Asia in Focus

India's Fiscal policy: Union Budget Preview: Beyond the numbers

- There is a growing expectation among some investors that India's final union budget for FY25 will see some relaxation in the fiscal consolidation path and a pivot towards welfare spending from capex. We push back against both views: a) there is limited fiscal space in our view to stimulate the economy given high public debt, b) India's infrastructure upgrades have created long-term positive growth spillovers which policymakers may not be willing to give up.
- We expect the general government to stick to the announced fiscal deficit target of 5.1% of GDP for FY25 (or even slightly lower) and announce further consolidation to a deficit of below 4.5% of GDP by FY26. Even if we see some expenditure allocation towards welfare spending, it may not require a reduction in capex given the higher than expected <u>dividend transfer</u> from the RBI.
- In the general government's budget, interest expense constitutes a large share at 5.4% of GDP and with the primary deficit at 3.5% of GDP in FY24, this leaves the general government with limited fiscal space for stimulus in FY25, in our view. Our fiscal impulse calculations also show that general government fiscal policy has been a drag on growth since FY22 and will remain so in FY25 and FY26 given the fiscal consolidation target of the central government.
- The central government's fiscal impulse breakdown suggests that the very robust capex CAGR of ~31% over FY21-24 resulted in a growth boost, while welfare spending has been a net drag since FY22. In FY25, we expect capex to provide a positive impulse, while welfare spending will likely remain a drag.
- We think this budget will go beyond just fiscal numbers, and likely make an overarching statement about long-term economic policy of the government towards 2047 (100 years of Indian independence). We see an emphasis on job creation through labor-intensive manufacturing, credit for MSMEs, continued focus on services exports by expanding GCCs, and a thrust on domestic food supply chain and inventory management to control price volatility. The budget is also likely to lay out a path for the future of public finance in India, entailing: a) a roadmap for **public debt sustainability**, and b) green finance: the role of public finance in balancing India's energy security vs. transition needs.

Santanu Sengupta +91(22)6616-9042 | santanu.sengupta@gs.com Goldman Sachs India SPL

Arjun Varma

+91(22)6616-9043 | arjun.varma@gs.com Goldman Sachs India SPL

Andrew Tilton +852-2978-1802 | andrew.tilton@gs.com Goldman Sachs (Asia) L.L.C.

A budget beyond numbers

The central government will announce the final union budget for FY25 (March 2024 - April 2025) on July 23. Given that this comes after the below (exit-poll) expectation results of the national elections for the ruling BJP, there is growing expectation among equity investors that this budget will see some relaxation in the fiscal consolidation path and a pivot towards welfare spending from capex.

We push back against the former view given that India has limited fiscal space available, in our view, to stimulate the aggregate economy given public debt constraints. And we think the latter is unlikely as India's infrastructure upgrades over the last few years have created long-term positive spillovers which policymakers may not be willing to give up.

The government turned to capex during the pandemic as a means to buoy the economy out of the recession. Even as it consolidated the headline fiscal deficit from FY21, it continued to lean heavily on capex to boost infrastructure. Government capex growth was significantly higher than nominal GDP growth during this period (CAGR of 31% over FY21-24 vs. 12% over FY16-20), though the growth rates declined over the years as fiscal consolidation constraints dominated.

The central government over the last few years has been committed to fiscal consolidation and reduced the fiscal deficit for FY24 (April 2023 – March 2024) to <u>5.6%</u> of GDP¹ from 9.2% of GDP in FY21. We expect the government to stick to the announced fiscal consolidation target of 5.1% of GDP for FY25 (or even better it slightly) and announce further consolidation to below 4.5% of GDP by FY26. Even if we see some expenditure allocation towards welfare spending, it may not require a reduction in the capex given the higher than expected <u>dividend transfer</u> from the RBI last month (<u>Exhibit 1</u>).

¹ This is 0.2% of GDP lower than the revised estimate and 0.3% of GDP lower than the budget estimate.

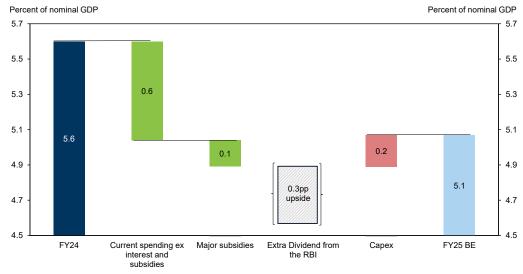


Exhibit 1: We expect the central government to meet its fiscal deficit target of 5.1% of GDP

NOTE: FY2024 runs from April 2023 to March 2024; while FY2025 runs from April 2024 to March 2025.

Source: CEIC, Goldman Sachs Global Investment Research

Central Government Fiscal Accounts (% of GDP)			
Key Budget Items	2023	2024	2025-BE
Total Receipts	9.1	9.4	9.4
Revenue Receipts	8.8	9.2	9.2
Gross Tax Revenues	11.3	11.7	11.7
Direct tax	6.1	6.5	6.7
Income Tax	3.0	3.4	3.5
Corporate Tax	3.1	3.1	3.2
Indirect Tax	5.3	5.2	5.0
GST (incl Comp cess)	3.2	3.3	3.3
Excise	1.2	1.0	1.0
Customs	0.8	0.8	0.7
Less Allocation to states	3.5	3.8	3.7
Net Tax Revenue	7.8	7.9	8.0
Non Tax Revenues	1.1	1.4	1.2
Non-debt capital receipts	0.3	0.2	0.2
Expenditure	15.6	15.0	14.5
Revenue (Current)	12.8	11.8	11.2
Interest Payments	3.4	3.6	3.6
Subsidies	2.0	1.4	1.3
Food	1.0	0.7	0.6
Fertilizer	0.9	0.6	0.5
Petroleum	0.0	0.0	0.0
Capital	2.7	3.2	3.4
Fiscal Deficit	6.4	5.6	5.1
Revenue Deficit	4.0	2.6	2.0
Primary Deficit	3.0	2.0	1.5

Exhibit 2: We expect the government to stick to its fiscal deficit target of 5.1% of GDP in FY25

Notes:

1. Fiscal year 2025 runs from Apr 24 - Mar 25. 2025-BE Budget Estimates

2. Non-tax revenues include Dividends from the RBI.

3. Revenue spending is current expenditure.

4. Non-debt capital receipts include disinvestment receipts.

Source: CEIC, Goldman Sachs Global Investment Research

The bigger picture: A long-term vision statement

We advise investors to look beyond just the fiscal numbers in this budget. We think the government will use the budget as an opportunity to make a big picture statement about the long-term economic policy vision over the next several years, rather than minor stimulus announcements. These are likely going to align with the government's <u>development agenda</u> for 2047 (coinciding with centennial of Indian independence).

