

MONTHLY SEASONAL FACTORS OF SELECTED ECONOMIC TIME SERIES*

This article presents the estimated seasonal factors of 62 economic time series classified into five major groups, namely,

- (A) Monetary and Banking Indicators (22 series);
- (B) Wholesale Price Index (17 series);
- (C) Consumer Price Index for Industrial Workers (one series);
- (D) Index of Industrial Production (18 series); and
- (E) External Trade (4 series).

The estimation of seasonal factors has been carried out by X-11-ARIMA method, a technical note of which is available in the previous article**. This article considers a uniform data length of 10 years ranging from April 1988 to March 1998 with respect to each series for estimation of seasonal factors.

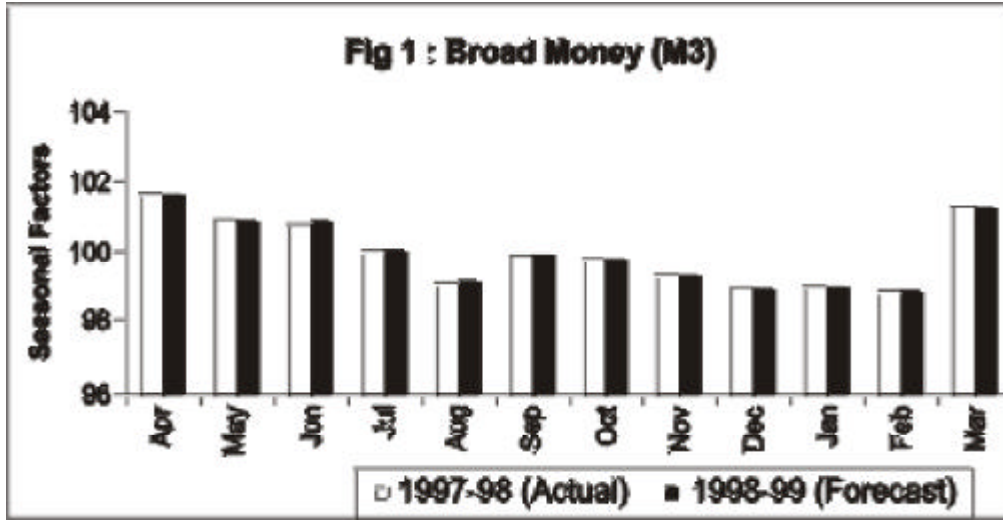
Recently, the Central Statistical Organisation (CSO) has revised the series on Index of Industrial Production (IIP) by shifting the base year from 1981-82 to 1993-94 simultaneously releasing the revised monthly indices of all groups and sub-groups since April 1994 onwards. In order to make each series with a uniform base 1993-94=100, the past data (April 1988 to March 1994) of each IIP series are linked using the linking factor derived by dividing the 1993-94 annual IIP (with 1980-81 base) by 100 for each

series. Further, in the revised base, the two groups, namely, *Machinery, Machine Tools & Parts except Electrical Machinery* and *Electrical Machinery, Apparatus & Appliances* have been merged and the merged group has been renamed as *Machinery and Equipment other than Transport Equipment*. CSO has also released the indices of this new series since April 1994. In order to compile indices (April 1988-March 1994) for this new group, first the old indices of *Machinery, Machine Tools & Parts except Electrical Machinery* and *Electrical Machinery, Apparatus & Appliances* were combined with the help of their respective weights for the old series and then linked with the indices for the new group using the method described earlier.

Monthly seasonal factors for the year 1997-98, the average monthly seasonal factors for the period 1988-89 to 1997-98 (ten years) and forecasts of monthly seasonal factors for the year 1998-99 are presented in Table 1. Since peak and trough values of the seasonal factors are important for analysis, these are also presented in Table 1 along with their respective months. Based on the seasonal factors for last 10 years, ranges of seasonal factors, averages of these ranges along with their standard deviation are presented in Table 2. Figures 1 to 11 present the bar diagrams of monthly seasonal factors for 1997-98 (Actual) and 1998-99 (Forecasts) for 11 important variables. The monthly seasonal factors for these 11 series for the last 10 years are presented in

* Prepared in the Forecasting Division of the Department of Statistical Analysis and Computer Services.

** The previous study in this series was published in February 1998 issue of the Reserve Bank of India Bulletin.

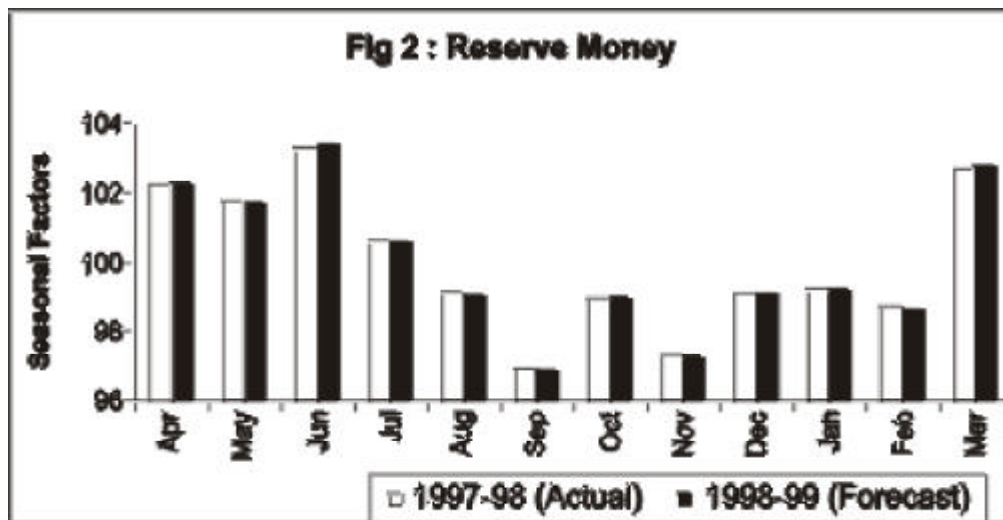


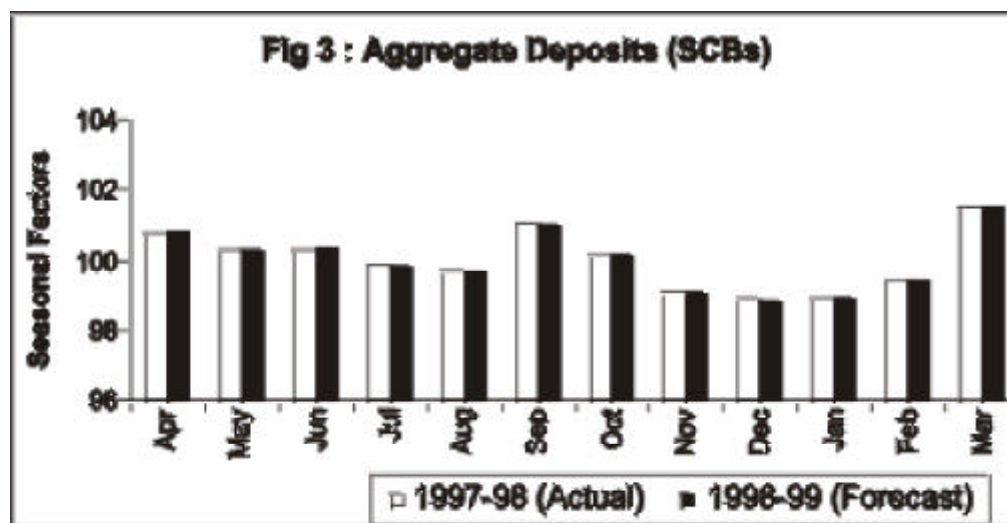
Statement I. The salient features of the variation in seasonal factors of some selected series during the last ten years in general, and 1997-98 in particular, are briefly discussed in the subsequent paragraphs.

A. Monetary and Banking Indicators

The seasonality in *Broad Money (M3)* is influenced by a variety of factors affecting its major components, viz., *Currency with the Public, Demand Deposits* and *Time Deposits* with banks. The seasonal pattern is much

stronger in the case of *Narrow Money (M1)* when compared with M3. This is due to lesser seasonal fluctuations in the *Time Deposits* - the additional component which has nearly two-third share in M3. The average and standard deviation of the range of variation of seasonal factors for M3 are 2.58 and 0.36, respectively, while those for M1 are 6.54 and 0.60, respectively. During 1997-98, both M3 and M1 had April as peak month whereas trough occurred in February for M3 and in August for M1. During 1997-98, WPI - *Foodgrains* had seasonal trough in May,





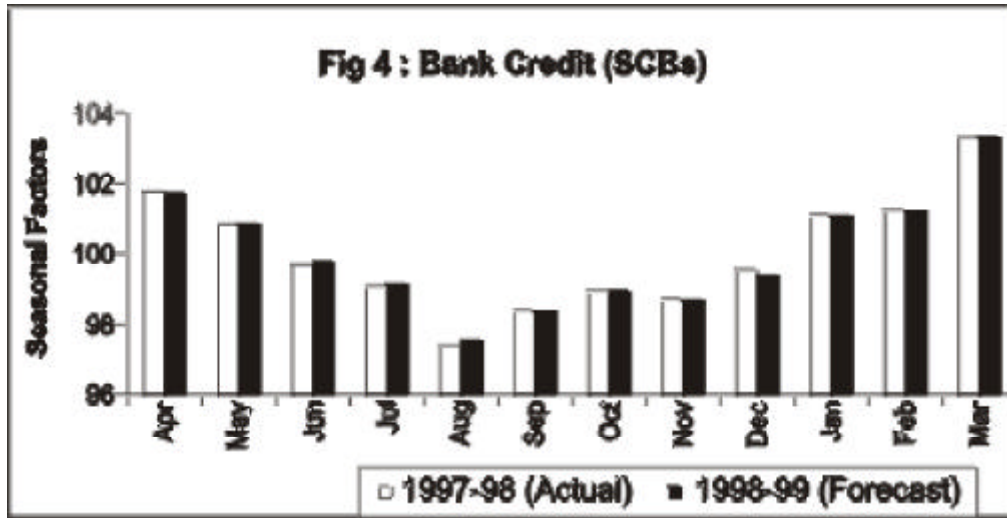
corresponding to harvesting season, whereas peak for *Currency with the Public (CWP)* occurred in May which is complementary. *Reserve Money (RM)* also showed a seasonal pattern similar to CWP since currency in circulation is a major component of RM.

