop by a quarter between FY 2022 and FY 2023.

This import constraint carries over from FY 2023 to 2024. Over the first quarter (Q1) of FY 2024, these imports have barely nosed up to approximate \$5.5 billion per month. Which still gives a 21% drop compared to monthly imports in FY 2022. So, the import constraint in effect has continued from FY 2023 to FY 2024.

The import constraint has persisted because its causal factors have continued from FY 2023 into FY 2024. These are threefold:

A significantly large Balance of Payments deficit, making it difficult to pay for more imports,

A depreciating exchange rate making imports more expensive;

And very low reserves of foreign exchange.

All three causal factors underlying the import constraint appear to have persisted from FY 2023 to FY 2024.

Table 4 shows that the causal factor of the BOP deficit, underlying the import constraint, has carried over from FY 2023 to FY 2024. Over FY 2023, the BOP deficit mounted to \$2.1billion.

In the first quarter (Q1) of FY 2024, the observed BOP deficit has already mounted up to near \$1billion.

Table 4 also shows that the second causal factor of the depreciating exchange rate, underlying the import constraint, has carried over from FY 2023 to FY 2024. Over FY 2023, the exchange rate depreciated by 50.8%. In the first quarter (Q1) of FY 2024, the observed depreciation of the exchange rate already comes in at 37.4%.

Table 4 further shows that the third causal factor of low foreign exchange reserves, underlying the import constraint, has again carried over from FY 2023 to FY 2024. These forex reserves in June 2022 stood at \$9.8 billion. Over FY 2023 these reserves plummeted to \$4.4 billion. Over the first quarter (Q1) of FY 2024, these reserves have risen to \$7.6 billion, but not returned to the FY 2022 trend levels.

So, what this quantitative assessment of the import constraint shows is, strong evidence of hysteresis. Of the continuation of the import constraint from FY 2023 to FY 2024. Because all the causal factors underlying this import constraint, of BOP deficits, depreciating exchange rate, and weak reserves, all show signs of hysteresis. Of their continuation from FY 2023 to FY 2024.

Ergo, despite policy pronouncements, and even will, this import constraint is still seen to have bite over FY 2024.

And what completes the operation of this second supply shock, over FY 2024, is its continued impact in weakening growth in large scale manufacturing. Given the huge coefficient of reliance of value added in this sector, on imports of energy and intermediate products. Table 2 shows that industrial growth contracted over FY 2023 by near 3%. Compared to trend growth in the sector of over 7%. By FY 2024, the sector has just managed to break even at 0.5%. Hysteresis prevails again.

### *Hysteresis in demand shocks*

In our model, a negative supply shock to income, gives a negative demand shock to expenditure. There is good evidence of hysteresis in the economy. In the continuation of the two major supply shocks, from FY 2023 to FY 2024, of below trend agricultural growth, and an import constraint weakening manufacturing growth. Therefore, there will also be hysteresis in the perpetuation of the negative impact of the supply shocks to income, on the demand shock to expenditure. Which gives the first demand shock, for FY 2024, perpetuated by hysteresis from the demand shock of FY 2023.

The second demand shock which also carries over from FY 2023 to FY 2024, is the drop in exports. Table 4 shows that over FY 2022, exports averaged \$3.3 billion per month. To cumulate to \$40 billion over the whole of FY 2022. Over FY 2023 exports dropped on average to \$3 billion per month. To cumulate to \$36 billion over the whole of FY 2023. So, demand for exports fell by 10% over FY 2023. This drop in demand for exports continues from FY 2023 to FY 2024. In quarter one (Q1) of FY 2024, exports barely average \$3 billion per month.

The persistence of this fall in export demand, from FY 2023 to FY 2024, still combines with the observed extension of the import constraint from FY 2023 to FY 2024, to give a carry-over of a significant deficit on the current account (CA), from FY 2023 to FY 2024.

In sum, two supply shocks, and two demand shocks, have worked to flatline GDP growth over FY 2023. They appear to have triggered hysteresis in the economy, because their extension is well observed into the first quarter (Q1) of FY 2024. Allowing a very weak recovery in GDP growth in FY 2024, of 2.71%.

## Inflation Estimates (July 2022 to October 2023)

Inflation for the past 15 months from July 2022 to October 2023, FY 2023, is estimated by our model at 29.39%, as shown in Table 5.