There is likely to be a thrust on the following key areas among others:

a) Rural economy: A thrust on food supply chain and inventory management domestically to control price volatility. This is likely to happen through focus on rural infrastructure for better connectivity, incentivizing domestic food production, cold storage and food processing.

b) Job creation through labor-intensive manufacturing: while integrating in GVCs (possible beneficiary sectors could be textile, footwear, toys etc.).

c) Support for MSMEs in the form of credit or fiscal incentives. MSMEs in India produce ~30% of output (GVA as of FY22) and employ 120mn+ workers.

d) Skilling: To bridge the education gap, we expect workers to be skilled in a short span of time through vocational programs or on-the-job training.

e) High quality services jobs: We expect <u>continued focus on services exports</u> through expanding GCCs, GTCs and GECs.

The reforms challenge: This is the first time in the last ten years that the BJP will be running a government without a majority on its own in the Lok Sabha (the lower house of parliament). We think a reduced political mandate will require more political capital to be spent behind passing structural reforms like land reform and farm sector reforms (Exhibit 3).

Exhibit 3: We expect a focus on rural infrastructure, labor intensive manufacturing and MSMEs

Sector	Objective	What can be expected	Implementation (Likely / Unlikely)
Rural	1) Control food inflation 2) Promote employment	 Agri-infra projects: Cold storage facilities, expansion of more efficient irrigation network, grading and sorting units, food processing. Incentives to increase domestic production of edible oil, pulses, vegetables, and fruits, expand dairy co-operatives, fisheries. Reduce input costs of machinery, increase availability of seeds, allocation for price stabilisation fund for vegetables, pulses etc. 	Likely
Support for MSME	1) Socio-economic growth 2) Promote employment	 The micro loan (MUDRA) limit may be doubled up to INR 2mn. Total loans disbursed under the scheme from FY16 to FY24 is around INR 27tn Reduce compliance burden for small traders and MSMEs 	Likely
Manufacturing	1) Promote Private capex	 Continued focus on manufacturing, with emphasis on <i>labor-intensive manufacturing through fiscal incentives</i>: Global hub for toy, textile, apparel manufacturing Commercial aircraft manufacturing 	Likely
Housing	1) Promote welfare	 Housing for every poor family. Under the rural housing scheme ~26mn houses built since 2016 Slum redevelopment in major cities Reduce regulatory costs (registration), regulatory reforms enabling automatic approvals Clean drinking water for households in rural and urban areas 	Likely
Services	1) High value jobs 2) External balances stability	 Expand Global Capability Centres (GCCs), Global Technology Centres (GTCs) and Global Engineering Centres (GECs) Focus on tourism for job creation 	Likely
Social Security	1) Promote welfare	 Insurance for unorganized workers. As of FY22 around INR 109bn premium was collected and INR 167bn was paid in claims under government insurance schemes Get taxi, truck and 3-wheeler drivers under insurance schemes 	Likely
Infrastructure	1) Higher investment growth	 Continued focus on infrastructure creation, through <i>more rail network</i>. Focus on East, and North-East India Add 5000+ km of new rail tracks every year for the next few years 	Likely, but fiscal allocation may shift off-balance sheet
Reforms	1) Enhance productivity	 Progress on structural reforms like land and labor market reforms to create an enabling regulatory environment for manufacturing growth. Market linked pricing for farm produce 	Difficult to implement

Source: Goldman Sachs Global Investment Research

Does India have fiscal space for a stimulus?

The pandemic had a meaningful shift towards expansionary fiscal policy, to avert negative scarring impacts on the economy. India's general government fiscal deficit expanded to 13.3% of GDP in FY21 from 7.3% of GDP in FY20, and has contracted to 8.9% of GDP in FY24² as per RBI estimates, with primary deficit at 3.5% of GDP and interest expense at 5.4% of GDP.

- Interest expense is a large part of India's fiscal deficit, averaging around 5% of GDP over FY14-24 (Exhibit 4). It has increased from 4.8% of GDP in the pre-pandemic period (FY14-20) to 5.3% of GDP post pandemic (FY21-24) as the general government debt rose from 72% of GDP in FY14-20 to 86% of GDP in FY21-24.
- Primary deficit (headline deficit excluding interest payments) has averaged around 3.1% of GDP over the last ten years, but there is a clear divergence in the pre and post Covid trends. It significantly increased from 1.8% of GDP (average over FY14-20) to 7.9% of GDP in FY21, driven by a broad-based increase in food subsidies, welfare spending and capex, and has been consolidating since then.

How to think about fiscal stimulus?

Headline measures of fiscal deficit are usually inaccurate when assessing the **expansionary or contractionary stance** of fiscal policy as these include the effects of automatic stabilizers³ (effects of the economic cycle on fiscal parameters). In other words, the headline deficit figure includes two endogenous aspects that do not impact growth directly: the effect of the economic cycle and interest expense. Thus, to assess the stance of the fiscal policy in an economy we look at the **fiscal impulse**.

² States fiscal deficit for FY24 is as per RBI's estimates

³ Automatic stabilizers refer to ongoing government policies that automatically help stabilize the economy without any additional policy action by the government. For example during high economic growth periods, number of jobs increase, increasing incomes and tax revenues. The net impact of fiscal policy in this situation is thus contractionary without any policy action undertaken by the government.