Aggregate Deposits (AD) of Scheduled Commercial Banks (SCBs) had seasonal peak in March whereas seasonal trough occurred in January. However, its two components, viz., *Demand Deposits (DD)* and *Time Deposits (TD)* had very different seasonal behaviour. Peak and trough for DD were in March and August respectively, while those for TD were in September and January, respectively. The average range and standard deviation of seasonal factors of TD were 1.89 and 0.07, respectively, while those for DD were much higher at 7.13 and 2.10, respectively. The seasonal behaviour of *Bank Credit* was similar to that observed in *Demand Deposits* and the two series had same peak and trough months — March and August, respectively. Average seasonal peak and trough of *Investments (SCBs)* occurred in August and March, respectively. *Food Credit (SCBs)*, a component of the *Bank Credit*, had its peak seasonal factor in June

and trough in March for 1997-98. It may be interesting to note that the range of variation of seasonal factors of *Bank Credit* has been slowly increasing whereas that for *Food Credit* has been sharply decreasing over the years. However, the range of seasonality for *Food Credit* at 23.85 in 1997-98 still remained high due to seasonal nature of agricultural operations. During 1997-98, seasonal peak and trough of *Bank Credit to Commercial Sector* occurred in March and August, respectively. The seasonal variation of *Bank Credit to Commercial sector* has been increasing over the years. The peak season for *RBI Investments* was seen in July and the slack season in March with a high and increasing range of variation.

B. Wholesale Price Index

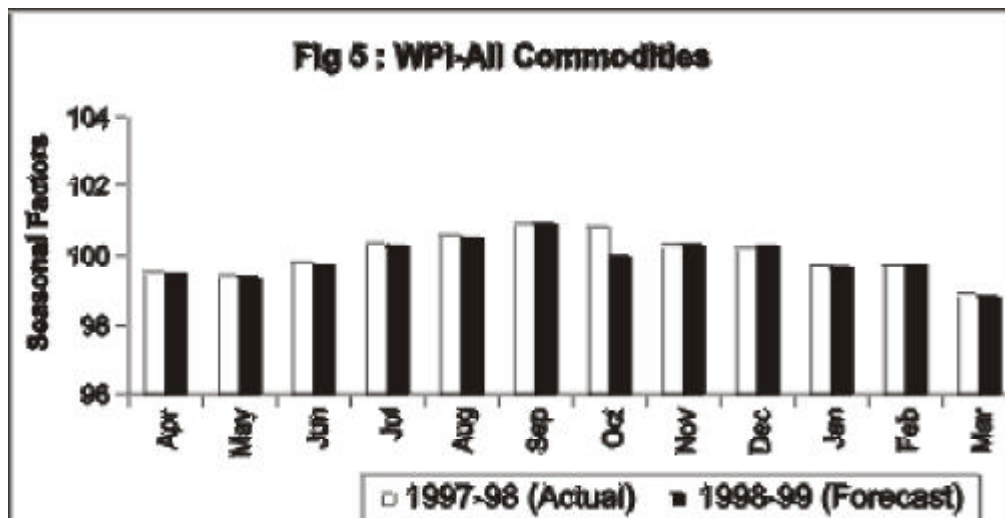
There has been a general moderation in the seasonal behaviour of major price series. The exception observed is in respect of Wholesale Price Index (WPI)-*Minerals* for which the range of variation of seasonal factors has been increasing over the years. During 1997-98, WPI-*All Commodities* registered its peak seasonal factors in September and trough in March which is

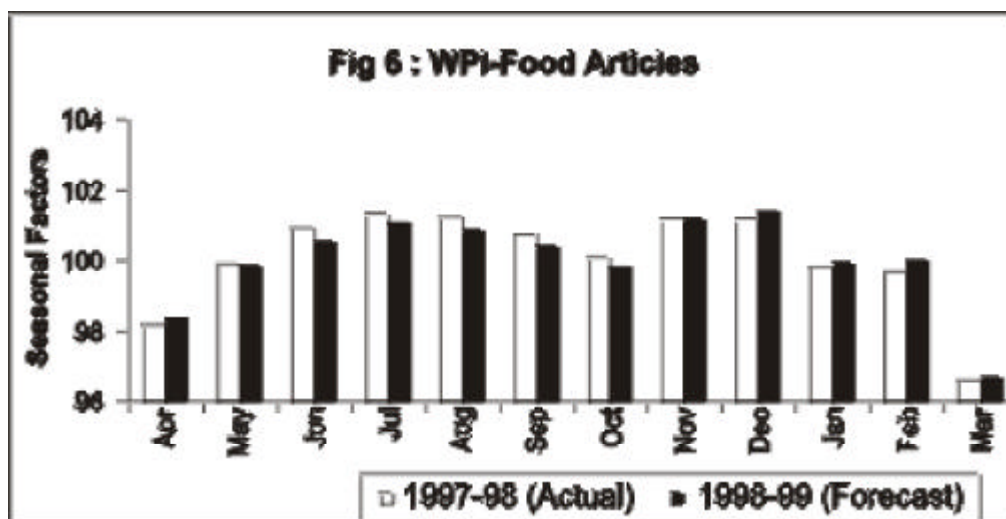


consistent with its average behaviour over the last ten years. The seasonal movement of WPI-All Commodities is also consistent with that of WPI-Manufacturing which has a share of over 57 per cent in the former. The seasonal behaviour of WPI-Manufactured Products can be seen in direct contrast to that of IIP-Manufacturing though the former had much less seasonality than the latter. The seasonality in production of manufactured goods had clear impact on their prices and the seasonal movement of the two were nearly opposite with the peak of one being

the trough of the other and vice-versa. Among the WPI series, WPI-Fruits and Vegetables observed the maximum range of variation of seasonality although the range was decreasing over the years, and had come down from 20.44 in 1988-89 to 7.56 in 1997-98. During 1997-98, seasonal peak for WPI-Primary Articles occurred in December particularly due to low agricultural output as against the 10-year average peak in August.

However, the seasonal trough of WPI-Primary Articles remained in March, the same

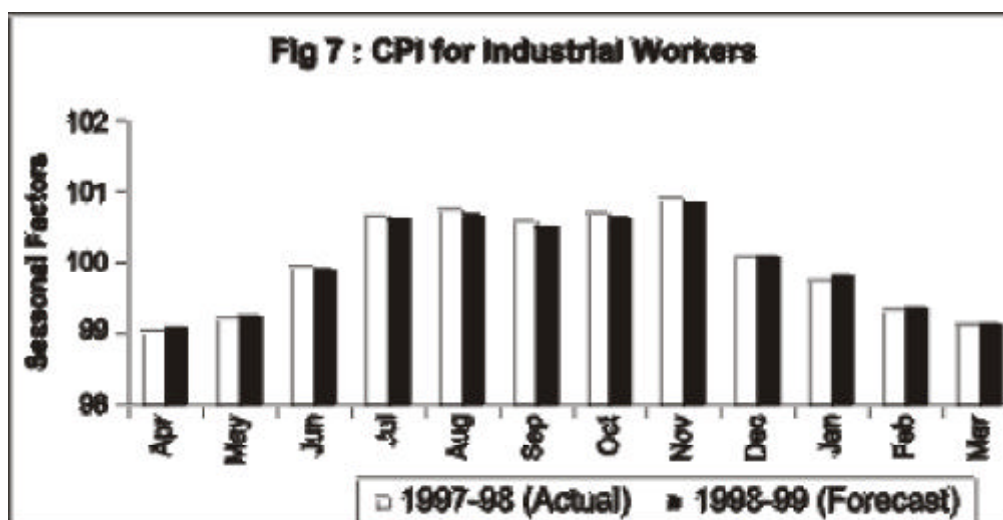


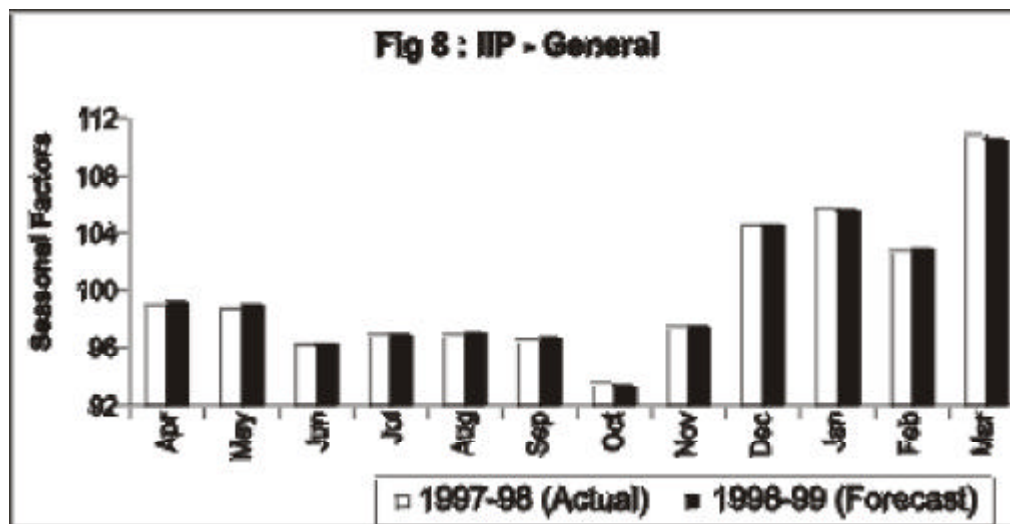


as in last 10-year average. Seasonal factors of WPI-Food Articles have been stable for the last ten years with peak in July/August and trough in March. During 1997-98, seasonal peak of WPI-Cereals, a sub-subgroup of WPI-Food Articles, occurred in December with a seasonal trough in May. The two items under WPI-Cereals, viz., WPI-Rice & WPI-Wheat had distinctly different seasonal patterns. This is largely because Rice is mainly a *Kharif* crop and Wheat a *Rabi* crop and their prices have seasonal peaks in August and February, respectively, a month before their harvesting season.

C. Consumer Price Index for Industrial Workers

During 1997-98, the *CPI-IW* series attained its seasonal peak in November and trough in April, as against 10-year average seasonal trough in March. Seasonal behaviour of WPI-All Commodities and CPI-IW were similar. Like WPI, the seasonal variation in CPI-IW has also been decreasing over the years. However, with average range 2.43 and standard deviation 0.30, this series had shown more seasonal variation than WPI-All Commodities.