**Table 5: Price Model Estimated for FY 2020, FY 2021, FY 2022, FY 2023 and FY 2024**

Time Period	Output Gap (% of GDP)	Budget Deficit (% of GDP)	Exchange Rate Depreciation %	Commodity Prices Impact on P	Inflation *Model Estimate %	CPI **GOP estimate %
FY 2020	-1.70	6.40	0.88	-2.00	5.28	9.30
FY 2021	-1.80	5.20	-0.78	9.07	13.49	8.20
FY 2022	0	7.00	3.59	7.69	15.88	11.00
FY 2023	0	5.00	26.26	2.04	33.30	29.0
<b>FY 2024</b>	<b>0</b>	<b>6.00</b>	<b>19.25</b>	<b>4.15</b>	<b>29.39</b>	<b>31.4 (GOP) 29.2 (IMF)</b>

Source: Economic Survey of Pakistan FY 22, SBP 2023, Lahore School Modeling Lab Estimates 2023

Our estimate of inflation at 29.39% for FY 2024, is quite comparable to GOP's estimate of 31.4% and IMF's estimate of 29.2%. Our model estimates inflation as being driven by four factors:

An output gap,  
A budget deficit,  
Depreciation of the exchange rate,  
And global commodity prices.

For FY 2024, the overwhelming driver of inflation has been the huge depreciation of the exchange rate. By some 37% as observed already over the first quarter (Q1) of FY 2024. Contributing to near two thirds of the inflation rate.

The second major driver of inflation for FY 2023 has been the fiscal deficit. Estimated to be 6.0% over the fiscal year.

A significant and increased contributor to inflation over the past 15 months, from July 2022 to October 2023 giving the most recent estimates for this report, has been change in commodity prices-for which, read energy prices. The impact of increased energy prices on inflation, for this most recent period, comes in at 4.2%.

The output gap has been disinflationary over the previous three fiscal years on account of the Covid pandemic lockdowns. Post pandemic, this output gap has been estimated to be neutral in its impact on inflation. Neither disinflationary, nor inflationary.

### *The significance of the increase in energy prices on inflation*

The most interesting variable to emerge from this report's estimation and analysis of inflation, is energy prices. True, the other major contributors to inflation, depreciation of the exchange



rate, and the fiscal deficit, are larger than the variable of change in energy prices. However, both depreciation and the deficit, result in an increase in inflation almost inadvertently. In that the express aim of GOP, by allowing depreciation of the exchange rate, is not to increase the price level in the economy. Nor is it the express aim of GOP, by running a budget deficit, to increase the price level in the economy.

However, the variable of change in energy prices, is different from these other major contributors to inflation, depreciation, and budget deficits. In the variable of change in energy prices, GOP is seen to raise these energy prices, as stated policy.

Granted, some of these increases in energy prices, may be necessary to cover rising producer costs. However, our estimates for this report show, that a much larger part of the increase in energy prices, is based on increased taxation.

So, GOP policy, to a surprising extent, based on reducing revenue shortfalls through increased energy taxation, is inflationary.

This report seeks to quantify the increase in consumer price, of six main sources of energy. And decompose this increase, into the share of increase in producer prices, and the share of increase in taxation.

The six main sources of energy, whose consumer prices have increased, over the past 15 months, from July 2022 to October 2023 are:

Petrol,  
Kerosene,  
High speed diesel (HSD),  
Electricity,  
Coal, and  
Natural gas.

This increase in energy prices for the end consumer, be they households, or firms, will have two effects.

One the increase in energy prices for consumers will raise the cost of living, contributing directly to inflation.

Two, the increase in energy prices for firms, whether employers, or sole producers, of goods and services, will raise their costs of production. Giving a secondary, multiplier effect on inflation, to the extent that these increases in costs of production are passed through into higher prices of the goods and services produced.

This report estimates just the first direct effect of increase in energy prices, on inflation, leaving estimation of the secondary, multiplier effect on inflation, to follow.

### *Derivation of increase in energy prices*

Table 6 estimates the change in consumer prices, for the six main sources of energy, for which data was publicly available. This is the change in nominal price per unit of energy, for the consumer. Since the unit price varies by level of consumption, an average price has been taken.