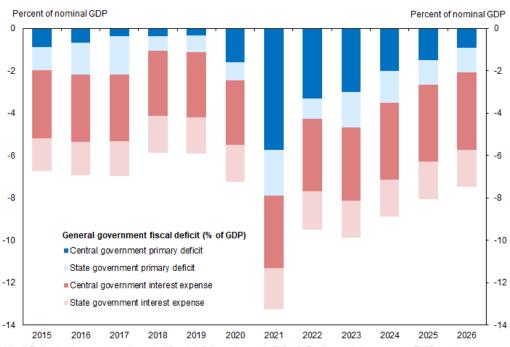


Exhibit 4: Interest expense is a large part of the general government's fiscal deficit

Note: i) Estimates here are based on actual fiscal deficit numbers upto FY24. ii) For the central government FY25 numbers are based on budget estimates and FY26 numbers are based on fiscal deficit assumption of 4.5% of GDP as per the central government's target. iii) For the state government FY25 and FY26 fiscal deficit is as per GSe of 2.9% of GDP

Source: CEIC

How much can fiscal deficit stimulate the economy?

The fiscal impulse is related to the fiscal deficit, but differs in three ways:

1) It is the **change** in the deficit rather than the **level** of deficit that matters most for growth⁴.

2) A **change** in the structural primary deficit is referred to as the "*fiscal impulse*" in the economy, and is a better measure of the stance of fiscal policy than the all-in deficit.

3) The *'fiscal impulse'* adjusts for the different impact on growth from different sources of deficit – the marginal propensity to consume or invest – and the period over which these effects occur.

This is different from the concept of a multiplier, i.e. it does not account for what is the multiplier on growth from a unit of welfare spending or capex in subsequent periods.

To analyze the contribution of fiscal policy on consumption and by an extension to GDP growth, we re-visit our fiscal impulse measure developed <u>previously</u> with some modifications (Please see Appendix (<u>Exhibit 13</u>) for more details). We compute the net fiscal impulse on the economy by aggregating the fiscal impulse from various components of expenditure and revenue items, adjusting for the impact that different expenditure categories / tax items have on growth using our assumptions on marginal propensity to consume and invest for each of the spending and tax items.

⁴ Growth itself is a measure of change rather than level.

Our fiscal impulse calculations show that **general government fiscal policy positively contributed to growth from FY20 and FY21** (after baking in scarring effects to potential growth during the pandemic) and has been a drag on growth since FY22. In our base case assumption, **it will continue to be a drag on growth in FY25 and FY26** given the consolidation target of the central government (<u>Exhibit 5</u>).

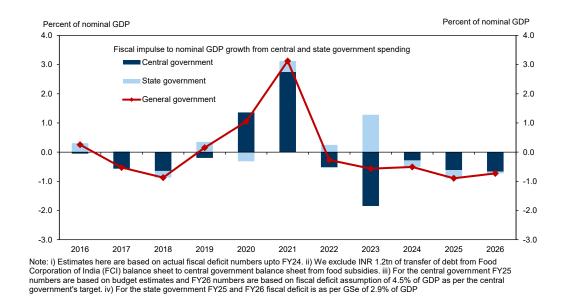


Exhibit 5: We estimate fiscal policy to be a net drag on nominal GDP growth in FY25 and FY26

Source: Goldman Sachs Global Investment Research

A breakdown of the central government's fiscal impulse by spending and tax revenue brings forward some interesting trends:

- Higher capex growth (~31% CAGR over FY21-24) has contributed positively to nominal GDP growth since FY21, i.e. the growth in capital expenditure was higher compared to the counterfactual trend growth rate, providing a positive fiscal impulse to overall growth. We expect capex to continue to provide a positive fiscal impulse in FY25 should the government meet the budget estimate.
- Welfare spending and transfer payments had a positive impulse on FY20 and FY21 growth, while subsidies were a significant additional boost to growth in FY21, at the beginning of the pandemic. These have been a net drag since FY22 (Exhibit 6).
- Tax revenues contributed positively to growth in FY20 and FY21, as the government cut corporate tax rate from 30% to 22% in FY20.
- Based on our calculations, the net impact of fiscal policy on growth would be negative in FY25 and FY26 despite the boost from capex in FY25.

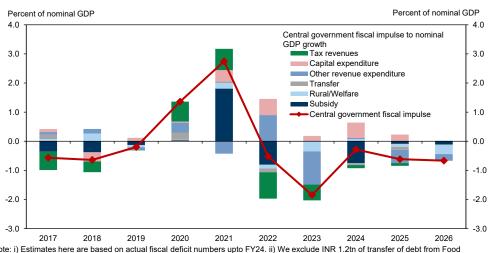


Exhibit 6: Higher capex has contributed positively to nominal GDP growth post-pandemic, while subsidies and welfare spending have been a net drag

Note: i) Estimates here are based on actual fiscal deficit numbers upto FY24. ii) We exclude INR 1.2tn of transfer of debt from Food Corporation of India (FCI) balance sheet to central government balance sheet from food subsidies. iii) FY25 numbers are based on centre's budget estimates and FY26 numbers are based on fiscal deficit assumption of 4.5% of GDP as per the central government's targe t.

Source: Goldman Sachs Global Investment Research

What can change? A "tilt", not a "pivot" towards welfare spending

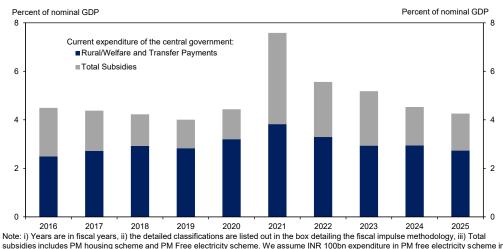
Current expenditure: We split the current expenditure of the central government into five broad categories: i) transfer to households, ii) subsidies, iii) rural expenditure, iv) welfare expenditure and v) urban expenditure (Please see Appendix for more details) (<u>Exhibit 7</u>).

We include pensions and farmer cash assistance programme under transfers to households. Under subsidies, we include the housing scheme and free electricity (solar panel) scheme, where the former provides a subsidy on housing loan for houses in the rural / urban areas, while the latter provides a fixed subsidy amount proportionate to the (number of) kilowatt (kW) system installed at a rural/urban home.

Based on our classification we observe some key trends:

- Outlay on total subsidies based on our classification has averaged around 1.5% of GDP in the pre-pandemic period (FY16-20). During the pandemic in FY21, it surged to 3.8% of GDP before declining to 1.5% of GDP in FY25 (as per BE) mainly due to lower outlay on major subsidies of food and fertilizer. However, there are upside risks to these numbers from higher food subsidies to deal with supply shocks from weather disturbances.
- Rural expenditure, welfare spending and transfer payments have averaged around 3% of GDP in the pre-pandemic period (FY16-20) and are now reverting to trend after increasing during the pandemic in FY21.

