



Short-term impact of General Elections on the markets and economic indicators

It is difficult to find a strong connection between them

The countdown begins in earnest: India prepares to hold its 18th Lok Sabha elections in Apr-May'24. General elections are assumed to have wide-ranging consequences, affecting not only the political and economic landscape but also the financial markets. In this note, we focus on the short-term impact of general elections on four broad parameters: 1) financial markets, 2) monetary variables, 3) fiscal parameters, and 4) indicators related to the rural economy. For most of our analysis, we consider data from the past five elections (i.e., 1999, 2004, 2009, 2014 and 2019) and analyze the changes in these indicators pre- and post-elections, i.e., six months before and after the election results. Overall, the benchmark large-cap equity market index (Nifty50) has increased both before and after the elections, with lower 10-year bond yield during most election periods and no uniform trends in the currency. Further, we find it difficult to establish any uniform patterns in monetary or fiscal variables visà-vis election years. Within the rural sector indicators, MSP hikes tend to be higher in the year before elections, but other indicators do not show any connection.

Impact on financial markets before and after elections:

- What are the typical behaviors of different financial markets before and after election results are announced? In this section, we provide answers using data on the equity market (Nifty-50 index), 10-yr bond yield, Indian Rupee vs. US Dollar (INR/USD), and foreign portfolio investment (FPI) flows. Broadly speaking, equity markets (and FPI equity flows) appear to grow in the six-month period before and after results, with lower yields in the majority of election periods and stronger/weaker INR/USD in the pre-/post-result periods during the last two elections.
- An analysis of the past five general elections suggests that the stock market (using point-to-point data) has exhibited higher returns in the run-up to elections, and while there are immediate fluctuations post-election results, the equity market totally absorbs them over time (Exhibit 1). Nifty-50, a benchmark index of India's large-cap listed companies, has grown between 7% and 36% in the run-up (i.e., six months prior) to general elections since 1999, with an average growth of 21% during the last five elections. In the quarter following the election results, markets fell twice (in 2004 and 2019); however, they moved into the growth territory within the subsequent quarter (i.e., six months after the election results), with an average growth of 14% during the past five elections. The trends are broadly similar for the mid-cap and small-cap indices as well.
- A similar analysis for the benchmark 10-year government bond yield reveals that the yield fell four times in the last five pre-election periods (except in 2004), with an average decline of 40bp (one bp is one-hundredth of a percentage point pp). Unlike the Nifty-50, the movements in the post-result period gain strength over time but do not change direction. For instance, the bond yield fell in three of the past five post-result periods (except in 2004 and 2009). The fall in yields in 1999, 2014 and 2019 in the month following the results exacerbated in three and six months after the results. Similarly, the 10-year yield rose in the month immediately post-results in 2004 and 2009, which increased further in the following three-month and six-month periods (Exhibit 2).
- An analysis of the movements in <u>INR/USD</u> reveals that INR weakened in the pre-election period in 1999; it was broadly stable in 2004 and 2009; while it strengthened in 2014 and 2019 (Exhibit 3). Interestingly though, the INR appeared to strengthen against the USD in the month post-elections every time, except in 2014. Over the next few months (i.e., six months post-results), however, INR strengthened against the USD in 2004 and 2009, while it weakened in 2014 and 2019 (when it had strengthened in the pre-election period). The only uniformity, thus, happens to be that the pre- and post-result movements in the INR/USD are opposite to each other, as confirmed by the past four general elections.
- In line with the trends seen in equity markets, the <u>FPI equity inflows</u> have also been positive during the past five pre- and post-election periods (*Exhibit 4*). Notably, FPI equity inflows in the post-result six-month period were only 0.2x of the pre-results six-month period in 2019, while they were as much as 8.4x in 2009 (which suffered due to 2008 great financial crisis). Interestingly, the pre-election FPI equity inflows were ~USD10b each in 2014 and 2019, albeit they were notably lower in the post-result period in 2019 (only USD2.4b), compared to 2014 (only USD8.9b). The conclusions are not very different for total (equity + debt) FPI flows (*Exhibit 5*).