**Table 6: Increase in Energy Prices**  
(unweighted % change) (July 2022 to Oct 2023)

	$\Delta$ Supplier Price	$\Delta$ Taxation	$\Delta$ Consumer Price
<b>Petrol</b>	10.32%	500%	<b>30%</b>
<b>Kerosene</b>	4.08%	-17.58%	<b>3.05%</b>
<b>HSD</b>	-7.97%	89.69%	<b>10%</b>
<b>Electricity</b>	52.84%	44.41%	<b>49.14%</b>
<b>Coal</b>	0.00%	64.69%	<b>0.80%</b>
<b>Natural Gas</b>	79%	176.51%	<b>117%</b>
<b>Unweighted Average</b>	<b>23%</b>	<b>143%</b>	<b>35%</b>

Source: Lahore School Modeling Lab estimates, 2023

Note: The price increase for each category is given for the change during the time period between  $t_0$  and  $t_1$ ,  $t_0$  being July 2022 and  $t_1$  being Oct, 2023, except for Natural gas where  $t_0$  is Jan, 2023 and  $t_1$  is Oct, 2023.

So, for example, the average price of electricity per unit, has gone up, between July 2022 and October 2023, by 49%. This increase in the nominal price of energy per unit, for the consumer, is based on two sources of increase. An increase in the nominal price charged by the supplier and an increase in the nominal rupee value of the tax, charged by GOP.

So, the table shows that the price of petrol, for consumers, went up by 30%, over the past 15 months. The supplier price went up by just 10%. While GOP's tax went up by 500%.

The price of kerosene went up by 3% over the past 15 months. All this increase was entirely based on an increase in the suppliers' price by 4%. While GOP's tax went down by 17%.

The price of High-Speed Diesel (HSD) went up by 10% over these past 15 months. For which the supplier price went down by 8%. While GOP's tax went up by 90%.

The price of electricity went up by 49% over these past 15 months, as noted. Here the supplier price went up by 53%. With GOP's tax going up by 44%.

The price of coal has gone up by just 1% over the past 15 months. With the supplier price remaining constant. But with GOP's tax rising by 65%.

Finally, the price of natural gas has risen by 117% over these past 15 months. The supplier's price has increased by 79%. While GOP's tax has increased by 176.51%.

In terms of pure nominal price charged to the consumer, the average price across these six sources of energy has gone up by 35%. GOP's tax has increased on average by 143%, over the past 15 months. While supplier prices have increased on average by just 23% over this period.

While GOP is sovereign in its decision to raise revenues, to plug its deficits, from both ad valorem taxes on goods, and income taxes. However, it must be noted that these ad valorem taxes are estimated here to raise consumer prices significantly. And far more than suppliers' prices. Ad valorem taxes are also regressive, in the case of energy sources like petrol and high-speed diesel, where low end consumers cannot be protected.

### *Derivation of weighted increases in energy prices to determine their impact on inflation*

Nominal price increases in the six main sources of energy hit the consumer and therefore inflation, directly. But consumer's reliance on these energy sources varies. Therefore, the impact of these nominal price increases in energy, are weighted by this incidence of reliance to give weighted price increases for these six main sources of energy, to determine their proportionate impact on inflation.

Further, energy constitutes only part of the consumer's basket of goods, to give the Consumer Price Index, to estimate inflation. This coefficient of the energy share is applied to the weighted price increases, to determine the energy impact on inflation of 4.2% (See Table 5).

The weighted increase in energy prices, for the consumer, are given in Table 7. And they are decomposed into the share of this increase in the suppliers' price, and the share of this increase in GOP's tax.

**Table 7: Increase in Energy Prices**  
(weighted % change) (July 2022 to Oct 2023)

	$\Delta$ Supplier Price	$\Delta$ Taxation	$\Delta$ Consumer Price
<b>Petrol</b>	0.83%	1.68%	2.51%
<b>Kerosene</b>	0.04%	-0.01%	0.03%
<b>HSD</b>	-0.69%	1.70%	1.02%
<b>Electricity</b>	5.04%	3.31%	8.35%
<b>Coal</b>	0.00%	0.15%	0.15%
<b>Natural Gas</b>	14.89%	21.37%	36.26%
<b>Weighted Average</b>	<b>3.35%</b>	<b>4.70%</b>	<b>8.05%</b>

These weighted energy equations show that petrol increased its consumer price by 2.5% over this period from July 2022 to October 2023. This weighted increase in consumer price, of 2.5%, comprised a smaller share of suppliers' price, of 0.8 percentage points and a double share of GOP's tax of 1.7 percentage points.

Kerosene barely shows an increase in its weighted consumer price, of 0.03%.

Coal too, barely shows an increase in its weighted consumer price, of 0.2%. But this increase of 0.2% in coal's weighted consumer price, is entirely due to an increase in GOP's tax.

High Speed Diesel (HSD) shows an increase in its weighted consumer price, by 1%. And this entire increase in this consumer weighted price for HSD, is accounted for by an increase in GOP's tax.