Exhibit 7: Subsidies budgeted to moderate in FY25



subsidies includes PM housing scheme and PM Free electricity scheme. We assume INR 100bn expenditure in PM free electricity scheme in FY25, other estimates are as per BE

Source: CEIC, Goldman Sachs Global Investment Research

Income tax cut: Income tax collections (as a % of GDP) have been gradually increasing in the pre-pandemic period from 2.1% of GDP in FY14 to 2.5% of GDP in FY20. As the economy re-opened in FY22, the ratio increased to 3.0% of GDP and has risen since then. If the government chooses to change income tax policy, based on our assessment of hypothetical scenarios⁵, we estimate the revenue loss of the government to be around 5-15bp of GDP⁶ with the fiscal impulse being meager around 2-7bp in FY25.

Policy options with the INR 1tn (0.3% of GDP) extra dividend from the RBI

- The RBI transferred 0.3% of GDP extra dividend to the government in May, and we provide a sensitivity analysis of fiscal deficit (% of GDP) under different scenarios of capital expenditure growth (yoy) and current expenditure (ex interest payments) growth (yoy).
- If the higher than budgeted dividend from the RBI is used for increasing expenditure, capex growth could increase to 21% yoy (from 17% yoy BE) while current expenditure growth (ex interest payments) could increase to 5% yoy if the government sticks to its fiscal deficit target of 5.1% of GDP in FY25 (Exhibit 8).
- We further analyze the fiscal impulse through current expenditure, if the extra dividend is allocated to welfare schemes/subsidies, transfer payment, or tax cuts. Given our MPC assumptions (Exhibit 13), we estimate the largest boost from subsidies and welfare expenditure, while the impact from a cut in tax

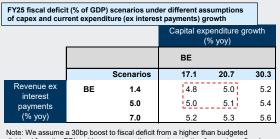
We view these estimates as illustrative as the revenue loss from such a measure requires an in-depth general equilibrium analysis as a tax cut for the lower income households may raise consumption and hence indirect taxes (via GST collections) which can provide an offset to lower direct tax collections.

⁶ We considered three different hypothetical scenarios of income tax policy change, i) Increasing the standard deduction limit by INR 50k under the new tax regime, ii) Increasing the net taxable income, exempted from taxation from INR 0.3mn to INR 0.4mn under the new tax regime, iii) Increasing the amount of exemption from tax savings by INR 50k under the old tax regime

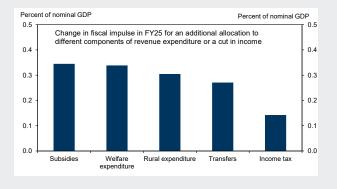
rates is likely to be the least (Exhibit 9).

- We view these estimates as illustrative rather than precise estimates owing to a number of limitations. Firstly there are uncertainties around our MPC estimates. Secondly, we only measure the first order effects of government policy on GDP, but not any second round effects whereby higher capital expenditure has ripple effects on real GDP growth in subsequent years. Thirdly, we also do not include any potential offsets from monetary policy.
- As per previous studies⁷, the impact multiplier for capital expenditure is around 1.3-2.5 in the year of policy change, which implies that INR 1 extra spending on capital expenditure results in INR 1.3-2.5 higher nominal GDP in the year of policy change.

Exhibit 8: Capital expenditure growth may increase to 21% yoy (vs. 17.1% budgeted growth) while current expenditure could increase to 5.0% yoy given the higher than budgeted dividend from the RBI



Note: We assume a 30bp boost to fiscal deficit from a higher than budgeted dividend from the RBI and base our growth scenarios starting from a base fiscal deficit assumption of 4.8% of GDP Exhibit 9: We estimate the largest boost from subsidies and welfare expenditure in FY25 should the government reallocate the additional INR 1tn it received as dividend from the RBI last month



Source: CEIC, Goldman Sachs Global Investment Research

Source: Goldman Sachs Global Investment Research

- Managing the coalition: Given that the BJP will be running a government without a majority on its own in the Lok Sabha, there have been some questions around the financial assistance that the two major coalition partners (Bihar and Andhra Pradesh) might receive in the upcoming budget for FY25. <u>As per media articles</u>, the Chief Minister of Andhra Pradesh which is one of the coalition states has sought increased central assistance in the redevelopment of the state capital. The states might also aim to reduce their debt burden should they receive any assistance from the center which is at <u>33%/36% of state GDP</u> (as per FY24 BE) for Andhra Pradesh/Bihar respectively. In our view, the allocation from the center might not be large as a hypothetical transfer of 0.1% of national GDP to the states would in itself imply a 3% / 2% of state GDP boost to Bihar / Andhra Pradesh.
- Public debt: Finally, India runs a large public debt to GDP of 84% (central: 59% of GDP, states: 25% of GDP) compared to other EMs and consequently has a large interest burden of 3.6% of GDP. The government can also choose to retire some of its outstanding debt, or quasi government debt with the extra dividend from the RBI, which may result in lower borrowings and thus gross issuance this year by say INR 500bn to INR 13.6tn (vs. INR 14.1tn as per BE).

⁷ See i) <u>Bose, Bhanumurthy, 2014 Fiscal Multipliers for India</u>, ii) <u>Size of Government Expenditure Multipliers</u> in India: A Structural VAR Analysis (RBI)

Public finance for the future

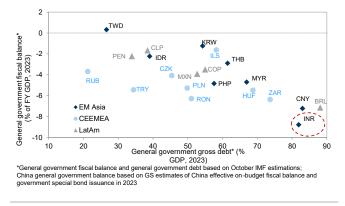
The budget is also likely to lay out a path for the future of public finance in India. The 16th Finance Commission which is responsible for determining the sharing of tax revenues between the central and the state governments is likely to submit its report by end October 2025. There are three important issues to look forward to:

a) **Debt sustainability:** A roadmap for public debt sustainability in India. India is a regional and EM outlier on both flow and stock of government debt, with a general government debt above 80% of GDP, hence the imperative for fiscal consolidation (<u>Exhibit 10</u>)

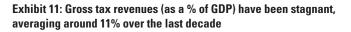
b) **Fiscal federalism:** Devolution of tax collection between the central and state governments, and how to raise tax to GDP ratio, which has been stagnant around 11% average over the last decade (<u>Exhibit 11</u>)

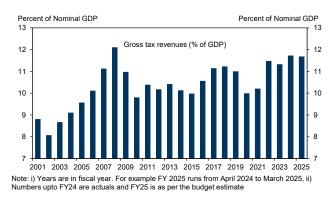
c) **Green finance:** How does India balance energy security vs. energy transition, and the role of public finance.