Nikhil Gupta – Research Analyst (Nikhil.Gupta@MotilalOswal.com)

Tanisha Ladha— Research Analyst (Tanisha.ladha@motilaloswal.com)



Impact on monetary variables before and after elections:

- How do the monetary variables react during election periods? Instead of looking at the policy interest rates, we look at four other indicators to answer this question: currency with public (CwP), broad money supply (M3), bank credit growth, and the banking sector's liquidity (via liquidity adjustment facility LAF window).
- Does the "currency with public" (CwP) witness a sudden increase in the run-up to elections? The logic behind asking this question is very straightforward. It is argued that the political parties announce freebies and may indulge in cash distribution to entice voters before the elections. If so, CwP would rise in the run-up to the general elections. However, we do not find any evidence to support this argument. Historical data suggest that the growth in CwP improved slightly in the months before elections only twice (1998-99 and 2003-04) of the last five elections. Even if we exclude 2018-19, which saw distortions due to demonetization in Nov'16, there was no pick-up in CwP a few months before the elections in either 2008-09 or 2013-14. The growth in CwP in the past few months is at the lowest in the past three decades (Exhibits 6 and 7).
- What if the politicians deposit money directly into the voters' bank accounts instead of distributing cash? The <u>M3</u> can be measured as the sum of deposits and CwP. The trends seen in M3 growth were broadly similar to those in CwP, although the latter is only a small part of M3. In four of the last five elections, there was no sudden or material surge in M3 growth, except 2003-04. It remained broadly stable in the year before the elections. M3 growth has remained very stable between 10.5% and 11.5% in the past many months as well (Exhibits 8 and 9).
- Were more loans disbursed by the banking sector in the run-up to the elections? Not really. Like CwP and M3, there is no evidence to doubt that the government uses its discretion to make banks loan out more in the run-up to the elections. There was definitely some uptick in <u>bank credit</u> growth in a few months before 1999 and 2004 elections. However, it was totally missing in 2009, 2014 and 2019. In 9MFY24, bank credit growth has remained robust and very stable at ~15% YoY (Exhibits 10 and 11).
- Lastly, we analyze the banking system's liquidity using <u>LAF balances</u> to gauge if there is any evidence of monetary easing in the run-up to the general elections (please note that LAF data is available only from 2008/FY09). An improvement in LAF balances suggests easy liquidity in the banking sector, and vice versa. Again, our findings suggest that there is no visible pattern of improved LAF balances (i.e., monetary easing) before the last three elections (*Exhibit 12*). This is not surprising considering that we did not find any connection between various monetary variables in the run-up to general elections.
- Overall, we do not find any connections between various monetary variables and general elections. Neither has the nation seen a sudden splurge in cash distribution before the elections, nor has there been a rise in M3 (or deposits) in the run-up to the general elections and nor has there been an uptick in bank credit growth. Further, banking system liquidity also does not show any unusual trends around elections, thus entirely refuting the idea of any impact of elections on these variables.

Impact on fiscal indicators before and after elections:

- There is a general belief that the incumbent government tends to use populist measures before elections to counter antiincumbency and lift economic sentiments. To validate this hypothesis, we look at the deviation of the actual fiscal deficit
 vis-à-vis budget estimates (BEs) for the year before and after elections (i.e. FY19 and FY20, for 2019 elections). Further, we
 also look for any exceptional surge in the growth in revenue spending, or subsidies or reduction in capital spending, to
 gauge if the fiscal expansions during elections is a usual occurrence. Our conclusion is very simple and in contrast to the
 general belief. We do not find any uniform patterns in the fiscal indicators before or after the general elections (including
 Interim Budgets).
- During the past five elections, the actual <u>fiscal deficit</u> was lower than BEs in two years (FY04 and FY14), higher than BEs twice (FY99 and FY09) and broadly in line with BEs once in FY19. In fact, between FY13 and FY23, barring the pandemic years (i.e., FY20 and FY21), the actual fiscal deficit of the Union Government has been broadly in line with the BEs (Exhibits 13 and 14). As a % of GDP, the Government of India (GoI) has missed its deficit targets only four times in the past two decades FY09, FY12, FY20 and FY21. The GoI missed its targets in all the years prior to FY04 (Exhibit 15).
- Further, it is equally difficult to connect election years with higher revenue spending and/or subsidies. In three of the last five election years, including the recent two, the average growth in revenue spending was 8%, with an exceptional growth of 20%/33.5% in FY99/FY09 (Exhibit 16). Similarly, barring FY99 and FY09, there was no growth in subsidies in the remaining three election years (Exhibit 17). Moreover, revenue spending in three of the last four elections was actually lower than BEs (Exhibit 18), with subsidies being lower than budgeted in the last two election years, i.e., FY14 and FY19.



