White Paper
Fixed Income

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India Sovereign Bonds
Announcement of Index Inclusion

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Executive Summary

- India is the largest Emerging Market economy that was yet to be included in commonly-followed bond indices, but this is about to change.
- Foreign investors are now able to more easily invest in specified Indian debt via the Fully Accessible Route (FAR). This route was opened in April 2020 and removes quotas, which heretofore had been a major barrier to index inclusion. Issuance of this new type of debt is already at $400bn and is now more a third of all outstanding central government debt.
- Fiscal policies to cushion the economy from the effects of the COVID-19 pandemic and stimulate demand have led to increased borrowing, and India now must balance fiscal discipline vis-a-vis the need to fund infrastructure growth. Broadening the investor base will be a key plank of this strategy.
- Leading index provider JP Morgan has announced the inclusion of India government bonds in their flagship GBI-EM GD Index. Inclusion will be phased-in starting in 2Q24, growing by 1% every month until it reaches the threshold at 10%.
- Access to a diversified capital base could aid India to fund its balance of payment deficit, while foreign investors benefit from the strong diversification and attractive risk-return profile offered by India's local currency bonds.

India Bond Markets: Pathway to Inclusion in Global Indices

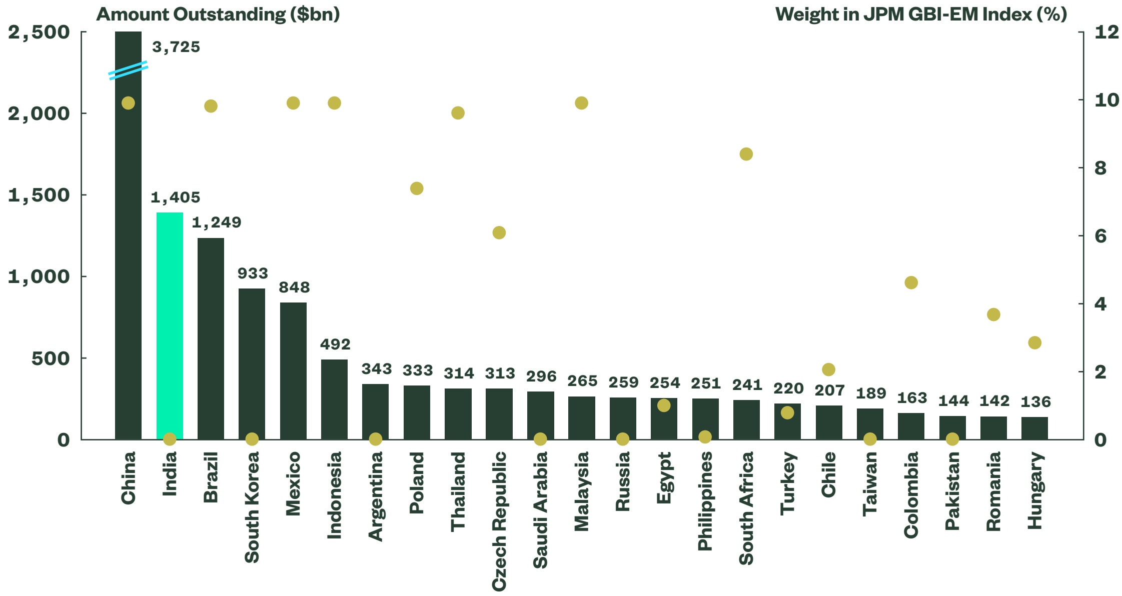
- **India's government has embarked on a strategy of opening up its bond market to foreign investors. Having its sovereign bonds included in benchmark indices is a key pillar of that plan.**

- **The sustained strength of the Indian economy has underpinned the country's investment grade credit rating and the strong post-COVID economic growth momentum should provide comfort for investors.**

India is among the last of the large investment grade (IG) rated developing economies whose government bonds were not yet a part of global bond indices (Figure 1). This had been primarily due to limitations imposed by the government on foreign ownership of its domestic debt. Foreign ownership has been capped at 6% of the outstanding debt stock for government securities, and there exists a limit which caps aggregated foreign investment in any security to 30% of outstanding as well. Consequently, global fixed income allocations to India used to be non-core and off-benchmark, resulting in a significant under-representation of Indian debt in investors' global bond portfolios. India's government had embarked on a strategy since 2020 to dismantle the barriers to index inclusion, thereby paving the way to attract foreign investors with the aim of having its sovereign bonds included in global indices. Attracting international investors through a clearly communicated and sequenced series of reforms and the easing of restrictions is a key pillar of India's strategy to deliver on its vision and targets as it increases issuance of government debt to fund its growing economy.

Figure 1
Largest EM Countries by Local Government Debt

Outstanding Domestic Government Debt ($bn)
Weight in GBI-EM



Source: BBG World Countries Debt Monitor. As of 22 August 2023. Weights of countries in GBI-EM index as of 31 July 2023.