Exhibit 10: India is a regional and EM outlier on general government deficit



Source: Haver Analytics, Goldman Sachs Global Investment Research





Source: CEIC, Union Budget

Appendix 1

Methodology for computing the fiscal impulse

We use the bottom-up methodology of deriving the fiscal impulse used by the <u>Hutchinson Center of the</u> <u>Brookings Institute</u>. We use an exhaustive list of spending and revenue items of the government on an annual basis since FY 2017.

On the expenditure side, we begin by excluding interest payments and grants given by the central government to the states from revenue expenditure as these do not add to any spending impulse in the economy. We then split the revenue expenditure (ex of interest payments and state grants) into five broad categories, i) transfer to households (including pensions and farmer assistance programme), ii) Subsidies, iii) Rural expenditure, iv) Welfare expenditure and v) Urban expenditure (<u>Exhibit 12</u>).

Current/Non-capital spending									
Sector	Ministry	Weight in revenue expenditure in FY24 (%)	Sector Weight						
Interest Payments	Ministry of Finance	30.4	30.4						
State Grants	Various ministries	23.1	23.1						
Transfer to Households			9.6						
PM Farmer assistance programme	Ministry of Rural Development	1.7							
Pension	Various ministries	7.8							
Subsidies			13.4						
Major subsidies			11.8						
Food	Department of Food and Public Distribution	6.1							
Fertilizer	Department of Fertilisers	5.4							
Petroleum	Ministry of Petroleum and Natural Gas	0.3							
PM Housing scheme			1.5						
PM Housing scheme - Urban	Ministry of Housing and Urban Affairs	0.6							
PM Housing scheme - Rural	Ministry of Rural Development	0.9							
Rural	Ministry of Rural Development	3.8	5.6						
	Ministry of Agriculture and Farmers' Welfare	1.7							
	Ministry of Fisheries, Animal Husbandry and Dairying	0.1							
Welfare	Ministry of Education	3.5	9.8						
	Ministry of Health and Family Welfare (MHFW)	2.3							
	Department of Drinking Water and Sanitation	2.2							
	Ministry of Women and Child Development	0.7							
Food Fertilizer Petroleum PM Housing scheme PM Housing scheme - Urban PM Housing scheme - Rural Rural	Ministry of Social Justice and Empowerment	0.3							
	Ministry of Labour and Employment	0.3							
	Ministry of Tribal Affairs	0.2							
	Ministry of AYUSH*	0.1							
	Ministry of Skill Development and Entrepreneurship	0.1							
	Ministry of Youth Affairs and Sports	0.1							
	Ministry of Minority Affairs	0.0							
Urban	Ministry of Housing and Urban Affairs	0.6	0.6						
Other revenue expenditure Revenue expenditure		7.6	7.6 100						

Source: Goldman Sachs Global Investment Research

We categorize revenue into five broad categories, i) income taxes, ii) corporate taxes, iii) indirect taxes (which comprise primarily of GST, excise and customs), iv) non-tax revenues (dividend income from state owned enterprises, RBI) and v) capital receipts (income from sale of assets).

To calculate the impact of changes in government spending on subsidies, transfer, welfare and changes in taxes we define a set of marginal propensity of consumption (MPC)⁸ and investment (MPI)⁹ for the different categories of revenue and expenditure items described above (<u>Exhibit 13</u>).

We base our MPC assumptions on a survey of the literature, which suggests that India's MPC lies between 0.6-0.9¹⁰. Based on this evidence, we assume an MPC at the higher end of this range at 0.8 for transfer payments to households as these comprise pensions which go to the aged population of the economy and farm loan waivers which go to lower income households.

For subsidies and welfare expenditure, we assume an MPC of 1 as the economic agents have no other recourse to use the money other than the subsidies they are getting it for. For rural expenditure we use an MPC of around 0.9 (close to 1) as one of the major demand based, rural employment schemes by the government – Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) accounts for close to 50% of the rural expenditure. We consider this rural employment programme as a source of transitory income which translates into an MPC of 0.9 as per previous <u>studies</u>. We assume an MPC of 0.6 for capital expenditure based on a <u>previous study</u> which assigns the multiplier of capital expenditure to growth as 2.5 in the year of policy change¹¹.

For personal income tax we assume an MPC of 0.7 (average of the range of India's MPC between 0.6-0.9) and for corporate taxes we assume a MPI of 0.9 based on a previous study (<u>The Macro Economic Effects</u> of Corporate Tax Cuts: International Evidence and Implications for India).

As households and firms typically adjust their consumption or spending patterns slowly over time, we distribute the personal income tax and corporate tax MPC and MPI over time. For income and corporate taxes we assume 60% of the impact of spending in the first year and 40% in the 2nd year after the policy change.

For non-tax income and capital receipts we assume an MPC of zero as these comprise primarily of dividend income from the central bank, or state-owned enterprises, or from asset sales, which should have limited impact on real economy spending.

MPC assumptions Expenditure								Revenue				
Year	Subsidy	Rural	Urban	Welfare	Transfer	Other revenue expenditure	Capital expenditure	Corporate tax	Income tax	Indirect tax	Non-tax revenue	Capital receipts
1st year after policy change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	-0.3	-0.3	0.0	0.0
Year of policy change	1.0	0.9	1.0	1.0	0.8	1.0	0.6	-0.5	-0.4	-0.5	0.0	0.0
Total	1	0.9	1	1	0.8	1	0.6	-0.9	-0.7	-0.8	0.0	0.0

Exhibit 13: Summary of our MPC assumptions for different revenue and spending items over time

Source: Goldman Sachs Global Investment Research

We follow the Hutchins Center approach, and compute the fiscal impulse, relative to a counterfactual that assumes that various government spending, and revenue categories grow in line with potential GDP. We use our potential growth estimates from our previous study (<u>Discovering India's potential</u>), and then we calculate how actual government spending, transfers and revenue deviate from these counterfactual estimates. We multiply the deviation of fiscal outcomes from the potential GDP based counterfactual, with our marginal propensity estimates, to derive contribution of changes in government spending and revenues to GDP growth, and then sum across categories to calculate the aggregated contribution. We term the aggregated contribution as our measure of "fiscal impulse" (or change in the stance of the fiscal policy) to assess whether the policy adjusted for economic cycle is expansionary or contractionary.