- One may argue that the Government of India (GoI) may announce some new populist measures during the interim budgets before the elections, which would reflect in the following years (i.e., FY00, FY05, FY10, FY15, and FY20), rather than the election years (please see Exhibit 16 again). Well, the average growth in revenue spending and subsidies during these five years was 12% and 7%, respectively, which does not qualify as exceptionally high, especially considering the fact that FY20 was hit by the pandemic (with 17-18% growth each in revenue spending and subsidies).
- Does the government cut <u>capex</u> during election periods? It is more sensible to look at the pre-election years to answer this question. The average growth in Gol's total capital spending (including loans & advances) in the last five pre-election years (i.e., FY99, FY04, FY09, FY14 and FY19) was 15% (and 13% excluding FY99), and it was substantially higher/lower than BEs only in FY04/FY14, as well as broadly in line with BEs in FY09 and FY19 (Exhibits 19 and 20). During the last four election years (i.e., FY05, FY10, FY15 and FY20), the average growth in Gol's capital spending was 11%, not much different from what it was in the pre-election years.
- Lastly, is there a sudden rise in <u>rural spending</u> by the Gol during election periods? Similar to what we discussed above, barring FY99 and FY09, the average growth in rural spending (including the Ministry of Agriculture and Farmers' Welfare, Department of Fertilizers, Department of Drinking Water and Sanitation, Ministry of Panchayati Raj, and Ministry of Rural Development) was 4.4% in the pre-election years (i.e., FY04, FY14, and FY19). The growth was less than 10% each in FY00, FY05, and FY15 in the post-election year; declined in FY10 (due to base effect in FY09) but jumped to 26.6% (partly due to the announcement of PM-KISAN scheme) in FY20 (Exhibit 21).
- Overall, there is no sudden surge in any of the fiscal parameters, which suggests that the Gol does not give in to the temptation of populist measures around general elections. FY09 was certainly an exceptional year, which included various schemes (such as the implementation of the 6th Pay Commission, and expansion of MGNREGA to the entire rural India); however, it was also the GFC period. Similarly, we know that new populist schemes were announced during the last interim Budget in 2019, just before the elections. However, neither FY04 nor FY14 saw any major policies. There were no such populist schemes in 2023-24 Budget as well; however, the possibility of some announcements during the interim budget in Feb'24 cannot be ruled out.

Impact on rural sector indicators before and after elections:

- There is another belief that the GoI tends to do something special for the rural sector to entice them during the voting season. Although we did not find any uniform pattern in rural spending, there are other measures that can be taken to support the rural sector. We look at the trends in three such indicators minimum support prices (MSPs), MGNREGA spending, and food inflation to gauge if GoI provides an extra support to the rural sector during election periods.
- There are two agricultural seasons in India kharif (summer) and rabi (winter). Both seasons account for roughly half of total food grain production in the country, with the kharif season being dedicated to rice and coarse cereals, while wheat and pulses production dominates the rabi season. However, as far as MSP-crops are concerned, the kharif season accounts for ~60% of the total production. Minimum support prices (MSPs) is one indicator, which shows higher growth in the pre-election years (Exhibits 22 and 23). This is true for FY24 as well, when the production-weighted MSP hike was 7.7% (including kharif and rabi crops), the highest in five years.
- Despite the fact that the National Rural Employment Guarantee Act (NREGA), 2005 is a demand-driven program, it is widely believed that the government tends to increase expenditure under this program during election years. NREGA was implemented on the national level (for rural areas) only in 2009, before it was operational in only selected areas. It is no surprise then that NREGA spending was revised to INR300b in FY09 from INR144b. However, in FY14 and FY19, there were no such substantial differences between the actual spending and BEs (Exhibit 24). Notably, though the actual NREGA expenditure has been higher than BEs each year since FY16 (including FY24), it reflects the inability of the GoI to forecast its demand accurately.
- Food items account for ~40% of India's CPI (consumer price index) basket. Higher <u>food inflation</u> is definitely not good for consumers and thus, the economy. However, food prices are the realization for its producers, namely the farmers. It is then possible to boost the farm sector by pushing up food prices or inflation. During the past five elections, food inflation (from CPI for rural laborers) was in double-digits in FY99, FY09, and FY14, but only 2-4% in FY04 and FY19. Thus, there is no uniform trend (Exhibit 25). In fact, higher inflation is seen as one of the factors that led to the fall of the government in 2014. So, it would be surprising if higher food inflation were used as a strategy to support the rural economy.
- Overall, except in MSPs, there is no uniformity in NREGA spending or food inflation during election years. Since NREGA is
 a demand-driven program, the GoI has little control over it, and higher food inflation may do more harm for the
 incumbent government. The MSP hike in FY24 was the highest in five years; NREGA expenditure will also be much higher