India's Bond Market — A Brief History

India's liberalization reforms began in 1991 and economic growth rates since then have been up to twice those achieved in the period from the 1950s to the 1980s. The country continues to be one of the world's fastest growing large economies having clocked a growth rate of almost 5.7% over the past decade. The size and demographic advantage of its population, the stable political landscape, increasing digitalization of its economy, its expanding share of global manufacturing, consumption growth from its expanding middle income households — all represent considerable growth tailwinds, which could see it potentially become the world's third largest economy within the next decade. Unlike many other developing economies, it has little dependence on commodities as a source of growth. The country's sovereign bond market, which is used primarily to finance the government budget deficit, has also grown strongly to become one of the largest and more liquid among high-yielding EMs. With bid-ask spreads of 0.5–1 bps two-way for the benchmark tenors, and average daily volume traded around $5bn, it is second only to the China local bond market in terms of liquidity.

Figure 2 illustrates the key milestones in the timeline of regulatory change for foreign investors to access the Indian debt market.

Figure 2
Timeline of Key Regulatory Changes in Indian Bond Market

1995	1996	2008	2010	2015	2016	2019	2020	2023
Initiation of FII investment in debt; All FII investment in debt to follow 70:30 route i.e. 30% of investment to be in debt remaining 70% in equity	Introduction of a seperate 100% debt FII category; Overall limit at $1–1.5bn	Separate 70:30 and 100% debt routes eliminated; Govt debt limit increased to $5bn and Corporate debt limit increased to $3 bn	Govt debt limit raised to $10bn-incremental limit to be invested in securities of maturity over 5 years; Lock-in period for such investments is 3 years	Minimum residual maturity of three years introduced, all lock-in period restrictions removed and FPIs allowed to sell securities to domestic investors	Announcement of a new medium-term framework with a $18.2bn increase in the cap on foreign investment of in G-secs by March 2018, to be implemented in quarterly phases	Introduction of a 'Voluntary Retention Route' (VRR) for foreign investors, provided FPIs voluntarily commit to retain a required minimum percentage of their investments in India for a period	Introduction of a separate Fully Accessible Route (FAR) for foreign investors in certain specified Government bonds. No minimum residual maturity, concentration, and investment limits	Growth of FAR bonds outstanding to $400 bn. Continued addressal of operational issues related to various aspects of foreign bond ownership

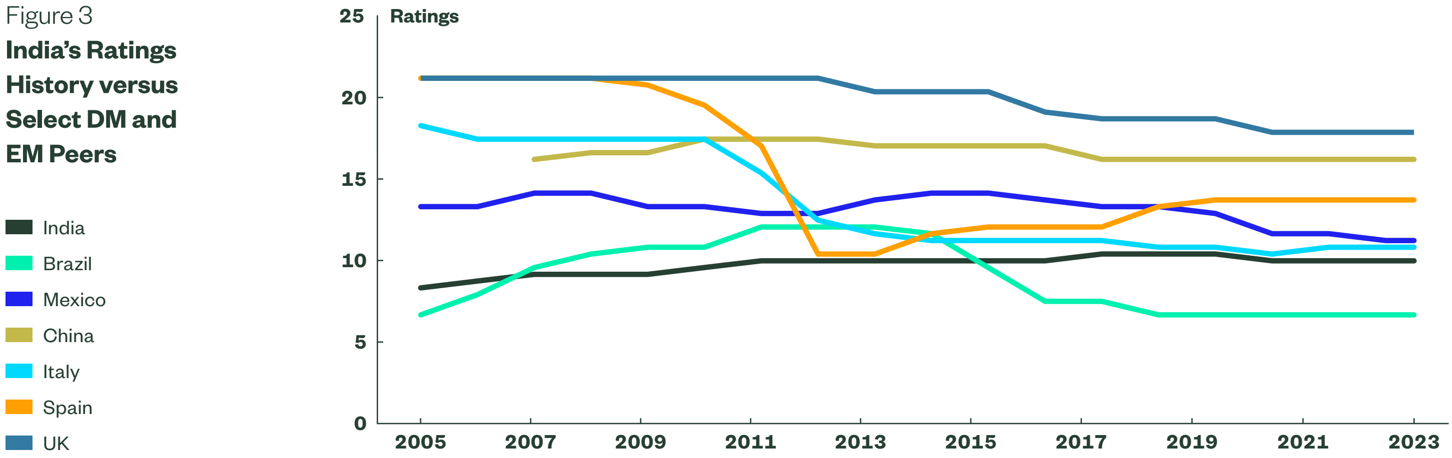
Source: Reserve Bank of India, News Media. FII=Foreign Institutional Investor.

Credit Ratings History

India's local sovereign debt is well established and has had investment grade status since being upgraded by Fitch in 2006. Fitch's action was followed by similar Moody's and S&P upgrades, and the country's credit rating has been stable in IG territory since then.

The stability of India and other emerging markets' ratings contrasts with the creeping deterioration of similar developed market sovereigns such as Italy and Spain etc., (Figure 3). The big three global rating agencies in their most recent review near mid-2023 affirmed the country's BBB-/Baa3 rating with a stable outlook. They recognized the country's fundamental strengths such as the return of robust economic growth post-pandemic (IMF expectations of next 5-year real GDP growth at 6% CAGR), a strengthening trend in bank and corporate balance sheets in the past few years aided in turn by improvement in asset quality and probability, robust service sector exports, and a moderating goods deficit from declining oil prices. India also holds sufficiently large FX reserves of close to $601 bn, giving the central bank enough capacity to intervene in the FX markets if needed, to prevent excessive volatility in the INR — in addition to the broad-based goals of meeting the country's external payment obligations and import needs. High deficits and debt relative to peers, leading to a vulnerability to fiscal shocks in a period of globally high interest rates were pointed as potential risks to the ratings outlook.