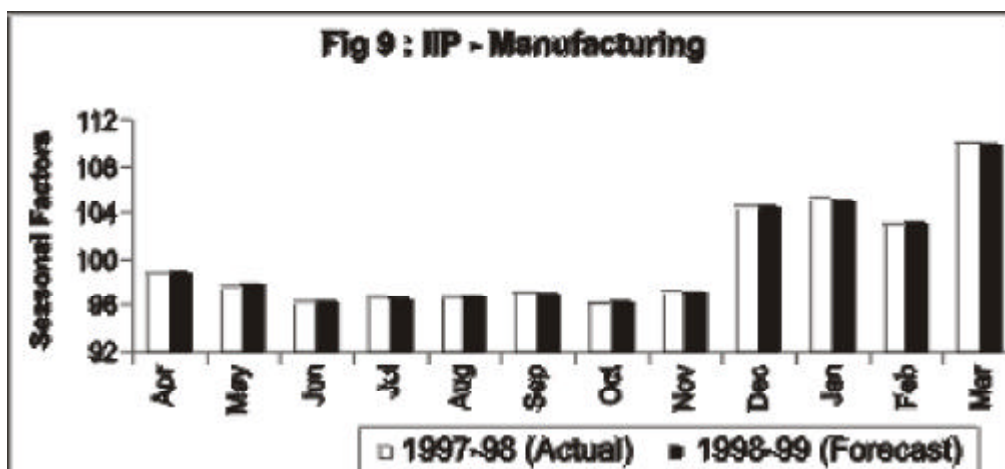


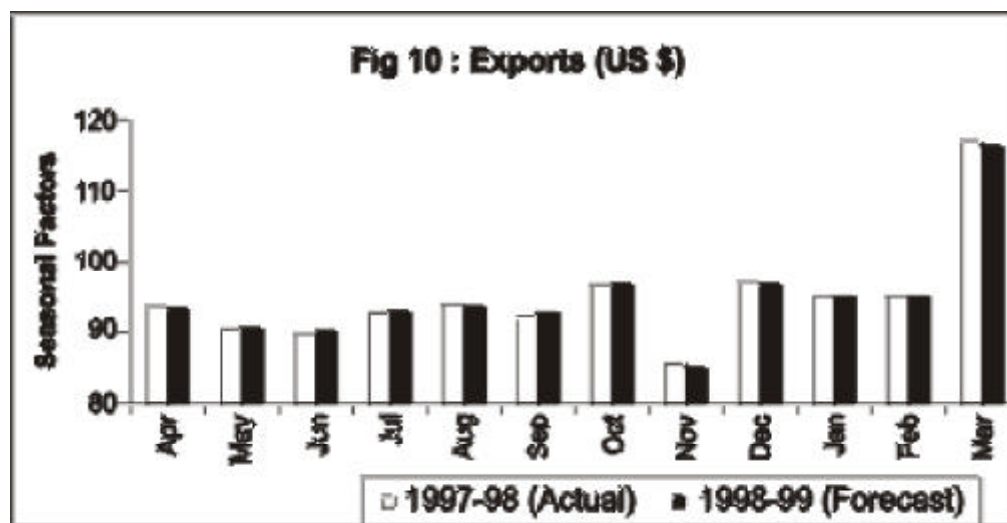
D. Index of Industrial Production (IIP)

Most of the IIP subgroups considered here have strong seasonal patterns, closely related to busy and slack seasons of the economy. The seasonal peak for all the IIP series generally occurred in March, but the trough periods occurred in different months for different series. The range of seasonal variation for IIP-*General* has been decreasing over the years. The seasonality in IIP-*Food Products* can be seen in contrast to the seasonal behaviour in WPI-*Food Articles* reflecting its input prices. Among the Use-based classified groups, IIP-*Capital Goods*

Industries showed the maximum range of seasonal variation although it has been decreasing over time. IIP-*Consumer Durables* and IIP-*Consumer Non-Durables* had the peak in March but troughs occurred in April and October, respectively.

The range of variation for both these Consumer Goods groups remained high. However, the range of seasonal variation for IIP-*Consumer Durables* has been decreasing over the years. Among all the subgroups of IIP-*Manufacturing*, only IIP-*Metal Products & Parts except Machinery & Transport Equipments* showed increasing range of





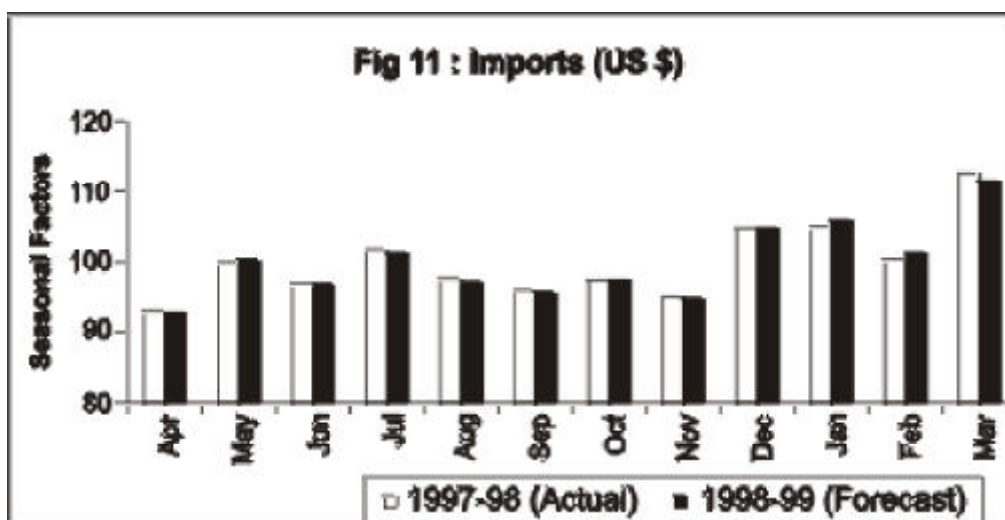
variation, whereas IIP-*Electricity* did not exhibit any change in seasonal pattern over the years. IIP-*Transport Equipment & Parts* showed high seasonality without any change in seasonal pattern. The seasonal variations for all other sub groups have been decreasing over the years.

E External Trade

The peak month for both *Export* (US Dollar terms) and *Imports* (US Dollar terms) occurred in March during 1997-98. The

seasonal trough for export occurred in November. Average range of seasonal factors for *Exports* was very high at 30.76 with a standard deviation of 1.73 while the corresponding figures for *Imports* were 19.84 and 1.72, respectively. The two components of *Imports*, viz., *Oil Imports* and *Non-Oil Imports*, exhibited distinctly different seasonal behaviour.

During 1997-98, *Oil imports* had seasonal peak in December while for *Non-Oil Imports*, it occurred in March. The trough



months for the two series occurred in September and April, respectively. The range of variation of seasonal factors for *Oil Imports* has been decreasing over the course of time, starting from 41.55 in 1988-89 to 21.40 in 1997-98 whereas for the *Non-Oil Imports*

this range has been increasing after 1990-91. *Total imports* exhibited same peak and trough months as *Non-Oil Imports* which constituted nearly 75-80 percent of *Total Imports*.

TABLE 1 : MONTHLY SEASONAL FACTORS OF SELECTED ECONOMIC TIME SERIES (April-March)

Series	Year	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	Peak Value	Peak Month	Trough Value	Trough Month
A. MONETARY AND BANKING INDICATORS																	
1. MONEY STOCK MEASURES AND BANK CREDIT TO GOVERNMENT																	
A. 1.1 Broad Money (M3)	1997-98	101.68	100.94	100.81	100.05	99.15	99.91	99.82	99.37	98.94	99.04	98.92	101.40	101.68	APR	98.92	FEB
	AVERAGE	101.52	101.14	100.65	99.75	99.00	99.93	99.87	99.70	99.45	99.31	99.24	100.42	101.52	APR	99.00	AUG
	1998-99	101.65	100.92	100.88	100.06	99.18	99.89	99.76	99.30	98.89	99.02	98.91	101.40	101.65	APR	98.89	DEC
A. 1.1.1 Narrow Money (M1)	1997-98	103.34	103.24	102.51	100.43	97.71	98.27	99.16	98.87	97.86	98.03	97.99	102.49	103.34	APR	97.71	AUG
	AVERAGE	102.83	103.62	102.31	99.74	97.10	98.44	99.21	99.47	98.56	98.53	98.86	101.15	103.62	MAY	97.10	AUG
	1998-99	103.34	103.16	102.51	100.42	97.74	98.29	99.16	98.84	97.84	98.03	97.92	102.54	103.34	APR	97.74	AUG
A. 1.1.1.1 Currency with the Public	1997-98	103.37	105.34	103.89	100.53	97.28	95.24	98.16	99.71	99.25	98.68	99.45	99.07	105.34	MAY	95.24	SEP
	AVERAGE	104.03	105.96	103.46	99.43	96.96	95.22	98.09	99.07	98.76	99.13	100.01	99.80	105.96	MAY	95.22	SEP
	1998-99	103.36	105.27	103.89	100.64	97.26	95.25	98.17	99.78	99.30	98.54	99.30	99.04	105.27	MAY	95.25	SEP
A. 1.1.2 Net Bank Credit to Government	1997-98	101.51	101.61	101.64	102.67	100.16	98.87	99.44	99.60	98.85	98.50	97.98	99.25	102.67	JUL	97.98	FEB
	AVERAGE	100.91	101.40	101.00	102.09	100.52	99.45	99.87	100.23	98.59	98.43	98.37	98.01	102.09	JUL	98.01	MAR
	1998-99	101.52	101.57	101.66	102.60	100.10	98.86	99.41	99.63	98.90	98.40	98.00	99.22	102.60	JUL	98.00	FEB
A. 1.1.2.1 Net RBI Credit to Government	1997-98	103.89	104.29	104.27	105.81	98.90	95.79	98.09	98.39	97.42	97.65	96.10	99.19	105.81	JUL	95.79	SEP
	AVERAGE	101.83	102.84	102.37	103.77	100.01	97.58	99.00	99.99	97.54	99.08	98.12	97.35	103.77	JUL	97.35	MAR
	1998-99	104.00	104.43	104.39	105.87	98.80	95.68	98.04	98.30	97.48	97.62	95.99	99.24	105.87	JUL	95.68	SEP
A. 1.1.3 Bank Credit to Commercial Sector	1997-98	102.19	100.63	99.74	99.69	97.78	98.52	99.23	98.70	98.70	100.65	100.76	103.42	103.42	MAR	97.78	AUG
	AVERAGE	102.50	101.06	99.99	99.49	98.04	98.67	99.56	98.76	99.23	100.26	100.25	102.37	102.50	APR	98.04	AUG
	1998-99	102.17	100.60	99.81	99.75	97.80	98.52	99.18	98.59	98.60	100.65	100.74	103.41	103.41	MAR	97.80	AUG
A. 1.2 Reserve Money	1997-98	102.23	101.77	103.30	100.62	99.12	96.89	98.96	97.31	99.08	99.23	98.71	102.70	103.30	JUN	96.89	SEP
	AVERAGE	102.99	103.33	102.16	99.74	99.18	97.57	99.65	98.50	98.05	98.95	99.04	101.03	103.33	MAY	97.57	SEP
	1998-99	102.25	101.72	103.37	100.59	99.04	96.84	99.01	97.25	99.11	99.23	98.63	102.79	103.37	JUN	96.84	SEP
2. MAJOR LIABILITIES OF THE RESERVE BANK OF INDIA AND SCHEDULED COMMERCIAL BANKS																	
(i) Reserve Bank of India Deposits (Banking Department)																	
A. 2.1	1997-98	99.18	95.75	99.52	108.45	102.50	100.43	98.35	96.59	99.25	101.50	98.54	99.28	108.45	JUL	95.75	MAY
	AVERAGE	100.86	97.74	98.04	103.12	102.27	102.17	100.64	98.05	96.41	100.73	98.99	101.14	103.12	JUL	96.41	DEC
	1998-99	99.28	95.88	99.67	108.62	102.42	100.42	98.32	96.59	99.27	101.54	98.34	99.05	108.62	JUL	95.88	MAY
(ii) Scheduled Commercial Banks																	
A. 2.2	1997-98	90.03	95.31	106.77	113.32	105.82	103.60	93.59	91.32	104.15	99.10	101.35	95.30	113.32	JUL	90.03	APR
	AVERAGE	98.76	93.82	96.86	105.91	109.45	113.34	100.13	94.47	98.30	101.79	99.13	89.18	113.34	SEP	89.18	MAR
	1998-99	90.20	96.04	107.91	112.90	105.15	103.05	93.93	91.58	104.01	98.46	101.08	95.84	112.90	JUL	90.20	APR