Appendix 2

Details of some of the major schemes of the central government:

PM Housing scheme (PM Awas Yojana): The PM housing scheme was launched in June 2015 to make housing affordable for Indian citizens. In the urban areas the scheme is executed under the Ministry of

⁸ The MPC is an estimate of how much of an incremental INR in personal disposable income earned by households is spent on final goods and services.

⁹ The Marginal Propensity to Invest is an estimate of how much of an incremental INR of post-tax earnings by firms is spent on additional investment projects.

¹⁰ See Chinoy, 2016; RBI Exploring The Slowdown, 2002; Raj, 1962;

¹¹ Growth Multipliers are defined as 1/(1-MPC). Thus a multiplier of 2.5 implies an MPC of 0.6 for capital expenditure

Housing and Urban Affairs, while in the rural areas it is executed by the Ministry of Rural Development. Under the rural housing scheme construction of <u>29.5mn houses has been sanctioned since 2016</u> and out of those 26.1mn houses have been built. Under this scheme financial assistance of INR 0.12mn is provided to the beneficiary for construction of houses in the plains while INR 0.13mn is provided in the hilly areas.

Under the urban housing scheme, construction of <u>11.8mn houses has been sanctioned since 2016</u>) and out of those 8.4mn houses have been built till date. Under this scheme a maximum subsidy of INR 0.23-0.27mn on home loan interest is provided depending upon the income group of the beneficiary. The Prime Minister recently announced the construction of additional 30mn houses under the housing scheme which includes construction of <u>20mn houses in the rural areas and 10mn in the urban areas</u>.

PM Free electricity scheme (PM-Surya Ghar: Muft Bijli Yojana): The cabinet on 29th February 2024 approved a package of <u>INR 750bn to promote solar rooftop installation in India</u> over the next five years. Under this scheme the central government would provide a maximum subsidy of INR 78,000 for the installation of a 3 kilowatt (kW) system. The remaining cost would be borne by the household. The subsidy gets credited into the bank account of the beneficiary within 30 days of feasibility approval from the distribution company.

PM Farmer assistance programme (PM Kisan Samman Nidhi): PM farmer loan assistance programme is a central sector scheme launched in February 2019 to provide financial assistance worth INR 6000 to small and marginal farmers. The amount is transferred in three equal installments, every 4 months with the amount being directly credited into the bank accounts of the beneficiaries without the involvement of middlemen.

Disclosure Appendix

Reg AC

We, Santanu Sengupta, Arjun Varma and Andrew Tilton, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

Unless otherwise stated, the individuals listed on the cover page of this report are analysts in Goldman Sachs' Global Investment Research division.

Disclosures

Regulatory disclosures

Disclosures required by United States laws and regulations

See company-specific regulatory disclosures above for any of the following disclosures required as to companies referred to in this report: manager or co-manager in a pending transaction; 1% or other ownership; compensation for certain services; types of client relationships; managed/co-managed public offerings in prior periods; directorships; for equity securities, market making and/or specialist role. Goldman Sachs trades or may trade as a principal in debt securities (or in related derivatives) of issuers discussed in this report.

The following are additional required disclosures: **Ownership and material conflicts of interest:** Goldman Sachs policy prohibits its analysts, professionals reporting to analysts and members of their households from owning securities of any company in the analyst's area of coverage. **Analyst compensation:** Analysts are paid in part based on the profitability of Goldman Sachs, which includes investment banking revenues. **Analyst as officer or director:** Goldman Sachs policy generally prohibits its analyst's persons reporting to analysts or members of their households from serving as an officer, director or advisor of any company in the analyst's area of coverage. **Non-U.S. Analysts**: Non-U.S. analysts may not be associated persons of Goldman Sachs & Co. LLC and therefore may not be subject to FINRA Rule 2241 or FINRA Rule 2242 restrictions on communications with subject company, public appearances and trading securities held by the analysts.

Additional disclosures required under the laws and regulations of jurisdictions other than the United States