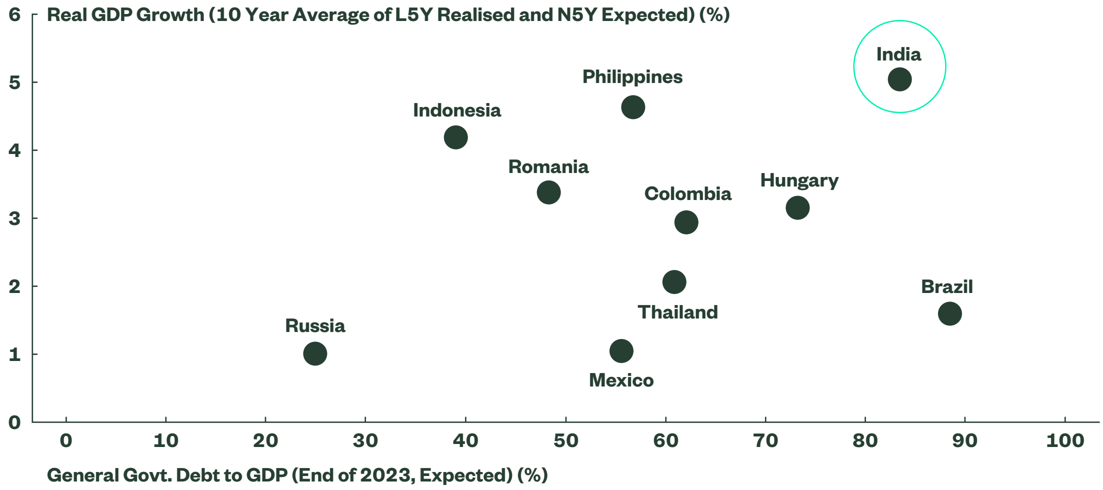
Figure 3
India's Ratings History versus Select DM and EM Peers



Source: Bloomberg. As of 22 August 2023.

IMF projects India's debt to GDP ratio to consolidate at 83% levels in calendar year 2023, having decreased from the 2020 peak of 90%, but much above the pre-pandemic ranges of around 75%. We believe stabilisation of the debt to GDP will depend much more on realisation of growth prospects over the next few years, than on slightly larger deficits — especially if the deficit is accompanied by a credible fiscal consolidation plan. India targets to narrow its fiscal gap to 5.9% of GDP in financial year (FY) 2023, from 6.4% in the last financial year, and its medium-term fiscal guidance retains its glide downward to a deficit target of 4.5% of GDP by FY26. Despite weather hindrances, divestment revenue shortfalls, and lesser than expected corporate tax collections — it is on track to meet its fiscal target for FY 2023, thanks to an outsized annual surplus transfer of $10.7 bn from the central bank. Also, higher budgeted capex in the upcoming years may allow greater spending flexibility, as it could be cut or slowed while still remaining above historical levels, and provide headroom to meet deficit targets. Even though the government has demonstrated reasonable commitment to meeting its recent budget targets, there exist chances of slippage if political spending pressures increase as the general election in May 2024 approaches, or if the global economy weakens by a large extent.

Figure 4
Expected Growth of the Denominator in Debt/GDP Ratio Matters



Source: International Monetary Fund. As of April 2023.

Important Recent Developments in India's Bond Markets

- **The Reserve Bank of India initiated a key move in opening up the market to foreign investment with its introduction of a Fully Accessible Route (FAR) that allows for investment in specified bonds.**

- **India is actively seeking sources of funding for the continued growth of the economy and the stable currency, attractive yields and low correlation with other markets represent additional draws for investors.**

A strategic plan to open up India's sovereign bond market was first announced in the February 2020 Union budget. The Reserve Bank of India then followed through on April of the same year, introducing a separate Fully Accessible Route (FAR) for foreign investors in certain specified government bonds, without being subject to minimum residual maturity, concentration, or investment limits. Five securities, across different tenors, with an overall amount outstanding of $67bn were listed as eligible under FAR with immediate effect. It was also announced that all new issuances of government securities of five-year, 10-year and 30-year benchmarks from the financial year 2020–21 will be eligible for investment under FAR. The list of FAR-eligible securities has since been expanded to 31, amounting to $400bn. They are now the most traded securities as they are equally available to domestic investors as well, and comprise more a third of all outstanding central government debt. Once securities are designated to be eligible, they shall remain so until maturity and will also continue to be eligible for investment by domestic investors. This introduction of a separate channel has the potential to substantially simplify foreign investors' access to the Indian sovereign bond markets and, has importantly facilitated India's inclusion in global bond indices.