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Series	Year	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	Peak Value	Peak Month	Trough Value	Trough Month
A. 2.3 Aggregate Deposits	1997-98	100.79	100.31	100.28	99.88	99.68	100.99	100.14	99.14	99.03	98.86	99.52	101.42	101.42	MAR	98.86	JAN
	AVERAGE	100.54	100.09	99.90	99.97	99.91	101.26	100.09	99.47	99.75	99.27	99.27	99.47	101.26	101.26	SEP	99.27
A. 2.3.1 Demand Deposits	1997-98	100.81	100.29	100.33	99.83	99.62	100.95	100.16	99.17	98.95	98.85	99.51	101.41	101.41	MAR	98.85	JAN
	AVERAGE	101.41	100.06	100.96	98.80	96.85	102.36	98.02	97.45	98.85	98.63	98.98	107.69	107.69	MAR	96.85	AUG
A. 2.3.2 Time Deposits	1997-98	101.60	99.97	99.77	98.54	97.33	102.32	98.18	99.40	100.27	99.38	100.03	103.25	103.25	MAR	97.33	AUG
	AVERAGE	101.18	100.04	101.22	98.82	96.88	102.43	97.95	97.44	98.67	98.50	98.83	107.95	107.95	MAR	96.88	AUG
3. MAJOR ASSETS OF THE RESERVE BANK OF INDIA AND SCHEDULED COMMERCIAL BANKS	1997-98	100.63	100.23	100.06	100.04	100.19	100.91	100.36	99.52	99.26	99.20	99.58	100.09	100.91	SEP	99.20	JAN
	AVERAGE	100.36	99.95	99.97	100.21	100.43	101.17	100.31	99.52	99.60	99.43	99.40	99.62	101.17	SEP	99.40	FEB
A. 3.1 Reserve Bank of India Rupee Securities	1997-98	100.65	100.22	100.07	99.97	100.11	100.88	100.37	99.55	99.24	99.16	99.58	100.04	100.88	SEP	99.16	JAN
	AVERAGE	105.54	106.04	103.68	99.00	95.82	93.72	98.41	99.49	98.12	99.59	99.94	101.04	106.04	MAY	93.72	SEP
A. 3.2 Balances held Abroad	1997-98	104.85	106.83	104.35	99.31	96.75	94.36	98.42	99.16	97.64	98.66	99.56	100.32	106.83	MAY	94.36	SEP
	AVERAGE	105.72	105.83	103.52	98.99	95.66	93.51	98.20	99.57	98.17	99.76	99.96	101.23	105.83	MAY	93.51	SEP
A. 3.3 Loans and Advances	1997-98	102.75	98.58	98.61	102.44	97.64	98.42	100.15	95.48	102.32	101.38	96.40	106.59	106.59	MAR	95.48	NOV
	AVERAGE	101.68	98.16	99.20	98.76	92.41	91.34	96.73	94.37	106.05	99.28	101.73	117.66	117.66	MAR	91.34	SEP
A. 3.4 Investments	1997-98	102.67	98.14	98.45	102.36	97.55	98.20	99.85	95.46	102.44	101.99	96.43	106.69	106.69	MAR	95.46	NOV
	AVERAGE	101.44	91.37	91.46	83.58	88.01	89.32	91.58	86.53	117.29	118.20	125.88	114.94	125.88	FEB	83.58	JUL
A. 3.5 Cash in Hand and Balances with RBI	1997-98	114.03	96.80	92.54	83.36	87.53	97.28	96.90	85.06	105.02	107.68	110.70	126.10	126.10	MAR	83.36	JUL
	AVERAGE	100.84	91.45	91.64	83.14	88.46	88.65	91.80	86.45	117.53	118.16	126.53	114.27	126.53	FEB	83.14	JUL
A. 3.6 Asset with Banking System	1997-98	93.70	97.61	111.95	120.51	109.90	102.50	93.92	103.11	93.12	95.69	90.08	86.07	120.51	JUL	86.07	MAR
	AVERAGE	93.64	96.15	102.34	111.45	106.98	101.69	96.87	102.74	97.05	101.44	97.43	90.02	111.45	JUL	90.02	MAR
A. 3.7 Bank Credit	1997-98	93.67	98.47	112.99	120.43	109.37	103.17	94.45	103.01	93.10	95.50	89.94	85.07	120.43	JUL	85.07	MAR
	AVERAGE	98.94	99.68	100.34	104.06	102.94	99.58	95.48	94.02	101.42	102.97	101.14	99.08	104.06	JUL	94.02	NOV
A. 3.8 Asset with Banking System	1997-98	102.66	97.29	99.24	100.94	104.74	103.92	100.46	95.92	98.66	102.14	99.99	94.76	104.74	AUG	94.76	MAR
	AVERAGE	98.79	100.09	100.54	103.96	102.73	99.40	95.39	94.12	101.51	103.00	101.01	99.01	103.96	JUL	94.12	NOV
A. 3.9 Bank Credit	1997-98	98.77	101.24	105.23	110.94	99.86	98.40	96.21	91.81	98.57	95.37	99.14	102.71	110.94	JUL	91.81	NOV
	AVERAGE	111.82	99.41	95.54	99.89	108.64	104.35	100.77	87.32	97.05	98.04	99.60	98.54	111.82	APR	87.32	NOV
A. 3.10 Bank Credit	1997-98	99.64	102.65	106.58	110.21	98.14	98.12	96.42	93.12	98.39	95.24	98.43	102.20	110.21	JUL	93.12	NOV
	AVERAGE	101.76	100.87	99.74	99.11	97.40	98.39	98.90	98.67	99.47	101.08	101.24	103.35	103.35	MAR	97.40	AUG
A. 3.11 Bank Credit	1997-98	102.55	101.36	100.16	99.30	97.53	98.86	99.10	98.58	99.79	100.65	100.36	102.09	102.55	APR	97.53	AUG
	AVERAGE	101.75	100.87	99.80	99.16	97.51	98.31	98.87	98.65	99.30	101.02	101.20	103.36	103.36	MAR	97.51	AUG