Source: RBI, CEIC, MOFSL

than the BEs this year and food inflation will also remain high (6.5-7.0%). However, it would be unfair to conclude that the GoI has helped to achieve them in order to entice the voters, especially when the rural spending of the GoI declined 3% YoY in Apr-Nov'23.

In sum, it is challenging to establish a strong connection between general elections and economic indicators. Despite our beliefs, we failed to find any uniformity in currency with public (or M3), fiscal indicators, and Gol's rural spending (including NREGA expenditure) leading up to the general elections. However, this does not rule out the announcement of populist measures in the Interim Budget 2024-25, which is set to be presented on 1st Feb '24.

Exhibit 1: Benchmark large-cap equity market index tends to rise before and after election results

Election result dates	Nifty-50 performance (%)						
	Pre-election			Post-election			
	6-month	3-month	1-month	1-month	3-month	6-month	
06-Oct-99	36.3	11.0	-0.9	-1.0	15.8	5.4	
13-May-04	6.7	-9.2	-6.9	-11.8	-6.1	9.3	
16-May-09	30.6	28.9	5.4	22.1	24.7	37.8	
16-May-14	17.6	17.8	5.8	5.8	9.4	17.8	
23-May-19	11.5	8.8	1.2	-0.1	-8.5	1.5	
Simple average	20.5	11.4	0.9	3.0	7.1	14.4	

Pre-election Nifty-50 performance is calculated using the point-to-point index until the end of day before result date; Election result end-day index is the starting point for calculating post-election Nifty-50 performance

Source: India Stock exchanges (BSE/NSE), CEIC, MOFSL

Exhibit 2: The 10-year bond yield has mostly fallen during election periods

Election result dates	Change in 10-year bond yield (bp)						
	Pre-election			Post-election			
	6-month	3-month	1-month	1-month	3-month	6-month	
06-Oct-99	-0.42	-0.26	-0.05	-0.09	-0.35	-1.19	
13-May-04	0.12	-0.09	0.11	0.14	1.45	2.05	
16-May-09	-1.05	0.38	-0.24	0.47	0.69	0.90	
16-May-14	-0.23	-0.02	-0.17	-0.14	-0.27	-0.57	
23-May-19	-0.45	-0.16	-0.22	-0.40	-0.70	-0.76	
Simple average	-0.41	-0.03	-0.11	0.00	0.17	0.09	

Pre-election Nifty50 performance is calculated using the point-to-point index until the end of day before result date; Election result end-day index is the starting point for calculating post-election Nifty50 performance

Source: RBI, CEIC, MOFSL

Exhibit 3: INR has strengthened/weakened in the pre-election period with opposite reaction post-results

Election result dates	INR/USD performance (%)						
	Pre-election			Post-election			
	6-month	3-month	1-month	1-month	3-month	6-month	
06-Oct-99	2.7	0.7	0.3	-0.4	-0.2	0.1	
13-May-04	0.2	0.4	4.1	-0.7	1.8	-0.5	
16-May-09	0.2	1.7	-0.7	-3.2	-2.6	-7.0	
16-May-14	-5.7	-4.5	-1.3	0.9	2.7	3.7	
23-May-19	-2.0	-2.0	0.0	-0.2	2.8	3.0	
Simple average	-0.9	-0.7	0.5	-0.7	0.9	-0.1	

Pre-election Nifty50 performance is calculated using the point-to-point index until the end of day before result date; Election result end-day index is the starting point for calculating post-election Nifty50 performance

A rise (fall) represents INR depreciation (appreciation) vis-à-vis USD

Exhibit 4: FPI equity flows have been positive before and after elections...