Figure 5
List of 'Specified Securities' Under FAR

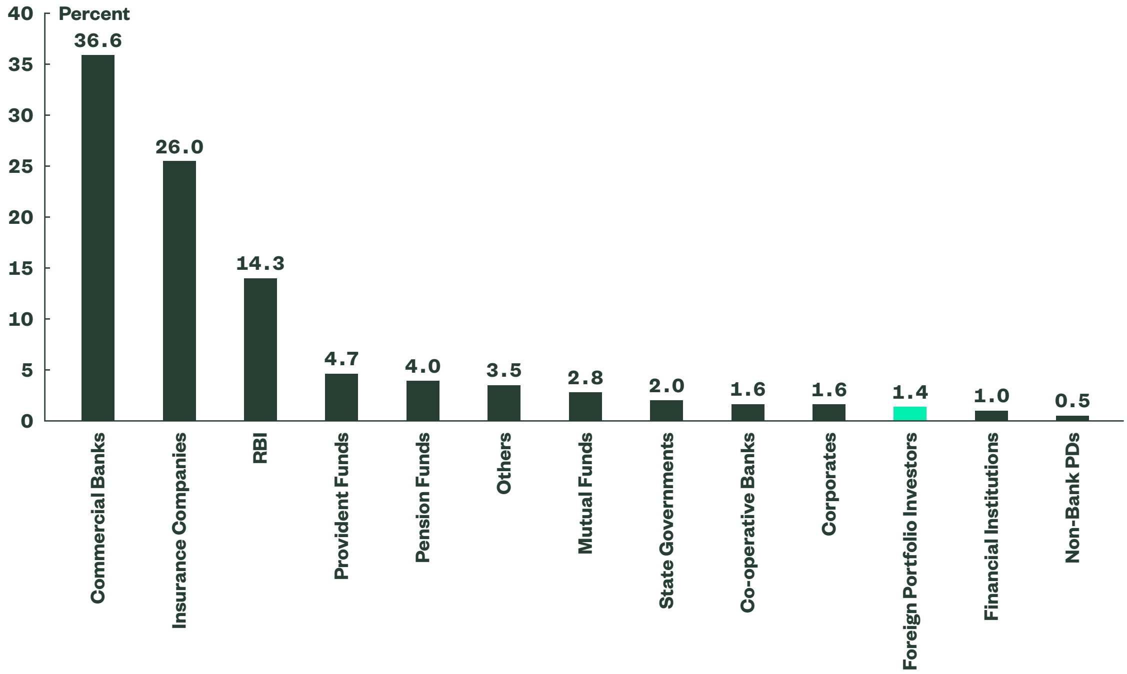
ISIN	Security Name	Maturity	Amount Outstanding ($bn)
IN0020180488	07.32% GS 2024	28/01/2024	7.2
IN0020190396	06.18% GS 2024	04/11/2024	9.6
IN0020200112	05.22% GS 2025	15/06/2025	14.2
IN0020200278	05.15% GS 2025	09/11/2025	14.0
IN0020210012	05.63% GS 2026	12/04/2026	18.0
IN0020210186	05.74% GS 2026	15/11/2026	8.9
IN0020220037	07.38% GS 2027	20/06/2027	17.1
IN0020220136	07.10% GOI SGrB 2028	27/01/2028	1.0
IN0020230010	07.06% GS 2028	10/04/2028	9.6
IN0020180454	07.26% GS 2029	14/01/2029	15.7
IN0020220011	07.10% GS 2029	18/04/2029	19.1
IN0020190362	06.45% GS 2029	07/10/2029	13.8

ISIN	Security Name	Maturity	Amount Outstanding ($bn)
IN0020230036	07.17% GS 2030	17/04/2030	8.4
IN0020200070	05.79% GS 2030	11/05/2030	13.4
IN0020200153	05.77% GS 2030	03/08/2030	14.8
IN0020200294	05.85% GS 2030	01/12/2030	14.5
IN0020210095	06.10% GS 2031	12/07/2031	17.8
IN0020210244	06.54% GS 2032	17/01/2032	18.8
IN0020220060	07.26% GS 2032	22/08/2032	17.8
IN0020220144	07.29% GOI SGrB 2033	27/01/2033	1.0
IN0020220151	07.26% GS 2033	06/02/2033	16.4
IN0020230085	07.18% GS 2033	14/08/2033	1.7
IN0020220029	07.54% GS 2036	23/05/2036	17.9
IN0020220102	07.41% GS 2036	19/12/2036	18.1
IN0020230077	07.18% GS 2037	24/07/2037	4.3
IN0020190032	07.72% GS 2049	15/06/2049	10.1
IN0020200054	07.16% GS 2050	20/09/2050	12.0
IN0020200252	06.67% GS 2050	17/12/2050	18.0
IN0020210194	06.99% GS 2051	15/12/2051	17.7
IN0020220086	07.36% GS 2052	12/09/2052	19.4
IN0020230051	07.30% GS 2053	19/06/2053	6.6
Total			**397.0**

Source: Reserve Bank of India, Bloomberg. As of 22 August 2023.