The following disclosures are those required by the jurisdiction indicated, except to the extent already made above pursuant to United States laws and regulations. Australia: Goldman Sachs Australia Pty Ltd and its affiliates are not authorised deposit-taking institutions (as that term is defined in the Banking Act 1959 (Cth)) in Australia and do not provide banking services, nor carry on a banking business, in Australia. This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act, unless otherwise agreed by Goldman Sachs. In producing research reports, members of Global Investment Research of Goldman Sachs Australia may attend site visits and other meetings hosted by the companies and other entities which are the subject of its research reports. In some instances the costs of such site visits or meetings may be met in part or in whole by the issuers concerned if Goldman Sachs Australia considers it is appropriate and reasonable in the specific circumstances relating to the site visit or meeting. To the extent that the contents of this document contains any financial product advice, it is general advice only and has been prepared by Goldman Sachs without taking into account a client's objectives, financial situation or needs. A client should, before acting on any such advice, consider the appropriateness of the advice having regard to the client's own objectives, financial situation and needs. A copy of certain Goldman Sachs Australia and New Zealand disclosure of interests and a copy of Goldman Sachs' Australian Sell-Side Research Independence Policy Statement are available at: https://www.goldmansachs.com/disclosures/australia-new-zealand/index.html. Brazil: Disclosure information in relation to CVM Resolution n. 20 is available at https://www.gs.com/worldwide/brazil/area/gir/index.html. Where applicable, the Brazil-registered analyst primarily responsible for the content of this research report, as defined in Article 20 of CVM Resolution n. 20, is the first author named at the beginning of this report, unless indicated otherwise at the end of the text. Canada: This information is being provided to you for information purposes only and is not, and under no circumstances should be construed as, an advertisement, offering or solicitation by Goldman Sachs & Co. LLC for purchasers of securities in Canada to trade in any Canadian security. Goldman Sachs & Co. LLC is not registered as a dealer in any jurisdiction in Canada under applicable Canadian securities laws and generally is not permitted to trade in Canadian securities and may be prohibited from selling certain securities and products in certain jurisdictions in Canada. If you wish to trade in any Canadian securities or other products in Canada please contact Goldman Sachs Canada Inc., an affiliate of The Goldman Sachs Group Inc., or another registered Canadian dealer. Hong Kong: Further information on the securities of covered companies referred to in this research may be obtained on request from Goldman Sachs (Asia) L.L.C. India: Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (India) Securities Private Limited, Research Analyst - SEBI Registration Number INH000001493, 951-A, Rational House, Appasaheb Marathe Marg, Prabhadevi, Mumbai 400 025, India, Corporate Identity Number U74140MH2006FTC160634, Phone +91 22 6616 9000, Fax +91 22 6616 9001. Goldman Sachs may beneficially own 1% or more of the securities (as such term is defined in clause 2 (h) the Indian Securities Contracts (Regulation) Act, 1956) of the subject company or companies referred to in this research report. 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. Goldman Sachs (India) Securities Private Limited Investor Grievance E-mail: india-client-support@gs.com. Compliance Officer: Anil Rajput |Tel: + 91 22 6616 9000 | Email: anil.m.rajput@gs.com. Japan: See below. Korea: This research, and any access to it, is intended only for "professional investors" within the meaning of the Financial Services and Capital Markets Act, unless otherwise agreed by Goldman Sachs. Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (Asia) L.L.C., Seoul Branch. New Zealand: Goldman Sachs New Zealand Limited and its affiliates are neither "registered banks" nor "deposit takers" (as defined in the Reserve Bank of New Zealand Act 1989) in New Zealand. This research, and any access to it, is intended for "wholesale clients" (as defined in the Financial Advisers Act 2008) unless otherwise agreed by Goldman Sachs. A copy of certain Goldman Sachs Australia and New Zealand disclosure of interests is available at: https://www.goldmansachs.com/disclosures/australia-new-zealand/index.html. Russia: Research reports distributed in the Russian Federation are not advertising as defined in the Russian legislation, but are information and analysis not having product promotion as their main purpose and do not provide appraisal within the meaning of the Russian legislation on appraisal activity. Research reports do not constitute a personalized investment recommendation as defined in Russian laws and regulations, are not addressed to a specific client, and are prepared without analyzing the financial circumstances, investment profiles or risk profiles of clients. Goldman Sachs assumes no responsibility for any investment decisions that may be taken by a client or any other person based on this research report. Singapore: Goldman Sachs (Singapore) Pte. (Company Number: 198602165W), which is regulated by the Monetary Authority of Singapore, accepts legal responsibility for this research, and should be contacted with respect to any matters arising from, or in connection with, this research. Taiwan: This material is for reference only and must not be reprinted without permission. Investors should carefully consider their own investment risk. Investment results are the responsibility of the individual investor. United Kingdom: Persons who would be categorized as retail clients in the United Kingdom, as such term is defined in the rules of the Financial Conduct Authority, should read this research in conjunction with prior Goldman Sachs research on the covered companies referred to herein and should refer to the risk warnings that have been sent to them by Goldman Sachs International. A copy of these risks warnings, and a glossary of certain financial terms used in this report, are available from Goldman Sachs International on request.

European Union and United Kingdom: Disclosure information in relation to Article 6 (2) of the European Commission Delegated Regulation (EU) (2016/958) supplementing Regulation (EU) No 596/2014 of the European Parliament and of the Council (including as that Delegated Regulation is

implemented into United Kingdom domestic law and regulation following the United Kingdom's departure from the European Union and the European Economic Area) with regard to regulatory technical standards for the technical arrangements for objective presentation of investment recommendations or other information recommending or suggesting an investment strategy and for disclosure of particular interests or indications of conflicts of interest is available at <u>https://www.gs.com/disclosures/europeanpolicy.html</u> which states the European Policy for Managing Conflicts of Interest in Connection with Investment Research.

Japan: Goldman Sachs Japan Co., Ltd. is a Financial Instrument Dealer registered with the Kanto Financial Bureau under registration number Kinsho 69, and a member of Japan Securities Dealers Association, Financial Futures Association of Japan Type II Financial Instruments Firms Association, The Investment Trusts Association, Japan, and Japan Investment Advisers Association. Sales and purchase of equities are subject to commission pre-determined with clients plus consumption tax. See company-specific disclosures as to any applicable disclosures required by Japanese stock exchanges, the Japanese Securities Dealers Association or the Japanese Securities Finance Company.

Global product; distributing entities

Goldman Sachs Global Investment Research produces and distributes research products for clients of Goldman Sachs on a global basis. Analysts based in Goldman Sachs offices around the world produce research on industries and companies, and research on macroeconomics, currencies, commodities and portfolio strategy. This research is disseminated in Australia by Goldman Sachs Australia Pty Ltd (ABN 21 006 797 897); in Brazil by Goldman Sachs do Brasil Corretora de Títulos e Valores Mobiliários S.A.; Public Communication Channel Goldman Sachs Brazil: 0800 727 5764 and / or contatogoldmanbrasil@gs.com. Available Weekdays (except holidays), from 9am to 6pm. Canal de Comunicação com o Público Goldman Sachs Brasil: 0800 727 5764 e/ou contatogoldmanbrasil@gs.com. Horário de funcionamento: segunda-feira à sexta-feira (exceto feriados), das 9h às 18h; in Canada by Goldman Sachs & Co. LLC; in Hong Kong by Goldman Sachs (Asia) L.L.C.; Seoul Branch; in New Zealand by Goldman Sachs New Zealand Limited; in Russia by OOO Goldman Sachs; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W); and in the United States of America by Goldman Sachs & Co. LLC. Goldman Sachs International has approved this research in connection with its distribution in the United Kingdom.

Goldman Sachs International ("GSI"), authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA, has approved this research in connection with its distribution in the United Kingdom.