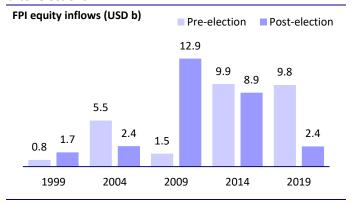
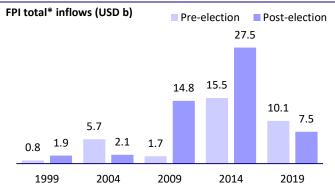


Exhibit 5: ...and the same was the case with total FPI flows (including debt)



* Debt + equity flows

Source: Various national sources, RBI, CSO, CEIC, MOFSL

Exhibit 6: Long-term trends in CwP

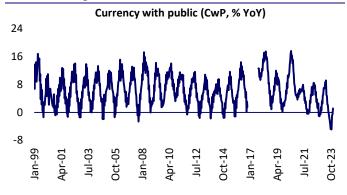
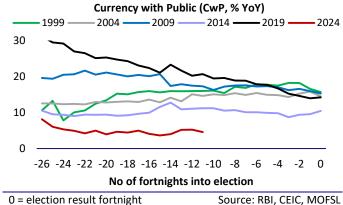
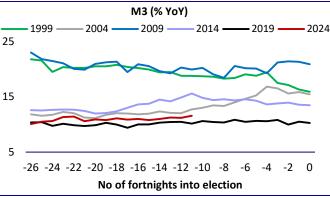


Exhibit 7: Changes in CwP in the run-up to the elections



0 = election result fortnight

Exhibit 9: Changes in M3 in the run-up to the elections

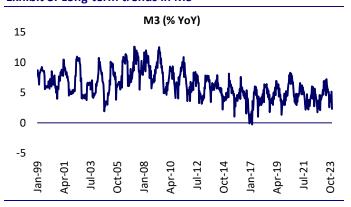


0 = election result fortnight

Source: RBI, CEIC, MOFSL

5

Exhibit 8: Long-term trends in M3



10 January 2024



Exhibit 10: Long-term trends in banks' credit to the commercial sector

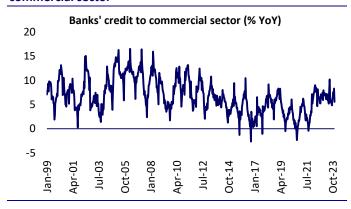
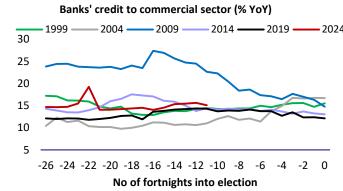


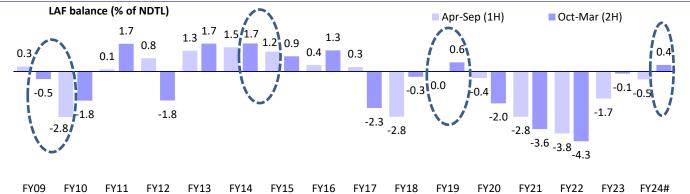
Exhibit 11: Changes in banks' credit in the run-up to the elections



0 = election result fortnight

Source: RBI, CEIC, MOFSL

Exhibit 12: No evidence of monetary easing during elections using LAF balances

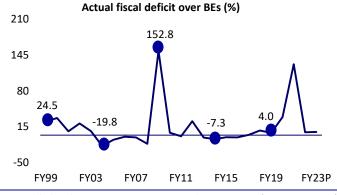


Highlighted portion represents pre- and post-election period (2HFY09 and 1HFY10, respectively for 2009 election)

Source: RBI, CEIC, MOFSL

Data up to Dec'23

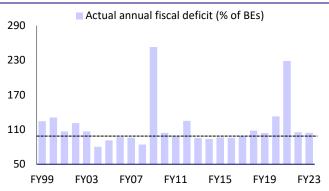
Exhibit 13: Actual Gol's fiscal deficit has been higher only twice in the last five elections



Highlighted portions represent pre-election years (FY99, FY04 etc)

Provisional data for FY23

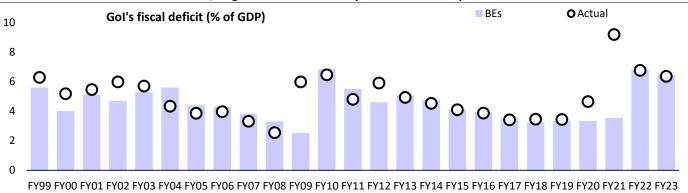
Exhibit 14: Actual fiscal deficit was 104% of BEs in FY19, and <100% in FY04 and FY14