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Series	Year	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	Peak Value	Peak Month	Trough Value	Trough Month
A. 3.7.1 Loans, Cash Credits and Overdrafts	1997-98	101.50	100.82	99.78	98.91	97.45	98.91	99.23	98.63	99.50	100.93	100.96	103.44	103.44	MAR	97.45	AUG
	AVERAGE	102.20	101.48	100.56	99.38	97.81	99.04	99.44	98.55	99.50	100.38	100.15	101.89	102.20	APR	97.81	AUG
	1998-99	101.52	100.80	99.81	98.98	97.41	98.85	99.15	98.64	99.37	100.90	100.91	103.50	103.50	MAR	97.41	AUG
A. 3.7.2 Food Credit	1997-98	92.38	112.16	112.84	106.69	99.65	90.18	98.87	98.64	102.99	99.96	96.08	99.00	112.84	JUN	89.00	MAR
	AVERAGE	93.90	116.80	115.92	109.14	97.20	86.11	91.93	98.10	99.90	100.74	98.62	92.73	116.80	MAY	86.11	SEP
	1998-99	92.71	112.64	113.26	106.81	99.67	90.00	98.54	103.15	100.09	97.95	95.88	99.01	113.26	JUN	89.01	MAR
A. 3.8 Investments	1997-98	99.65	99.89	100.56	101.12	101.73	100.25	100.10	99.79	99.45	99.53	98.93	98.92	101.73	AUG	98.92	MAR
	AVERAGE	100.43	99.70	99.98	100.56	100.92	100.54	100.31	99.78	99.94	99.74	99.09	98.94	100.92	AUG	98.94	MAR
	1998-99	99.51	99.86	100.60	101.25	101.84	100.30	100.15	99.80	99.31	99.47	98.84	98.78	101.84	AUG	98.78	MAR
B. INDEX NUMBERS OF WHOLESALE PRICES (1981-82=100)	1997-98	99.75	99.72	99.90	100.17	100.30	100.45	100.40	100.16	100.11	99.86	99.84	99.45	100.45	SEP	99.45	MAR
	AVERAGE	99.48	99.61	100.01	100.34	100.77	100.81	100.71	100.23	99.76	99.68	99.48	99.18	100.81	SEP	99.18	MAR
	1998-99	99.74	99.69	99.85	100.13	100.25	100.44	100.40	100.16	100.12	99.83	99.84	99.42	100.44	SEP	99.42	MAR
B. 1 WPI - Primary Articles	1997-98	99.58	99.78	99.91	100.25	100.37	100.31	100.09	100.06	100.42	100.27	100.23	99.00	100.42	DEC	99.00	MAR
	AVERAGE	98.54	99.19	101.16	101.04	101.27	100.69	100.28	99.86	99.75	99.43	98.27	101.61	AUG	98.27	MAR	
	1998-99	99.60	99.75	99.81	100.14	100.27	100.23	100.07	100.06	100.45	100.29	100.28	99.00	100.45	DEC	99.00	MAR
B. 1.1 WPI - Food Articles	1997-98	99.08	99.95	100.47	100.67	100.61	100.36	100.04	100.59	100.59	99.90	99.84	98.30	100.67	JUL	98.30	MAR
	AVERAGE	97.95	99.28	100.97	101.77	102.32	101.82	101.08	100.68	99.53	98.87	98.52	97.40	102.32	AUG	97.40	MAR
	1998-99	99.17	99.92	100.27	100.53	100.43	100.21	99.91	100.59	100.69	99.97	100.01	98.34	100.69	DEC	98.34	MAR
B. 1.1.1 WPI - Foodgrains (Cereals + Pulses)	1997-98	98.59	98.07	98.76	100.03	100.97	100.79	99.78	100.28	100.43	101.14	100.96	100.17	101.14	JAN	98.07	MAY
	AVERAGE	99.56	98.67	99.13	99.61	99.94	99.69	99.17	100.12	101.10	101.12	101.34	100.48	101.34	FEB	98.67	MAY
	1998-99	99.36	98.35	98.93	99.69	100.22	100.30	99.52	100.24	101.40	100.62	100.62	100.61	101.40	DEC	98.35	MAY
B. 1.1.1.1 WPI - Cereals	1997-98	98.73	97.98	98.63	100.15	100.94	100.70	99.47	99.91	100.43	101.33	101.07	100.56	101.33	JAN	97.98	MAY
	AVERAGE	99.36	98.34	98.97	99.65	100.19	100.27	99.53	100.22	101.46	100.59	100.60	100.59	101.46	DEC	98.34	MAY
	1998-99	99.69	95.45	95.48	96.00	96.16	96.83	97.98	100.96	104.24	105.62	107.05	105.24	107.05	FEB	95.45	MAY
B. 1.1.1.1.1 WPI - Wheat	1997-98	98.07	94.05	95.76	97.26	98.33	98.45	98.07	99.98	102.27	106.01	107.45	104.08	107.45	FEB	94.05	MAY
	AVERAGE	99.62	95.27	95.29	95.76	95.87	96.65	97.93	101.00	104.42	105.88	107.14	105.34	107.14	FEB	95.27	MAY
	1998-99	98.35	99.06	100.11	101.17	102.06	101.78	101.09	100.68	100.17	99.02	98.18	98.28	102.06	AUG	98.18	FEB
B. 1.1.1.1.1.1 WPI - Rice	1997-98	98.42	98.94	99.77	101.06	102.07	102.05	101.28	100.66	99.69	98.86	98.62	98.20	102.07	AUG	98.42	APR
	AVERAGE	98.42	99.09	100.13	101.19	102.04	101.80	101.08	100.58	100.05	99.04	98.18	98.23	102.04	AUG	98.18	FEB
	1998-99	100.32	101.30	100.98	99.28	99.87	99.11	98.64	100.20	100.64	100.94	99.48	98.86	101.30	MAY	98.64	OCT
B. 1.1.1.1.2 WPI - Pulses	1997-98	98.13	98.53	99.52	99.69	101.19	101.08	101.52	102.02	100.58	100.07	99.53	97.96	102.02	NOV	97.96	MAR
	AVERAGE	100.67	101.67	101.25	99.24	99.68	98.90	98.43	99.86	100.57	101.10	99.55	98.98	101.67	MAY	98.43	OCT
	1998-99	100.67	101.67	101.25	99.24	99.68	98.90	98.43	99.86	100.57	101.10	99.55	98.98	101.67	MAY	98.43	OCT

TABLE 1 : MONTHLY SEASONAL FACTORS OF SELECTED ECONOMIC TIME SERIES (April-March)

Series	Year	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	Peak Value	Peak Month	Trough Value	Trough Month
B. 1.1.2 WPI - Fruits & Vegetables	1997-98	99.87	101.34	101.53	101.51	101.00	102.13	102.84	103.13	99.74	96.60	96.15	95.57	103.13	NOV	95.57	MAR
	AVERAGE	97.90	100.30	104.62	106.51	105.83	104.66	103.73	102.10	97.01	92.72	92.59	92.59	106.51	JUL	92.59	FEB
B. 1.2 WPI - Fibres	1997-98	99.74	101.13	100.72	101.02	100.69	101.86	102.77	103.09	100.25	97.06	96.49	95.60	103.09	NOV	95.60	MAR
	AVERAGE	102.82	101.52	100.96	100.79	102.22	100.58	98.10	97.08	97.08	98.69	100.17	100.33	102.82	APR	97.08	NOV
B. 1.3 WPI - Oilseeds	1997-98	101.53	100.50	99.11	99.00	100.63	101.00	100.07	99.69	98.54	100.37	99.83	98.50	101.53	APR	98.54	DEC
	AVERAGE	97.84	98.92	98.83	100.85	102.38	102.91	100.85	99.23	99.73	100.43	99.66	98.44	102.91	SEP	97.84	APR
B. 1.4 WPI - Minerals	1997-98	97.00	97.58	98.22	100.57	102.36	103.14	101.89	101.18	101.18	100.59	99.56	96.65	103.14	SEP	96.65	MAR
	AVERAGE	97.94	98.87	98.91	100.76	102.36	102.90	100.83	99.12	99.72	100.35	99.58	98.52	102.90	SEP	97.94	APR
B. 2 WPI - Fuel, Power, Lights & Lubricants	1997-98	99.35	99.64	99.66	100.60	100.23	100.36	100.19	100.23	100.05	100.05	99.93	99.65	100.60	JUL	99.35	APR
	AVERAGE	99.75	99.85	99.90	100.68	100.61	100.32	100.04	99.95	99.83	99.87	99.75	99.50	100.68	JUL	99.50	MAR
B. 3 WPI - Manufactured Products	1997-98	99.33	99.62	99.62	100.55	100.16	100.35	100.19	100.25	100.06	100.04	99.93	99.67	100.55	JUL	99.33	APR
	AVERAGE	100.04	99.39	99.36	99.56	100.10	100.82	100.83	100.79	100.03	99.45	99.67	99.95	100.83	OCT	99.36	JUN
B. 3.1 WPI - Food Products	1997-98	100.32	99.85	99.31	99.33	99.70	100.15	100.26	100.33	100.00	99.83	100.22	100.47	100.47	MAR	99.33	JUL
	AVERAGE	100.02	99.35	99.33	99.52	100.10	100.90	100.88	100.85	100.02	99.40	99.61	99.82	100.90	SEP	99.33	JUN
B. 3.1.1 WPI - Sugar	1997-98	99.78	99.89	99.96	100.07	100.28	100.40	100.47	100.21	100.03	99.92	99.64	99.51	100.47	OCT	99.51	MAR
	AVERAGE	99.82	99.89	99.96	100.27	100.57	100.83	100.62	100.05	99.62	99.62	99.42	99.41	100.83	SEP	99.41	MAR
B. 3.1.2 WPI - Edible Oils	1997-98	99.75	99.79	99.92	100.05	100.26	100.40	100.48	100.21	100.04	99.90	99.59	99.47	100.48	OCT	99.47	MAR
	AVERAGE	98.09	98.65	99.78	100.81	101.83	102.55	101.89	100.73	100.28	99.22	98.55	97.82	102.55	SEP	97.82	MAR
B. 3.1.2 WPI - Edible Oils	1997-98	98.42	99.09	100.12	101.40	102.57	102.84	102.30	100.42	98.98	98.45	98.12	97.54	102.84	SEP	97.54	MAR
	AVERAGE	98.05	98.56	99.70	100.75	101.82	102.52	101.93	100.75	100.29	99.21	98.52	97.79	102.52	SEP	97.79	MAR
B. 3.1.1 WPI - Sugar	1997-98	100.50	101.27	101.41	100.98	100.69	100.25	99.18	99.07	98.66	99.23	99.17	99.65	101.41	JUN	98.66	DEC
	AVERAGE	100.14	100.75	101.15	101.17	101.19	100.93	99.97	99.29	98.03	98.44	99.23	99.64	101.19	AUG	98.03	DEC
B. 3.1.2 WPI - Edible Oils	1997-98	100.45	101.18	101.39	100.95	100.77	100.25	99.19	99.09	98.68	99.20	99.10	99.59	101.39	JUN	98.68	DEC
	AVERAGE	99.23	99.83	99.58	100.02	100.76	101.10	100.56	99.99	99.97	100.39	99.36	99.31	101.10	SEP	99.23	APR
C. CONSUMER PRICE INDEX FOR INDUSTRIAL WORKERS (1982=100)	1997-98	98.85	98.56	99.26	100.30	101.61	101.25	101.84	100.86	100.42	100.05	98.62	98.39	101.84	OCT	98.39	MAR
	AVERAGE	99.29	99.94	99.62	99.95	100.60	101.01	100.40	99.96	99.98	100.42	99.40	99.34	101.01	SEP	99.29	APR
D. INDEX OF INDUSTRIAL PRODUCTION (1993-94=100)	1997-98	99.04	99.23	99.95	100.65	100.74	100.58	100.71	100.91	100.09	99.75	99.34	99.13	100.91	NOV	99.04	APR
	AVERAGE	98.86	99.07	99.93	100.80	100.87	101.09	101.10	101.11	100.10	99.24	99.07	98.78	101.11	NOV	98.78	MAR
D. INDEX OF INDUSTRIAL PRODUCTION IIP - General Index	1997-98	99.08	99.24	99.91	100.61	100.68	100.51	100.63	100.84	100.10	99.82	99.37	99.13	100.84	NOV	99.08	APR
	AVERAGE	98.97	98.72	96.22	96.97	96.92	96.65	93.60	97.56	104.64	105.71	102.74	110.85	110.85	MAR	93.60	OCT
D. INDEX OF INDUSTRIAL PRODUCTION IIP - General Index	1997-98	96.36	96.26	95.76	95.83	95.40	95.92	94.83	97.88	105.13	106.16	102.88	116.58	116.58	MAR	94.83	OCT
	AVERAGE	99.18	98.94	96.31	96.98	97.03	96.69	93.40	97.45	104.60	105.64	102.88	110.56	110.56	MAR	93.40	OCT