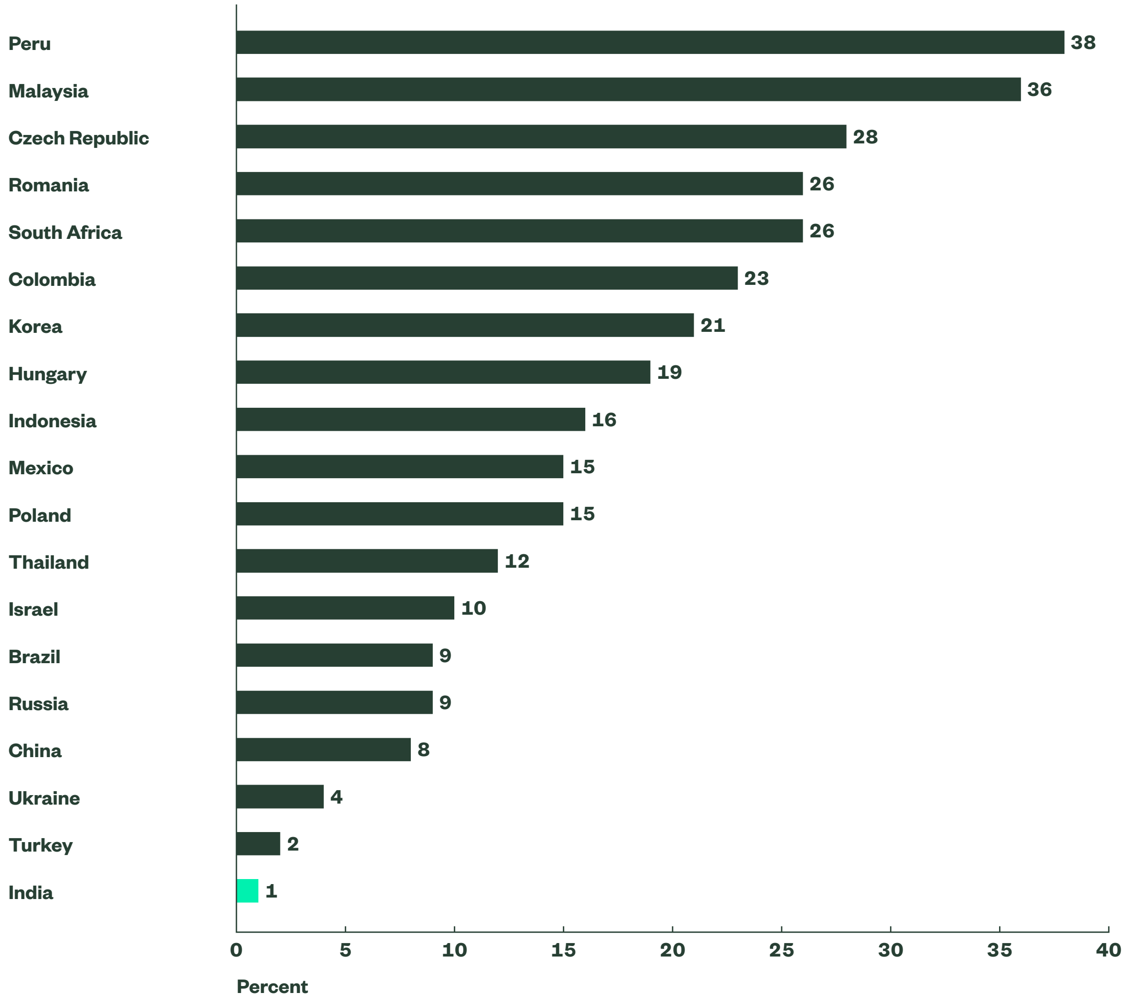
Securing greater access to global bond investor capital has its advantages and drawbacks. With foreign ownership of the country's bonds considerably below other EM peers (Figure 7), this represents a significant untapped demand potential for Indian government bonds — and global investor inflows could help fund the structural balance of payment deficits in the medium term without a significant retrenchment of growth-oriented infrastructure expenditure. Consistent inflows, if realised, would improve the demand for INR, and lower the need for frequent spot FX interventions by the central bank to prevent the FX from depreciating sharply. Also, as a new investor base comes in, commercial banks' mandatory holding of Treasury assets as part of their Statutory Liquidity Ratio (SLR) reserve requirements can be reduced over time — allowing them to deploy capital in more productive economic activities, boosting lending. An additional level of scrutiny from global investors could also encourage institutions-backed, transparent, rules-based policy making to a greater extent and kickstart the right path to resolution of operational issues around foreign investing in the domestic bond market. However, the drawbacks are that overall bond and FX market volatility might increase, as more active foreign investors replace domestic investors who tend to have a hold-to-maturity profile, particularly in sharp-risk-off periods — and could make India's financial conditions less decoupled from global financial conditions over time.

Figure 6
Ownership Breakdown of Indian Government Bonds



Source: Reserve Bank of India. As of 31 March 2023.