Source: Union Budget documents, Controller General of accounts (CGA), CEIC, MOFSL



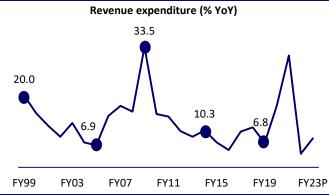
Exhibit 15: Fiscal deficit has missed BEs/targets as a % of GDP only four times in the past two decades



Data for FY23 is provisional

Source: Union Budget documents, CGA, CEIC, MOFSL

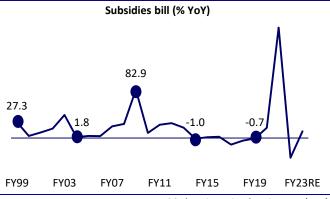
Exhibit 16: Revenue spending growth in FY04, FY14, and FY19 averaged only 8%...



Highlighted portions represent pre-election years (FY99, FY04 etc)

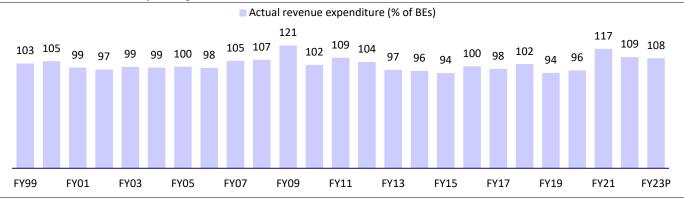
Data for FY23 is provisional

Exhibit 17: ...and there was no growth in subsidy bills during those three election years



FY23 data is revised estimates (REs) Source: CGA, Union Budget documents, CEIC, MOFSL

Exhibit 18: Actual revenue spending was lower than BEs in FY04, FY14, and FY19



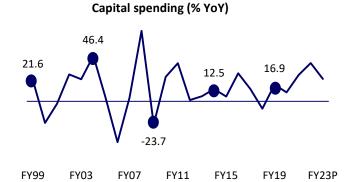
Data for FY23 is provisional

Source: Union Budget documents, CGA, CEIC, MOFSL

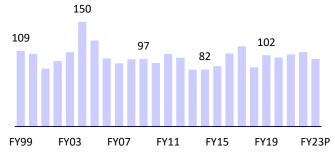


Exhibit 19: Gol's capital spending average growth was 15% before election years (13% excluding FY99)...

Exhibit 20: ...and it was substantially higher/lower than BEs only in FY04/FY14



Actual capital expenditure (% of BEs)

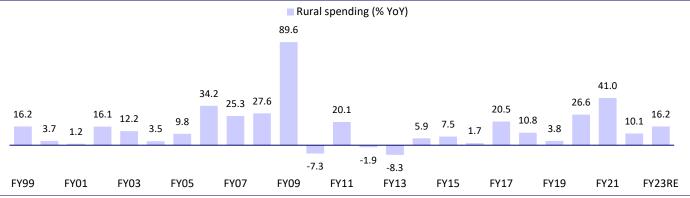


Source: CGA, Union Budget documents, CEIC, MOFSL

Highlighted portions represent pre-election years (FY99, FY04 etc)

Data for FY23 is provisional

Exhibit 21: Rural spending growth was muted in the pre- and post-election periods in FY04, FY14, and FY19



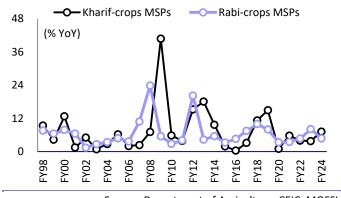
Rural spending includes expenditure of five ministries/departments – 1) Ministry of agriculture and farmers' welfare, 2) department of fertilizers, 3) department of drinking water and sanitation, 4) ministry of panchayati Raj, and 5) ministry of rural development Data for FY23 is provisional

Source: Union Budget documents, CGA, CEIC, MOFSL

Exhibit 22: MSP hikes, especially for kharif crops, tend to be higher in the year before general elections...