The largest increase in weighted consumer price, comes in for natural gas, at 36%. 15 percentage points of this increase in the weighted consumer price, come from an increase in the suppliers' price. 21 percentage points of this increase, come from an increase in GOP's tax.

Taking a weighted average across all six energy sources, shows that energy prices for the consumer rose by 8%, between July 2022 and October 2023. 3.4 percentage points of this increase come from supplier's price increases. While 4.7 percentage points of this increase come from an increase in GOP's tax.

So, of the total weighted average increase in energy prices, of 8%, in the last 15 months, some 40 percentage points are due to an increase in suppliers' prices. And a predominant near 60 percentage points are due to increases in GOP's tax.

In sum, GOP's revenue raising efforts, while much needed to cover a yawning fiscal deficit, in their focus on ad valorem taxation, have been inflationary. And regressive in the case of petrol, which has a uniform tariff. But they have not been regressive for natural gas, and electricity, where the tariffs are progressive with use.

## **GOP's Economic Policy challenges over FY 2024**

Our estimated growth of GDP of just 2.7% for FY 2024, has been based on the first quarter's (Q1) observed values. Our estimation of inflation for the past 15 months, from July 2022 to October 2023, brings in inflation at just under 30%.

These are the twin challenges facing GOP over FY 2024. Generation of growth in GDP. And cutting inflation.

### **Growth policy**

What explains the weak recovery in GDP growth, from the flatline over FY2 023, is strong evidence of hysteresis. Of the continuation of the import constraint, from FY 2023 to FY 2024. The economy is highly import dependent, especially large-scale manufacturing, as FY 2022 shows. A high growth rate of GDP verging on 6% over FY 2022, required import levels of \$90 billion. Over FY 2023 these import levels dropped to \$67 billion. Over FY 2024 this import constraint still appears to bite. Prior to the import constraint, in FY 2022, the level of imports required per month topped \$7 billion. Over FY 2023 this import level dropped down to \$5.5 billion per month. Over the first quarter (Q1) of FY 2024 this import level has persisted at \$5.5 billion per month.

The import constraint has continued from FY 2023 to FY 2024, because its causal factors have also continued from FY 2023 to FY 2024. These have been observed to be, a persistent deficit in the current account (CA), a rapidly depreciating exchange rate, and weak reserves of foreign exchange. All three causal factors, make it more difficult to pay a high import bill, which is needed for higher GDP growth.

So, GOP's first policy challenge, to raise GDP growth, has to be, to break the hysteresis that appears to have become embedded in the economy since FY 2023, persisting into FY 2024.

The crisis for the economy is largely a current account (CA) crisis. GOP's agreement with the IMF for the short-term SLA loan of \$3 billion, can only be a palliative at best. 23 agreements with recourse to IMF loans, only serve to sharpen this policy lesson, that the economy's main vulnerability is on its current account (CA). No domestic restructuring of the economy will fix the current account (CA). Only restructuring the current account will fix the current account.

### **Inflation policy**

High inflation too appears to have become embedded in the economy, over FY 2023 and as observed in the first quarter (Q1) of the FY 2024. Inflation has raged, approximating 30%.

The three main causal factors for such high inflation, estimated by our model, are rapid depreciation of the exchange rate, a large budgetary deficit, and an increase in energy prices.

GOP policy, in allowing a depreciation of the exchange rate, or running a high budget deficit, does not have the objective of raising consumer prices. It is an inadvertent result.

However, GOP policy, in raising energy prices, does have the objective of raising consumer prices. Further, the report estimates that near two thirds of the increase in the prices of the six main sources of energy, are not to recoup an increase in suppliers' prices. But to raise GOP's tax.

This report has only estimated the direct effect of an increase in energy prices, on inflation, of 4.2%. However, since energy is a major cost of production in goods and services, this secondary effect, in raising the prices of goods and services, is bound to raise the aggregated effects, of this increase in energy prices on inflation, well above the 4.2% estimated so far. So, the raising of domestic energy prices, may well become the second major factor causing inflation.

Here, GOP policy must be prudent. GOP needs to reduce its budget deficit, by raising taxes. But raising ad valorem taxes, on energy are very inflationary, as observed in this report. Raising income taxes will not be inflationary. They will also be more progressive, which ad valorem taxes cannot be on some sources of energy, like petrol.

The experience of global inflation, especially in the advanced economies, also shows it to be strongly linked to energy prices in the post covid era. Coming down as energy prices climb back down. Another salutary reinforcement, of the need for prudence in GOP's energy pricing policy.





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