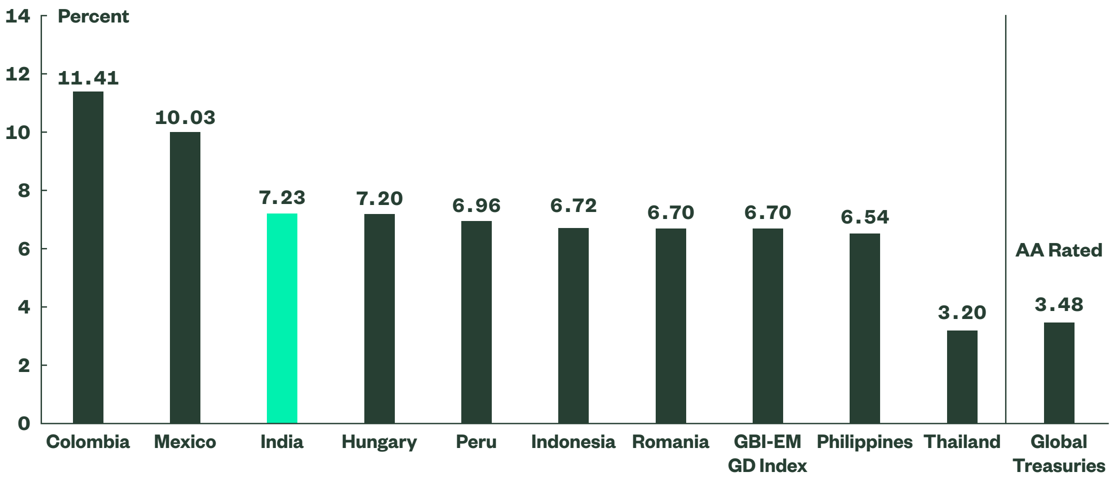
Figure 7
Foreign Ownership Share in Key EM Domestic Bond Markets (%)



Source: BofA Research "GEMs Flow Talk" weekly. As of 17 August 2023.

Attractiveness of Indian bonds to foreign investors include the reasonably stable currency, attractive carry and roll versus that of DMs and other EMs (Figure 8), and diversification as India government bonds have exhibited low correlations versus other DM and EM markets. Also, India's historical risk-reward profile is better than that exhibited by the JPM GBI-EM GD index, and hence inclusion would benefit the risk return profile of the index, as a whole. We can draw some inferences for potential demand from the inclusion of China bonds into various widely followed benchmark indices, which took place in two phases — one from April-2019 to October-2021 and the other is still ongoing from November-2021 and expected to conclude October-2024. Index providers Barclays and JP Morgan were the first to include China in their Global Agg and JPM GBI-EM indices respectively in the first phase. FTSE's inclusion into its WGBI index was termed out for 36 months starting November-2021. In the first phase, index inclusion was expected to generate combined flows of $165bn, based on China's index weights in those two indices alone. However, actual flows from foreign investors into China during the first phase was almost $285 bn — and have run above levels explained by allocation at benchmark weights alone, implying an additional layer of demand for bonds of countries which prove their investability by virtue of getting included in a benchmark. It needs to be mentioned however, that in phase 2, factors such as the vanishing yield advantage of China vs the rest of the world, political and real estate related risk in the Chinese economy etc., have played a much bigger factor in investor decisions to allocate to Chinese bonds.

Figure 8
Average Yields of BBB+/BBB/BBB- Rated Large EM Markets



Source: Bloomberg, JP Morgan. As of 25 September 2023.

Figure 9
Correlations of India Treasuries vs. Other Markets (USD Unhedged) — Using Monthly Returns, Last 15 Years

	India Govt.	US Treasuries	Euro Govt.	Pan-Asia EM Govt.	EM Local Curreny Govt.	UK Gilts	Global Aggregate	China Govt.
India Govt.	1.00							
US Treasuries	0.15	1.00						
Euro Govt.	0.46	0.37	1.00					
Pan-Asia EM Govt.	0.57	0.42	0.71	1.00				
EM Local Curreny Govt.	0.57	0.15	0.74	0.83	1.00			
UK Gilts	0.21	0.42	0.64	0.53	0.49	1.00		
Global Aggregate	0.45	0.63	0.87	0.81	0.73	0.71	1.00	
China Govt.	0.24	0.27	0.26	0.51	0.25	0.25	0.34	1.00

Source: Bloomberg, BofA, JP Morgan, iBoxx. As of 21 August 2023.

Index Weights on India's Inclusion in the JPM GBI-EM GD Index

- **While India is yet to smooth out operational hurdles fully related to ease of foreign investment in its bond market, there is increasing recognition that the country has made considerable progress towards achieving that goal.**