Exhibit 23: ...which appears to have continued in FY24 as well

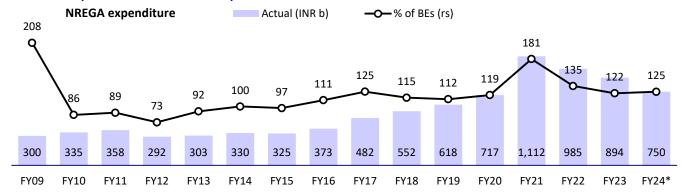
Production-weighted MSPs (% YoY)



For all crops (kharif and rabi season combined)
Highlighted portions represent pre-election years (FY99, FY04 etc)

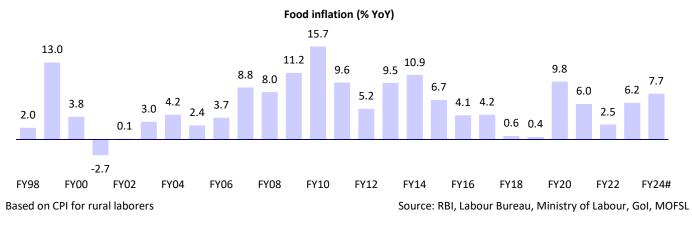
Source: Department of Agriculture, CEIC, MOFSL

Exhibit 24: Comparison of BEs vs. actual expenditure on NREGA



^{*} Data for FY24 includes INR150b demanded under the first supplementary Budget presented in Dec'23, over BEs of INR600b Source: Union Budget documents, CGA, CEIC, MOFSL

Exhibit 25: Long-term trends in CPI-food inflation



Investment in securities market are subject to market risks. Read all the related documents carefully before investing



NOTES

10 January 2024



Explanation of Investment Rating				
Investment Rating	Expected return (over 12-month)			
BUY	>=15%			
SELL	<-10%			
NEUTRAL	> - 10 % to 15%			
UNDER REVIEW	Rating may undergo a change			
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation			

*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

Disclosures

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motial Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Depository participant services & distribution of various financial products. MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Ltd. (NSE) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL),NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Ltd. are available on the website at https://onlinereports.motilaloswal.com/Dormant/documents/Associate%20Details.pdf

Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx

MOFSL, it's associates, Research Analyst or their relatives may have any financial interest in the subject company. MOFSL and/or its associates and/or Research Analyst or their relatives may have actual beneficial ownership of 1% or more securities in the subject company at the end of the month immediately preceding the date of publication of the Research Report or date of the public appearance. MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may have any other potential conflict of interests at the time of publication of the research report or at the time of public appearance, however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.

In the past 12 months, MOFSL or any of its associates may have:

- a) received any compensation/other benefits from the subject company of this report
- b) managed or co-managed public offering of securities from subject company of this research report,
- c) received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
- d) received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
- MOFSL and it's associates have not received any compensation or other benefits from the subject company or third party in connection with the research report.
- . Subject Company may have been a client of MOFSL or its associates during twelve months preceding the date of distribution of the research report.
- Research Analyst may have served as director/officer/employee in the subject company.
- MOFSL and research analyst may engage in market making activity for the subject company.

MOFSL and its associate company(ies), and Research Analyst and their relatives from time to time may have:

a) a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein.

(b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.

Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, it does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures. To enhance transparency, MOFSL has incorporated a Disclosure of Interest Statement in this document. This should, however, not be treated as endorsement of the views expressed in the report. MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report.

Terms & Conditions

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Disclosure of Interest Statement	Companies where there is interest	
Analyst ownership of the stock	No	

A graph of daily closing prices of securities is available at www.nseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to subject company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Financial Services Limited (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.



For U.S.

MOTILAL Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co.Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore,

as per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisors Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays. This report is meant for the clients of Motilal Oswal only.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 - 71934200 / 71934263; www.motilaloswal.com.

Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 71881000. Details of Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No::022-40548085.

Grievance Redressal Cell

CHOTAINO FIGUROUM COM				
Contact Person	Contact No.	Email ID		
Ms. Hemangi Date	022 40548000 / 022 67490600	query@motilaloswal.com		
Ms. Kumud Upadhyay	022 40548082	servicehead@motilaloswal.com		
Mr. Ajay Menon	022 40548083	am@motilaloswal.com		

Registration details of group entities.: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412 . AMFI: ARN .: 146822. IRDA Corporate Agent – CA0579. Motilal Oswal Financial Services Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Insurance, Bond, NCDs and IPO products.

Customer having any query/feedback/ clarification may write to query@motilaloswal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilaloswal.com, for DP to dpgrievances@motilaloswal.com.