

Banking Services Price Index (Experimental BkSPI)

BACKGROUND

Indian Banking sector comprises of Scheduled Commercial Banks (27 Public Sector Banks, 26 Private Sector Banks, 46 Foreign Banks, 56 Regional Rural Banks, 1574 Urban Cooperative Banks, and 93, 913 rural cooperative banks).

The growth of financial services (in constant 2011-12 prices) was 6.8% in 2015-16. As on February, 2018 key indicators of banking sector viz. aggregate bank deposits and bank credit have shown growth rates of 5.7 percent and 11.0 percent, respectively. Credit as percentage of GDP has grown since 2004-05 and stood at 51.64% in 2016-17. Indian banks have already adopted the international banking supervision accord of Basel II and working towards implementation of Basel III norms by March 2019.

METHODOLOGY

SCOPE:

The services provided by the Banking sector can be grouped into two broad categories, viz. Direct services and Intermediation services. Direct services refer to the services for which banks charge fees, commissions, brokerage etc. The intermediation services covered under the BkSPI are '*deposits*' and '*loans and advances*'.

RBI has made some changes in methodology (especially in case of calculating reference rate) for calculating prices of banking services in base year 2011-12 as compared with 2004-05. In direct banking services two more products namely: NEFT-outward and Core Banking Solution/ Mobile Banking have been added while calculating weighting diagram for base year 2011-12.

BASE YEAR:

The base period of the revised BkSPI series is 2011-12. This has been kept in line with the other macro indicators such as WPI, IIP and National Accounts.

PRICES:

For direct services, price is defined as the fees, commissions, brokerage etc. charged by the banks, per unit of transaction.

For intermediation services, price of the service is defined in terms of a reference price or the opportunity cost of money, defined as:

$$\text{Loan price} = \text{Interest rate received on loans} - \text{reference rate}$$

Deposit price = Reference rate - Interest rate paid on deposits

Reference Rate:

While selecting the reference rate, Financial Intermediately Service Indirectly Measured (FISIM) methodology is followed. In the earlier series (with base 2004-05), the reference rate was defined as the weighted average yield to maturity (YTM) of Central Government securities (default risk free) with residual maturity between 1- and 5- years. However, at times, especially during the period of policy rate changes or changes in market liquidity, movement of this market-determined reference rate becomes very volatile which may result in negative output price / sudden change in BkSPI, even though actual deposit/ lending rates remain stable. To overcome such issue, the revised series (base 2011-12) of BkSPI uses a new reference rate that has been derived as the weighted average of lending rates, deposit rates and the existing reference rate (*i.e.* weighted average YTM of Central Government securities with residual maturity between 1 and 5 years).The respective weights have been selected in proportion to the quantum share of credit, deposits and SLR investment in the banking system.

WEIGHTS AND AGGREGATION:

The weighting diagram used for the intermediation services is calculated as the average of the amount outstanding as on March 31, 2011 and March 31, 2012 and for the direct services, it is calculated on the basis of total income from these services during the year 2011-12.

The weighting diagram for Direct services is:

Services	Weight
Issue of Demand Draft	7.13
Inland Bill Collection	4.27
Foreign Bill Collection	9.48
Inland Cheque Collection	5.91
Foreign Cheque Collection	0.47
Export L/C advised	6.84
Forward Contracts	0.15
TC & other Foreign Exchange Services	0.08
Bank Guarantees	24.77
NEFT-Outward	0.12
RTGS-Outward	1.59

ATM/Debit Card Business	14.46
Credit Card Business	22.85
D-MAT Account	1.11
Core Banking Solution/ Mobile Banking	0.79
Total	100.00

The weighting diagram for intermediation services, based on the data sourced from the Basic Statistical Returns of SCBs in India, is given below:

Activity	Weight (%)
A. Loans	100.00
Agriculture	7.41
Industry	43.91
<i>a. Mining and quarrying</i>	<i>1.27</i>
<i>b. Manufacturing and processing</i>	<i>27.81</i>
<i>c. Electricity, gas and water</i>	<i>5.62</i>
<i>d. Construction</i>	<i>9.21</i>
Transport	2.77
Professional and other services	8.95
Personal Loans	14.36
<i>a. Housing Loans</i>	<i>8.63</i>
<i>b. Loans for purchase of consumer durables</i>	<i>0.08</i>
<i>c. Other personal loans</i>	<i>5.64</i>
Trade	9.31
Finance	9.35
Others	3.95
B. Deposits	100.00
Current Account	11.53
Saving deposits	26.79
Other deposits (Terms)	61.68
<i>a. Less than 3 months</i>	<i>4.61</i>
<i>b. 3 months - 6 months</i>	<i>4.96</i>
<i>c. 6 months - 1 year</i>	<i>6.54</i>

d. 1 year - 3 years	33.54
e. 3 years - 5 years	6.43
f. Over 5 years	5.59
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C. Overall (Loans + Deposits)	100.0
a. Loans	41.21
b. Deposits	58.79

The Banking Service Price Index is then derived by assigning an inter-se weight of 84.4% and 15.6% to the Intermediation Services and the Direct Services respectively. The weights are derived based on the 'Earnings and Expenses of Scheduled Commercial Banks' and are sourced from the Statistical Tables Relating to Banks in India.

Laspeyre's Formula has been used for constructing the BkSPI.

The index for Direct service is compiled as:

$$I_t^a = \sum_i^n \frac{P_{it}^a}{P_{i0}^D} * w_i * 100$$

Where,

P_{it}^a is the average price of i-th Direct service for month 't';

w_i is the weight of ith direct service;

P_{i0}^D is the price of i-th Direct service at base period.

The index for intermediation is compiled as weighted average of Loan and Deposit indices:

$$I_t^b = W_L * I_t^L + W_D * I_t^D$$

where,

W_L is weights of loan (credit) and I_t^L is the *Loan Price Index* for month 't'.

W_D is weights of deposit and I_t^D is the *Deposit Price Index* for month 't'.

The Loan and Deposit Price indices are compiled as:

$$I_t^L = \sum_i \frac{\max(P_{it}^L - R_t, 0)}{\max(P_{i0}^L - R_0, 0)} * w_i * 100;$$

$$I_t^D = \sum_i \frac{\max(R_t - P_{it}^D, 0)}{\max(R_0 - P_{i0}^D, 0)} * w_i * 100$$

where,

P_{it}^L is average interest rate of i-th loan item for month 't'

P_{i0}^L is average interest rate of i-th loan item at base period

P_{it}^D is average interest rate of i-th deposit type for month 't'

P_{i0}^D is average interest rate of i-th deposit type at base period

R_t is the reference rate at time t

R_0 is reference rate at base period

w_i is the weight of i-th loan/deposit item.

Finally, BkSPI is compiled as, $BkSPI_t = (W_a * I_t^a + W_b * I_t^b)$

where,

W_a is the weights of Direct Price Services

W_b is Weights of Intermediate Price Services

SOURCE OF DATA:

The indices have been compiled based on data received from 24 banks, comprising of 15 public sector banks, 4 private banks, 3 foreign banks, one co-operative bank and one regional rural bank. Further, while calculating the reference rate, data on weighted average YTM of Central Government securities with residual maturity between 1 and 5 years have been sourced from the Database on Indian Economy, RBI (<https://dbie.rbi.org.in>); while the deposit and lending rates have been taken from the data received from the 24 banks as mentioned above.