TABLE 1 : MONTHLY SEASONAL FACTORS OF SELECTED ECONOMIC TIME SERIES (April-March)

Series	Year	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	Peak Value	Peak Month	Trough Value	Trough Month
D. 2.2.4 IIP - Non-metallic Mineral Products	1997-98	102.19	100.01	100.40	101.09	97.47	94.80	97.73	92.67	98.42	103.72	102.84	108.77	108.77	MAR	92.67	NOV
	AVERAGE	99.58	100.34	99.70	100.81	97.75	94.80	97.73	95.36	98.01	104.63	100.02	110.70	110.70	MAR	94.80	SEP
	1998-99	102.16	100.04	100.50	101.08	97.12	94.79	97.83	92.48	98.35	104.04	102.90	108.56	108.56	MAR	92.48	NOV
D. 2.2.5 IIP for Basic Metal and Alloy Industries	1997-98	94.84	96.63	95.50	98.94	100.63	98.92	101.57	99.03	101.39	105.61	99.75	108.41	108.41	MAR	94.84	APR
	AVERAGE	93.47	94.79	96.15	98.14	100.54	98.79	101.76	100.87	103.37	104.58	98.85	108.08	108.08	MAR	93.47	APR
	1998-99	94.64	96.36	94.99	98.69	100.26	98.83	101.69	98.98	101.56	105.77	99.95	108.80	108.80	MAR	94.64	APR
D. 2.2.6 IIP - Metal Products & Parts except Machinery & Transport Equipments	1997-98	99.89	95.32	99.43	94.21	94.47	98.45	97.27	101.35	105.08	102.75	103.85	108.17	108.17	MAR	94.21	JUL
	AVERAGE	100.69	96.34	98.31	97.55	96.36	99.14	97.61	99.12	103.31	101.91	101.98	108.28	108.28	MAR	96.34	MAY
	1998-99	99.50	95.00	100.43	93.80	94.30	98.33	97.35	101.39	105.05	102.66	104.16	107.77	107.77	MAR	93.80	JUL
D. 2.2.7 IIP - Machinery, Machine Tools & Parts	1997-98	89.82	91.29	95.56	95.63	96.22	101.40	96.48	99.39	108.25	105.03	104.70	114.60	114.60	MAR	89.82	APR
	AVERAGE	84.65	88.00	96.14	89.12	90.88	99.80	91.72	96.23	106.14	103.31	107.33	143.63	143.63	MAR	84.65	APR
	1998-99	90.57	91.52	95.90	96.09	96.47	101.17	96.75	99.26	108.12	104.84	104.72	113.74	113.74	MAR	90.57	APR
D. 2.2.8 IIP - Transport Equipment & Parts	1997-98	86.53	95.78	97.66	99.23	95.37	101.83	95.22	98.06	103.52	103.46	106.79	115.72	115.72	MAR	86.53	APR
	AVERAGE	87.60	96.01	96.45	97.17	96.45	99.73	94.50	97.18	105.95	104.10	104.18	120.67	120.67	MAR	87.60	APR
	1998-99	86.72	96.10	97.89	99.54	95.17	102.18	95.04	98.19	103.24	103.16	106.93	115.34	115.34	MAR	86.72	APR
D. 2.3 IIP - Electricity	1997-98	99.34	102.68	95.59	98.60	98.69	96.79	99.67	97.65	103.11	104.19	97.61	106.10	106.10	MAR	95.59	JUN
	AVERAGE	99.60	101.63	95.34	97.52	98.46	96.99	101.13	98.13	103.60	104.94	96.96	105.59	105.59	MAR	95.34	JUN
	1998-99	99.34	102.60	95.59	98.74	98.69	96.78	99.61	97.61	103.00	104.24	97.54	106.12	106.12	MAR	95.59	JUN
E. EXTERNAL TRADE (in US \$)	1997-98	98.80	95.41	94.79	97.78	98.94	97.44	101.79	90.38	102.22	99.98	100.03	121.93	121.93	MAR	90.38	NOV
	AVERAGE	99.72	94.80	91.62	95.66	98.30	97.22	98.80	92.80	103.55	104.91	100.84	121.19	121.19	MAR	91.62	JUN
	1998-99	98.46	95.78	95.18	98.12	98.67	97.73	101.97	90.11	101.91	99.98	100.18	121.31	121.31	MAR	90.11	NOV
E. 2 Imports	1997-98	92.96	99.94	96.84	101.76	97.65	95.95	97.26	95.13	104.80	105.00	100.34	112.65	112.65	MAR	92.96	APR
	AVERAGE	93.45	96.97	99.61	98.80	95.51	99.74	98.68	97.94	108.34	101.74	98.50	110.59	110.59	MAR	93.45	APR
	1998-99	92.86	100.38	96.90	101.19	97.20	95.70	97.47	94.79	104.59	105.86	101.28	111.43	111.43	MAR	92.86	APR
E. 2.1 Oil Imports	1997-98	100.14	98.08	96.17	91.86	92.92	90.87	98.18	103.13	112.28	105.38	102.75	109.29	112.28	DEC	90.87	SEP
	AVERAGE	95.48	91.13	98.63	90.23	93.73	92.23	101.36	108.23	115.07	106.57	102.85	103.02	115.07	DEC	90.23	JUL
	1998-99	98.97	98.38	96.26	90.62	92.33	92.02	98.49	102.78	112.84	105.50	103.28	108.38	112.84	DEC	90.62	JUL
E. 2.2 Non-Oil Imports	1997-98	90.26	99.41	95.64	103.82	97.92	96.71	95.16	92.50	106.01	104.64	104.00	114.27	114.27	MAR	90.26	APR
	AVERAGE	92.61	99.03	97.36	102.63	96.40	99.43	97.51	94.22	108.03	101.01	99.47	112.72	112.72	MAR	92.61	APR
	1998-99	90.48	99.87	95.71	103.30	97.44	95.74	94.95	92.10	106.06	105.74	105.46	113.08	113.08	MAR	90.48	APR

Note : (1) Average figures relate for a sample period of 10 years (1988-89 to 1997-98).

(2) Figures for 1998-99 are the forecasts of seasonal factors.

TABLE 2 : RANGE (Difference between Maximum and Minimum) of Seasonal Factors

Series	Year	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	Average	Standard Deviation
Broad Money (M3)		1.92	2.06	2.26	2.48	2.74	2.86	2.83	2.95	2.91	2.75	2.58	0.36
Narrow Money (M1)		6.02	6.33	6.77	7.13	7.41	7.28	6.81	6.24	5.74	5.63	6.54	0.60
Currency with the Public		11.35	11.33	11.23	10.96	10.85	10.60	10.43	10.30	10.26	10.10	10.74	0.45
Net Bank Credit to Government		4.33	4.38	4.26	4.24	4.24	4.25	4.61	4.84	4.83	4.69	4.47	0.24
Net RBI Credit to Government		5.95	6.12	6.16	6.16	6.68	7.72	8.47	9.14	9.71	10.03	7.61	1.53
Bank Credit to Commercial Sector		4.07	4.18	4.30	4.38	4.60	4.71	4.92	5.24	5.53	5.64	4.76	0.53
Reserve Money		6.97	7.04	7.17	6.88	6.30	5.53	5.31	5.75	6.18	6.41	6.36	0.63
Deposits (Banking Department)		9.71	9.57	9.68	9.25	7.57	8.55	11.17	12.28	12.63	12.70	10.31	1.70
Liabilities to the Banking System (SCBs)		25.87	25.98	31.74	34.59	36.31	31.45	28.83	26.84	24.48	23.29	28.94	4.18
Aggregate Deposits (SCBs)		2.33	2.24	2.00	1.86	1.94	1.98	2.07	2.19	2.44	2.56	2.16	0.22
Demand Deposits (SCBs)		6.02	5.75	5.30	4.72	5.16	6.43	7.83	9.08	10.19	10.84	7.13	2.10
Time Deposits (SCBs)		1.97	1.99	1.91	1.91	1.90	1.90	1.92	1.90	1.81	1.72	1.89	0.07
Government of India Rupee Securities		12.67	12.72	12.76	12.59	12.52	12.33	12.22	12.23	12.34	12.32	12.47	0.20
Balances held Abroad		56.10	52.09	45.01	35.70	25.09	20.15	15.48	13.14	11.45	11.11	28.53	16.50
Loans and Advances (RBI)		56.63	54.96	53.67	49.62	47.99	43.43	37.45	36.43	40.11	42.30	46.26	6.99
Investments (RBI)		13.71	14.06	14.09	15.17	17.49	21.24	25.28	29.32	32.33	34.44	21.71	7.66
Cash in Hand and Balances with RBI		17.51	16.45	16.11	14.91	12.56	12.88	12.31	10.98	10.43	10.04	13.42	2.53
Asset with Banking System (SCBs)		39.55	39.06	37.00	35.64	32.00	29.66	25.69	24.89	22.35	19.13	30.50	6.91
Bank Credit (SCBs)		5.13	5.20	5.25	5.21	5.29	5.23	5.13	5.53	5.87	5.95	5.38	0.29
Loans, Cash Credits and Overdrafts (SCBs)		4.73	4.76	4.75	4.61	4.49	4.31	4.41	5.00	5.63	5.99	4.87	0.51