European Economic Area: GSI, authorised by the PRA and regulated by the FCA and the PRA, disseminates research in the following jurisdictions within the European Economic Area: the Grand Duchy of Luxembourg, Italy, the Kingdom of Belgium, the Kingdom of Denmark, the Kingdom of Norway, the Republic of Finland and the Republic of Ireland; GSI - Succursale de Paris (Paris branch) which is authorised by the French Autorité de contrôle prudentiel et de resolution ("ACPR") and regulated by the Autorité de contrôle prudentiel et de resolution and the Autorité des marches financiers ("AMF") disseminates research in France; GSI - Sucursal en España (Madrid branch) authorized in Spain by the Comisión Nacional del Mercado de Valores disseminates research in the Kingdom of Spain; GSI - Sweden Bankfilial (Stockholm branch) is authorized by the SFSA as a "third country branch" in accordance with Chapter 4, Section 4 of the Swedish Securities and Market Act (Sw. lag (2007:528) om värdepappersmarknaden) disseminates research in the Kingdom of Sweden; Goldman Sachs Bank Europe SE ("GSBE") is a credit institution incorporated in Germany and, within the Single Supervisory Mechanism, subject to direct prudential supervision by the European Central Bank and in other respects supervised by German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin) and Deutsche Bundesbank and disseminates research in the Federal Republic of Germany and those jurisdictions within the European Economic Area where GSI is not authorised to disseminate research and additionally, GSBE, Copenhagen Branch filial af GSBE, Tyskland, supervised by the Danish Financial Authority disseminates research in the Kingdom of Denmark; GSBE - Sucursal en España (Madrid branch) subject (to a limited extent) to local supervision by the Bank of Spain disseminates research in the Kingdom of Spain; GSBE - Succursale Italia (Milan branch) to the relevant applicable extent, subject to local supervision by the Bank of Italy (Banca d'Italia) and the Italian Companies and Exchange Commission (Commissione Nazionale per le Società e la Borsa "Consob") disseminates research in Italy; GSBE - Succursale de Paris (Paris branch), supervised by the AMF and by the ACPR disseminates research in France; and GSBE - Sweden Bankfilial (Stockholm branch), to a limited extent, subject to local supervision by the Swedish Financial Supervisory Authority (Finansinpektionen) disseminates research in the Kingdom of Sweden.

General disclosures

This research is for our clients only. Other than disclosures relating to Goldman Sachs, this research is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. The information, opinions, estimates and forecasts contained herein are as of the date hereof and are subject to change without prior notification. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Other than certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgment.

Goldman Sachs conducts a global full-service, integrated investment banking, investment management, and brokerage business. We have investment banking and other business relationships with a substantial percentage of the companies covered by Global Investment Research. Goldman Sachs & Co. LLC, the United States broker dealer, is a member of SIPC (<u>https://www.sipc.org</u>).

Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients and principal trading desks that reflect opinions that are contrary to the opinions expressed in this research. Our asset management area, principal trading desks and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

We and our affiliates, officers, directors, and employees will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives, if any, referred to in this research, unless otherwise prohibited by regulation or Goldman Sachs policy.

The views attributed to third party presenters at Goldman Sachs arranged conferences, including individuals from other parts of Goldman Sachs, do not necessarily reflect those of Global Investment Research and are not an official view of Goldman Sachs.

Any third party referenced herein, including any salespeople, traders and other professionals or members of their household, may have positions in the products mentioned that are inconsistent with the views expressed by analysts named in this report.

This research is focused on investment themes across markets, industries and sectors. It does not attempt to distinguish between the prospects or performance of, or provide analysis of, individual companies within any industry or sector we describe.

Any trading recommendation in this research relating to an equity or credit security or securities within an industry or sector is reflective of the investment theme being discussed and is not a recommendation of any such security in isolation.

This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Investors should review current options and futures disclosure documents which are available from Goldman Sachs sales representatives or at https://www.theocc.com/about/publications/character-risks.jsp and

https://www.fiadocumentation.org/fia/regulatory-disclosures_1/fia-uniform-futures-and-options-on-futures-risk-disclosures-booklet-pdf-version-2018. Transaction costs may be significant in option strategies calling for multiple purchase and sales of options such as spreads. Supporting documentation will be supplied upon request.

Differing Levels of Service provided by Global Investment Research: The level and types of services provided to you by Goldman Sachs Global Investment Research may vary as compared to that provided to internal and other external clients of GS, depending on various factors including your individual preferences as to the frequency and manner of receiving communication, your risk profile and investment focus and perspective (e.g., marketwide, sector specific, long term, short term), the size and scope of your overall client relationship with GS, and legal and regulatory constraints. As an example, certain clients may request to receive notifications when research on specific securities is published, and certain clients may request that specific data underlying analysts' fundamental analysis available on our internal client websites be delivered to them electronically through data feeds or otherwise. No change to an analyst's fundamental research views (e.g., ratings, price targets, or material changes to earnings estimates for equity securities), will be communicated to any client prior to inclusion of such information in a research report broadly disseminated through electronic publication to our internal client websites or through other means, as necessary, to all clients who are entitled to receive such reports.

All research reports are disseminated and available to all clients simultaneously through electronic publication to our internal client websites. Not all research content is redistributed to our clients or available to third-party aggregators, nor is Goldman Sachs responsible for the redistribution of our research by third party aggregators. For research, models or other data related to one or more securities, markets or asset classes (including related services) that may be available to you, please contact your GS representative or go to https://research.gs.com.

Disclosure information is also available at https://www.gs.com/research/hedge.html or from Research Compliance, 200 West Street, New York, NY 10282.

© 2024 Goldman Sachs.

You are permitted to store, display, analyze, modify, reformat, and print the information made available to you via this service only for your own use. You may not resell or reverse engineer this information to calculate or develop any index for disclosure and/or marketing or create any other derivative works or commercial product(s), data or offering(s) without the express written consent of Goldman Sachs. You are not permitted to publish, transmit, or otherwise reproduce this information, in whole or in part, in any format to any third party without the express written consent of Goldman Sachs. This foregoing restriction includes, without limitation, using, extracting, downloading or retrieving this information, in whole or in part, to train or finetune a third-party machine learning or artificial intelligence system, or to provide or reproduce this information, in whole or in part, as a prompt or input to any such system.