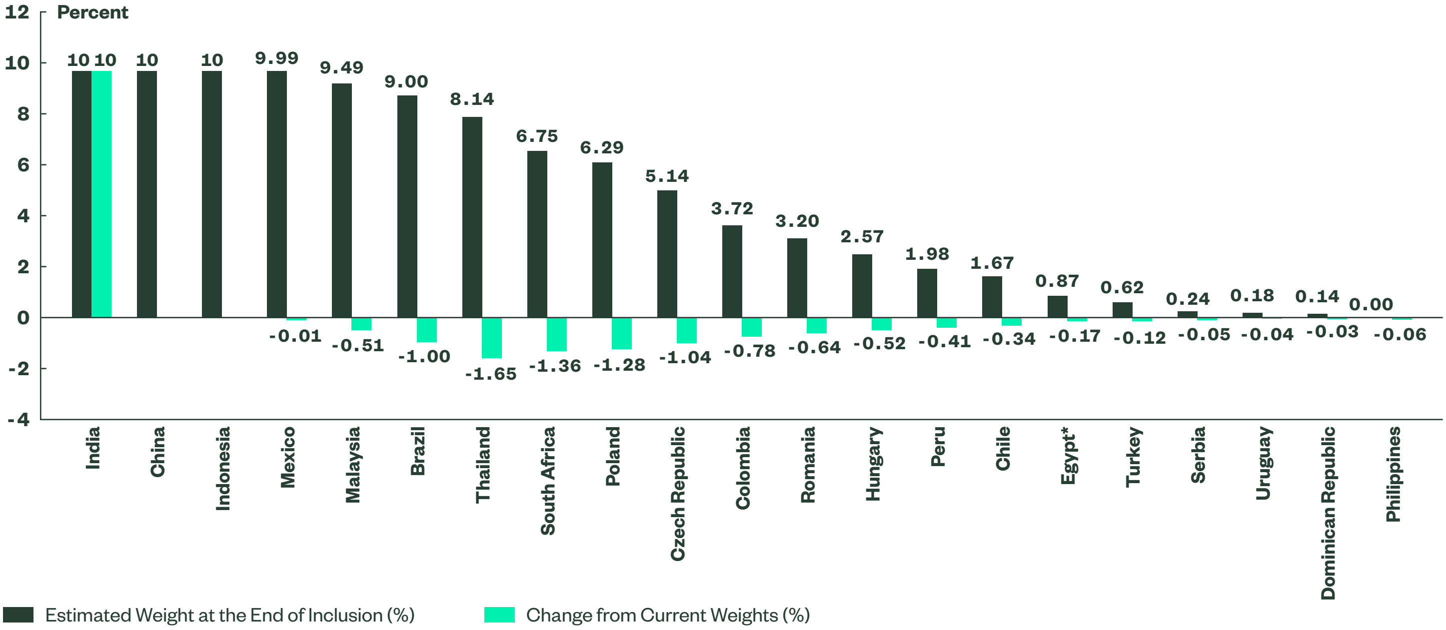
- **Indian bonds would ultimately account for 10% of the JP Morgan GBI-EM Global Diversified Index, which is the maximum weight of any country allocation.**

The key global bond benchmark that has been considering India for inclusion is the JP Morgan GBI-EM Global Diversified index, which is the flagship benchmark for EM local currency debt investors. JP Morgan completed a survey of institutional asset managers and asset owners who manage their assets to JPM indices in March 2023, as well as conducted its annual EM Index Governance consultations over June–August 2023. Based on findings from the survey and investor feedback, it decided to include India in the GBI-EM Global Diversified Index in this year's upcoming review cycle at a full weight of 10%, phased in over 10 months starting June 28, 2024, through March 31, 2025. In addition to the GBI-EM Global Diversified Index, India will also be included in the whole GBI-EM Global index suite and all relevant derivative benchmarks (including custom indices). GBI-EM GD accounts for US$ 213 billion of the estimated US$ 236 billion benchmarked to the GBI-EM family of indices. With FAR bonds meeting most of the entry conditions for index inclusion, and having grown to a critical mass, that category of bonds would be included, rather than the entire government debt stack. Recent improvements by the authorities to quicken the foreign portfolio investor registration process, relaxation related to margin requirements for trading and a more streamlined account opening process through the common application form were acknowledged. However, the issues which are still work-in-progress surrounding smooth operational readiness required for settlement, as well as repatriation of cash from sales proceeds is the main reason for giving a longer lead time of almost three quarters for operational readiness prior to index inclusion. Potential reweighting of countries in the event of India's inclusion in GBI EM at its completion stage is in Figure 10.

Inclusion by investors at index weights alone in the JPM indices is expected to lead to $20–25 bn in inflows. We would consider these initial inflows as the thin end of the wedge due to many reasons. India's relatively higher yields among the index constituents potentially would make it more popular as overweight for active managers. Also, JPM's inclusion could open the door for Bloomberg to eventually include India in its own Global Aggregate index. While India would be a small weight of close to 0.7% in the Global Agg, that could still be equivalent to between $15–20bn in initial inflows, given the $2.5 T AUM tracking Global Agg. The persistence of long-term flows depends on whether inclusion itself pushes authorities to move quicker towards resolving some of the pending operational/tax concerns, increases breadth of market participants in local markets, and the evolution of depth and liquidity in bond and FX hedging instruments as foreign investors use them to manage exposures.

Foreign investors are subject to a 20% withholding tax on coupon payments. There is also a capital gains tax of 30% and 10% applied for holding periods less than and greater than 12 months respectively (taxes can be reduced under the Double Tax Avoidance agreements, based on foreign investor domicile). Indian authorities previously had plans to make the FAR bonds Euroclear-eligible, thereby bypassing the need to register domestically for clearing and settlement purposes. However, this did not materialise as plans to exempt taxes for foreign investors did not go through in the 2022 budget, and countries using Euroclear need to exempt transactions in that platform from taxes to avoid compliance issues.