TABLE 2 : RANGE (Difference between Maximum and Minimum) of Seasonal Factors

Series	Year	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	Average	Standard Deviation
Food Credit (SCBs)		47.05	44.46	41.00	36.34	30.75	25.24	22.04	21.33	22.68	23.85	31.47	9.45
Investments (SCBs)		2.46	2.32	1.99	1.81	1.71	1.60	1.82	2.23	2.55	2.81	2.13	0.38
WPI - All Commodities		2.11	2.09	1.93	1.90	1.86	1.71	1.53	1.36	1.11	1.00	1.66	0.37
WPI - Primary Articles		4.52	4.50	4.48	4.30	3.99	3.52	2.97	2.37	1.75	1.41	3.38	1.13
WPI - Food Articles		6.58	6.50	6.24	5.93	5.59	5.03	4.43	3.67	2.88	2.37	4.92	1.45
WPI - Foodgrains		4.10	4.10	3.98	3.80	3.44	2.94	2.46	2.30	2.40	2.58	3.21	0.72
WPI - Cereals		4.42	4.40	4.39	4.14	3.67	3.09	2.56	2.60	2.89	3.05	3.52	0.73
WPI - Wheat		16.50	16.24	15.85	14.93	13.62	12.17	11.17	10.83	11.10	11.60	13.40	2.18
WPI - Rice		4.13	3.91	3.74	3.60	3.52	3.52	3.60	3.83	3.89	3.88	3.76	0.19
WPI - Pulses		8.00	7.26	6.22	5.32	4.74	4.25	3.47	2.88	2.16	2.66	4.70	1.89
WPI - Fruits & Vegetables		20.44	19.83	18.76	17.50	16.22	14.39	12.29	9.79	7.86	7.56	14.46	4.62
WPI - Fibres		8.77	8.65	8.23	7.46	6.82	6.63	6.39	5.27	4.00	3.29	6.55	1.78
WPI - Oilseeds		6.31	6.45	6.64	7.49	8.09	8.09	7.67	6.68	5.57	5.07	6.80	0.97
WPI - Minerals		0.73	0.70	0.87	1.49	1.91	1.98	1.79	1.42	1.31	1.25	1.34	0.44
WPI - Fuel, Power, Light & Lubricants		1.39	1.38	1.63	1.68	1.61	1.33	1.07	1.28	1.33	1.47	1.42	0.18
WPI - Manufactured Products		1.90	1.89	1.80	1.72	1.59	1.39	1.21	1.11	0.97	0.96	1.45	0.35
WPI - Food Products		5.76	5.74	5.64	5.50	5.33	5.33	5.30	5.15	4.89	4.73	5.34	0.33
WPI - Sugar		3.75	3.89	4.00	3.88	3.76	3.74	3.61	3.36	3.00	2.75	3.57	0.39
WPI - Edible Oils		4.37	4.32	4.42	4.50	4.50	4.26	3.70	2.90	2.18	1.86	3.70	0.96
Consumer Price Index for Industrial Workers		2.78	2.76	2.64	2.60	2.57	2.49	2.37	2.21	1.97	1.87	2.43	0.30
IIP - General		27.32	27.11	26.45	24.94	22.89	20.91	19.10	17.93	17.50	17.24	22.14	3.90
IIP - Basic Industries		17.52	17.64	17.89	17.94	17.80	17.49	16.83	16.11	15.63	15.45	17.03	0.91
IIP - Capital Goods Industries		81.22	80.26	78.38	75.04	70.05	64.30	58.62	53.24	48.88	45.97	65.59	12.65

TABLE 2 : RANGE (Difference between Maximum and Minimum) of Seasonal Factors

Series	Year	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	Average	Standard Deviation
IIP - Intermediate Goods Industries		8.73	8.26	7.51	6.84	6.57	6.32	5.98	5.85	5.69	5.64	6.74	1.04
IIP - Consumer Goods Industries		24.78	24.56	24.05	23.16	22.10	21.44	21.03	21.16	21.56	21.97	22.58	1.36
IIP - Consumer Durables		32.47	31.66	30.46	28.60	26.37	24.22	22.34	20.77	19.71	19.25	25.59	4.77
IIP - Consumer Non-Durables		24.13	23.91	23.41	22.82	22.62	22.29	21.77	22.51	22.99	23.42	22.99	0.70
IIP - Mining		30.59	30.68	30.84	30.36	29.26	27.60	25.92	24.51	23.94	23.69	27.74	2.83
IIP - Manufacturing		23.64	23.53	23.36	22.48	20.92	18.73	16.44	14.85	14.17	13.81	19.19	3.88
IIP - Food Products		78.83	79.93	80.96	80.85	78.65	74.15	68.20	63.60	64.30	65.50	73.50	6.94
IIP - Rubber, Plastic, Petroleum & Coal Products		13.21	12.89	12.38	11.84	11.29	10.89	9.24	7.28	6.60	7.04	10.27	2.40
IIP - Chemicals and Chemical Products (Except Petroleum & Coal Prods.)		11.81	11.72	11.53	10.70	9.32	8.60	7.44	6.89	7.12	7.24	9.24	1.95
IIP - Non-metallic Mineral Products		19.39	18.69	17.81	16.72	15.68	16.03	16.04	16.10	15.93	16.10	16.85	1.24
IIP for Basic Metal and Alloy Industries		18.87	18.11	17.34	15.78	13.81	12.47	11.93	12.01	12.60	13.57	14.65	2.52
IIP - Metal Products & Parts except Machinery & Transport Equipments		10.46	10.49	11.46	11.92	12.58	12.97	12.67	13.03	13.51	13.96	12.30	1.14
IIP - Machinery, Machine Tools & Parts		87.31	86.62	83.55	76.74	67.11	55.97	44.71	34.88	28.20	24.78	58.99	23.37
IIP - Transport Equipment & Parts		33.13	33.24	34.02	34.86	35.18	34.80	33.73	32.13	30.44	29.19	33.07	1.87
IIP - Electricity		10.21	10.28	10.52	10.51	10.48	10.46	10.38	10.28	10.36	10.51	10.40	0.11
Exports (US \$ million)		33.81	32.95	31.41	29.82	28.88	28.27	28.91	30.43	31.59	31.56	30.76	1.73
Imports (US \$ million)		22.28	20.81	18.24	16.57	17.72	19.84	21.42	21.08	20.74	19.69	19.84	1.72
Oil Imports (US \$ million)		41.55	40.07	35.80	29.46	22.49	20.29	21.33	21.81	21.44	21.40	27.57	8.06
Non-Oil Imports (US \$ million)		16.45	15.85	15.32	16.26	19.52	21.93	24.29	24.73	25.20	24.01	20.36	3.90

STATEMENT 1: SEASONAL FACTORS OF SELECTED SERIES FOR THE LAST TEN YEARS

	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1. Broad Money - M3												
1988-89	100.97	100.95	100.87	99.56	99.05	100.13	99.75	99.63	99.96	99.56	99.56	99.81
1989-90	101.07	101.07	100.87	99.57	99.02	100.08	99.78	99.69	99.89	99.54	99.53	99.82
1990-91	101.23	101.18	100.75	99.56	98.97	100.00	99.83	99.79	99.81	99.55	99.59	99.92
1991-92	101.35	101.21	100.55	99.55	98.87	99.90	99.88	99.89	99.66	99.44	99.47	99.95
1992-93	101.61	101.32	100.44	99.63	98.87	99.84	99.93	99.93	99.50	99.35	99.34	100.13
1993-94	101.75	101.31	100.42	99.72	98.89	99.81	99.97	99.89	99.37	99.28	99.16	100.37
1994-95	101.82	101.22	100.47	99.83	98.99	99.83	99.96	99.74	99.24	99.19	99.01	100.67
1995-96	101.83	101.10	100.59	99.95	99.06	99.88	99.91	99.58	99.10	99.07	98.88	100.91
1996-97	101.83	101.06	100.75	100.05	99.14	99.91	99.86	99.45	99.03	99.06	98.92	101.26
1997-98	101.68	100.94	100.81	100.05	99.15	99.91	99.82	99.37	98.94	99.04	98.92	101.40
2. Reserve Money												
1988-89	103.66	104.79	101.60	97.82	98.58	98.14	100.74	99.43	97.92	97.96	98.49	100.64
1989-90	103.75	104.73	101.57	98.16	98.63	98.06	100.69	99.45	97.68	98.19	98.66	100.36
1990-91	103.65	104.62	101.47	98.67	98.79	98.06	100.46	99.37	97.45	98.62	98.98	100.23
1991-92	103.37	104.19	101.39	99.31	99.06	97.93	100.14	99.11	97.31	98.99	99.17	100.06
1992-93	103.09	103.71	101.69	99.97	99.46	97.76	99.65	98.72	97.41	99.32	99.45	100.10
1993-94	102.87	103.00	102.04	100.53	99.68	97.47	99.27	98.39	97.73	99.39	99.55	100.48
1994-95	102.61	102.46	102.49	100.81	99.69	97.30	98.90	98.04	98.20	99.26	99.38	101.18
1995-96	102.46	102.14	102.87	100.86	99.53	97.12	98.85	97.72	98.69	99.24	99.15	102.01
1996-97	102.21	101.88	103.17	100.69	99.29	96.99	98.85	97.42	99.01	99.25	98.87	102.53
1997-98	102.23	101.77	103.30	100.62	99.12	96.89	98.96	97.31	99.08	99.23	98.71	102.70
3. Aggregate Deposits - SCBs												
1988-89	100.11	99.60	99.68	99.88	99.78	101.62	100.17	100.08	100.38	99.72	99.29	99.45
1989-90	100.20	99.71	99.72	99.92	99.79	101.57	100.17	100.04	100.30	99.70	99.34	99.42
1990-91	100.33	99.83	99.72	99.91	99.84	101.49	100.18	99.91	100.22	99.66	99.49	99.55
1991-92	100.37	99.93	99.67	99.90	99.93	101.35	100.12	99.69	100.04	99.49	99.52	99.65
1992-93	100.57	100.14	99.73	99.98	100.04	101.25	100.09	99.43	99.88	99.31	99.55	99.91
1993-94	100.65	100.28	99.83	100.07	100.11	101.14	100.00	99.23	99.69	99.16	99.53	100.23
1994-95	100.72	100.34	99.98	100.10	100.09	101.08	99.98	99.08	99.51	99.01	99.50	100.61
1995-96	100.77	100.37	100.12	100.06	100.00	101.05	99.99	99.03	99.29	98.87	99.43	100.94
1996-97	100.87	100.39	100.26	100.00	99.85	101.04	100.08	99.08	99.16	98.86	99.50	101.30
1997-98	100.79	100.31	100.28	99.88	99.68	100.99	100.14	99.14	99.03	98.86	99.52	101.42