Figure 10
Reallocation of Country Weights Due to India Inclusion



Source: JP Morgan. As of 22 September 2023.

Hedging the Currency Exchange Risk

- **Investing in any foreign currency denominated asset comes with foreign exchange risk. Hedging has traditionally offered a way to mitigate such risks.**

- **Hedging the Indian rupee can be costly due to the high cost of carry. However, the strong economic fundamentals and outlook seems likely to continue to attract capital flows, providing support for the currency and negating the need to hedge the rupee for now.**

The Reserve Bank of India (RBI) maintains the Indian rupee (INR) in a managed floating regime. The INR is fully convertible on the current account, and while it is restricted on the capital account, there are specific transactions that have been authorized by the RBI for routine capital account transactions — such as investments by foreign portfolio investors. Onshore deliverable forwards are quoted up to 10 years and can be accessed by foreign institutional investors, corporates, and resident individuals, for hedging purposes. INR buys/sells must be tied to the authorized purchase of assets or trade/income flows. Resident and non-resident entities can also use the route of a simplified hedging facility to hedge the exchange rate risk on all permissible transactions, which can be either contracted or anticipated. The most common tenor with the best liquidity in the forwards market is one year or less, but longer maturities are available and there is reasonable liquidity up to 10 years.

The INR has been a costly currency to hedge historically against the USD or EUR, as hedgers must pay the high cost of carry. During 2023 that cost of carry has trended to its lowest level since 2010 as the FED and ECB raise interest rates but is still near 1.5% per year against the US dollar and over 3% per year against the euro. More importantly, we expect the cost of carry to revert higher over the next 1–2 years in line with the steeper INR yield curve. We believe India's favorable long-term growth outlook is likely to continue to attract capital flows, helping to support the rupee.

We expect slower global growth into 2024, which will certainly impact India's growth and add downside pressure to the rupee. However, as a relatively closed economy with somewhat less dependence on China compared to other Asian economies, we expect Indian growth to continue outperform on a relative basis. In fact, India looks set to gain from the trend in supply chain diversification away from China. Low foreign ownership of Indian equity and fixed income markets also helps to insulate the rupee from sudden, large capital flows if the global slowdown is more severe than we expect. Finally, the government is active in dampening rupee volatility which is likely to limit downside risks as the country continues on a gradual path back to target inflation around 4%.

In summary, we see relatively limited rupee downside risk due to substantially higher long term potential growth, likelihood of greater stability in an economic downturn, limited scope for capital flight, and expected capital inflows in the case of index inclusion. On top of that, the cost of carry to hedge what we see as limited rupee downside risk is high and likely rising over the next 1–2 years. Therefore, we do not recommend hedging INR currency risk over the next 1–2 years for US, Europe and UK based investors.

Appendix

Table A: India Bond Market — Key Characteristics

	Government of India (GoI) Bonds
Issuer	Government of India (GoI)
Currency	Indian rupee (INR)
Minimum denomination	INR10,000 (market lot INR5cr)
Tenors	1–7 years, 10 years, 30 years, 40 years
Coupon frequency	Semi-annual
Day count	30/360
Primary Market	
Auction style	Multiple-price style auction, non-competitive tranche for special entities
Average issue size	INR20–70bn
Auction frequency	4–5 auctions per month
Settlement (Done)	T+1
Secondary Market	
Trading mechanism	OTC, exchange
Trading hours (local time)	0900–1730
Quoting convention	Price to 2 decimals
Average bid-offer spreads	1–4bp
Buying volume in a single day (USDm) (with minimal market impact)	USD200m for benchmark bonds, USD50m for others
Average trade size	INR100m
Volume	INR200–350bn per day
Settlement (Done)	T+1
Clearing	RBI's SGL system, CCIL
Regulations for Foreign investors	
Custodian	Local custodian required
Income-tax on interest	20% interest, subject to Double Taxation Agreement (DTA)
Capital gains tax	10% for long-term, 30% for short-term, subject to Double Tax Agreement (DTA)
Entry/exit restrictions	None

Source: HSBC EM Rates and Currency Guide 2023.

Table B: India FX Market — Key Characteristics

Onshore daily average spot volume	USD12–15bn
Average onshore spot transaction size	USD5m
Onshore spot bid/ask spread	1 pip (0.01INR)
Onshore daily average forward volume	USD5–6bn
Average onshore forward transaction size	USD10m
Onshore forward spread	1 pip (0.01INR)
Offshore daily average NDF volume	USD5–7bn
Average NDF transaction size	USD10–20m
NDF spread	1–2 pips (0.02INR)
Onshore daily average options volume	USD250–350m
Onshore average options transaction	USD20m
Onshore implied option volatility spread	3M: 0.5 vol
Offshore daily average options volume	USD1.0bn
Offshore average options transaction	USD50m
Offshore implied option volatility spread	3M: 0.4 vol

Source: HSBC EM Rates and Currency Guide 2023.

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- Build from breadth
- Invest as stewards
- Invent the future

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* Pensions & Investments Research Center, as of December 31, 2022.
† This figure is presented as of June 30, 2023 and includes approximately $63 billion USD of assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated. Please note all AUM is unaudited.

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