STATEMENT 1: SEASONAL FACTORS OF SELECTED SERIES FOR THE LAST TEN YEARS

	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
4. Bank Credit - SCBs												
1988-89	102.93	101.55	100.93	99.44	97.79	99.68	99.15	98.51	99.61	99.64	99.12	101.45
1989-90	103.03	101.65	100.88	99.49	97.83	99.56	99.17	98.48	99.62	99.75	99.24	101.40
1990-91	103.06	101.70	100.71	99.50	97.81	99.30	99.21	98.49	99.70	100.08	99.58	101.44
1991-92	102.94	101.64	100.35	99.47	97.72	98.99	99.21	98.48	99.79	100.42	99.94	101.41
1992-93	102.86	101.62	100.09	99.38	97.56	98.76	99.20	98.52	99.97	100.80	100.37	101.61
1993-94	102.62	101.43	99.82	99.27	97.39	98.58	99.13	98.60	100.10	101.09	100.76	101.96
1994-95	102.31	101.20	99.70	99.15	97.26	98.48	99.07	98.65	100.09	101.24	101.03	102.39
1995-96	102.05	101.01	99.64	99.10	97.24	98.45	98.98	98.67	99.90	101.21	101.11	102.76
1996-97	101.92	100.97	99.73	99.10	97.30	98.44	98.94	98.69	99.70	101.17	101.23	103.17
1997-98	101.76	100.87	99.74	99.11	97.40	98.39	98.90	98.67	99.47	101.08	101.24	103.35
5. WPI - All Commodities												
1988-89	99.33	99.52	100.06	100.32	101.09	100.90	100.96	100.32	99.47	99.65	99.27	98.98
1989-90	99.35	99.53	100.06	100.36	101.09	100.94	100.96	100.32	99.51	99.65	99.29	99.00
1990-91	99.32	99.51	100.01	100.37	101.05	101.01	100.95	100.33	99.59	99.67	99.38	99.12
1991-92	99.24	99.45	99.95	100.36	100.95	101.00	100.89	100.28	99.63	99.63	99.38	99.10
1992-93	99.32	99.52	99.98	100.39	100.89	100.99	100.80	100.23	99.69	99.61	99.39	99.13
1993-94	99.43	99.61	100.01	100.41	100.78	100.88	100.68	100.20	99.77	99.60	99.44	99.17
1994-95	99.54	99.69	100.04	100.38	100.66	100.76	100.58	100.17	99.84	99.61	99.50	99.23
1995-96	99.68	99.77	100.04	100.33	100.52	100.61	100.47	100.13	99.92	99.67	99.58	99.25
1996-97	99.81	99.81	100.02	100.27	100.41	100.52	100.42	100.15	100.05	99.80	99.76	99.41
1997-98	99.75	99.72	99.90	100.17	100.30	100.45	100.40	100.16	100.11	99.86	99.84	99.45
6. WPI - Food Articles												
1988-89	97.23	98.79	100.99	102.54	103.45	102.73	101.67	100.59	98.71	98.53	97.76	96.87
1989-90	97.29	98.82	101.02	102.53	103.44	102.66	101.61	100.64	98.78	98.53	97.86	96.94
1990-91	97.31	98.84	101.02	102.40	103.34	102.59	101.55	100.71	98.93	98.54	98.03	97.10
1991-92	97.33	98.86	101.03	102.23	103.04	102.40	101.49	100.71	99.07	98.55	98.13	97.11
1992-93	97.52	99.03	101.12	101.99	102.77	102.23	101.39	100.75	99.27	98.54	98.18	97.18
1993-94	97.85	99.27	101.18	101.77	102.33	101.88	101.22	100.77	99.55	98.64	98.35	97.30
1994-95	98.24	99.49	101.11	101.44	101.90	101.53	100.97	100.78	99.86	98.78	98.59	97.47
1995-96	98.64	99.77	100.98	101.20	101.36	101.07	100.63	100.67	100.13	99.16	98.99	97.69
1996-97	98.97	99.96	100.77	100.90	100.96	100.71	100.31	100.64	100.41	99.58	99.47	98.08
1997-98	99.08	99.95	100.47	100.67	100.61	100.36	100.04	100.59	100.59	99.90	99.84	98.30

STATEMENT 1: SEASONAL FACTORS OF SELECTED SERIES FOR THE LAST TEN YEARS

	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
7. Consumer Price Index for Industrial Workers												
1988-89	98.83	99.03	99.82	100.80	100.76	101.37	101.22	101.13	100.16	99.15	98.99	98.59
1989-90	98.85	99.05	99.86	100.85	100.79	101.36	101.22	101.12	100.16	99.15	99.01	98.60
1990-91	98.82	99.03	99.85	100.86	100.82	101.34	101.23	101.15	100.19	99.19	99.11	98.70
1991-92	98.72	98.93	99.82	100.84	100.84	101.27	101.24	101.15	100.14	99.12	99.08	98.67
1992-93	98.75	98.95	99.90	100.86	100.93	101.23	101.25	101.19	100.08	99.07	99.03	98.68
1993-94	98.77	98.99	99.97	100.85	101.00	101.14	101.22	101.20	100.04	99.06	98.96	98.73
1994-95	98.84	99.07	100.02	100.81	101.02	101.03	101.12	101.18	100.02	99.12	98.94	98.81
1995-96	98.95	99.18	100.03	100.77	100.96	100.86	100.97	101.08	100.01	99.28	98.99	98.87
1996-97	99.07	99.27	100.05	100.73	100.87	100.72	100.83	101.02	100.05	99.55	99.21	99.05
1997-98	99.04	99.23	99.95	100.65	100.74	100.58	100.71	100.91	100.09	99.75	99.34	99.13
8. IIP - General Index												
1988-89	94.62	95.10	96.65	94.69	94.22	94.42	95.06	98.27	105.63	106.60	103.12	121.53
1989-90	94.69	95.02	96.42	94.85	94.21	94.73	95.15	98.21	105.49	106.59	103.25	121.32
1990-91	94.85	94.91	95.91	95.10	94.38	95.19	95.20	98.06	105.35	106.64	103.47	120.82
1991-92	95.00	94.92	95.40	95.32	94.61	95.63	95.32	97.91	105.26	106.50	103.40	119.55
1992-93	95.53	95.24	95.07	95.76	95.01	96.15	95.31	97.78	105.09	106.38	103.18	117.91
1993-94	96.20	95.91	95.02	95.99	95.45	96.51	95.29	97.78	105.07	106.03	102.72	115.93
1994-95	97.11	96.74	95.23	96.26	95.98	96.71	94.94	97.81	105.04	105.77	102.31	114.03
1995-96	97.94	97.67	95.65	96.52	96.47	96.63	94.47	97.77	104.97	105.61	102.14	112.40
1996-97	98.65	98.38	96.05	96.88	96.78	96.63	93.93	97.65	104.80	105.73	102.46	111.43
1997-98	98.97	98.72	96.22	96.97	96.92	96.65	93.60	97.56	104.64	105.71	102.74	110.85
9. IIP - Manufacturing												
1988-89	94.04	94.37	97.91	95.38	94.89	95.59	94.54	98.45	106.21	107.06	103.86	117.67
1989-90	94.06	94.24	97.70	95.50	94.88	95.97	94.58	98.49	106.24	107.09	103.70	117.59
1990-91	94.12	94.01	97.11	95.75	95.06	96.60	94.69	98.54	106.21	107.01	103.49	117.37
1991-92	94.23	93.95	96.48	95.90	95.32	97.20	94.91	98.61	106.22	106.65	103.05	116.43
1992-93	94.72	94.19	95.93	96.37	95.70	97.82	95.15	98.62	105.94	106.35	102.60	115.11
1993-94	95.52	94.79	95.75	96.48	96.08	98.06	95.49	98.62	105.82	105.83	102.16	113.52
1994-95	96.57	95.59	95.74	96.63	96.45	98.02	95.80	98.49	105.48	105.36	101.97	112.03
1995-96	97.61	96.58	95.99	96.65	96.73	97.59	95.99	98.13	105.16	105.12	102.16	110.84
1996-97	98.39	97.36	96.18	96.83	96.82	97.33	96.09	97.65	104.76	105.23	102.71	110.26
1997-98	98.79	97.73	96.29	96.71	96.78	97.11	96.17	97.33	104.59	105.23	103.05	109.98

STATEMENT 1: SEASONAL FACTORS OF SELECTED SERIES FOR THE LAST TEN YEARS

	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
10. Exports (US\$)												
1988-89	99.67	96.69	88.76	94.62	95.38	98.69	96.26	93.79	103.90	109.00	100.72	122.57
1989-90	99.60	96.09	88.96	94.45	96.03	98.68	96.47	94.03	103.99	108.70	100.91	121.91
1990-91	99.45	95.42	89.44	94.55	96.92	98.18	96.68	94.31	104.32	108.44	101.32	120.85
1991-92	99.33	94.53	90.01	94.63	98.26	97.45	97.28	94.32	104.21	107.50	101.57	119.83
1992-93	99.92	93.80	90.86	95.02	99.26	96.66	97.96	93.96	104.23	106.15	101.61	119.74
1993-94	100.25	93.31	91.92	95.29	99.96	96.12	99.04	93.27	103.75	104.47	101.18	120.19
1994-95	100.47	93.53	93.10	96.09	99.71	95.91	100.09	92.14	103.38	102.89	100.75	121.05
1995-96	100.04	94.25	93.92	96.68	99.50	96.23	100.95	91.24	102.83	101.50	100.20	121.67
1996-97	99.63	94.98	94.44	97.51	99.09	96.80	101.44	90.60	102.65	100.47	100.13	122.19
1997-98	98.80	95.41	94.79	97.78	98.94	97.44	101.79	90.38	102.22	99.98	100.03	121.93
11. Imports (US\$)												
1988-89	93.95	96.52	98.67	90.66	94.66	102.02	100.48	100.89	112.94	104.34	99.25	105.24
1989-90	93.76	96.29	99.36	91.77	94.57	101.92	100.18	100.86	112.58	103.19	99.22	105.53
1990-91	93.26	96.04	100.97	93.95	93.78	101.89	99.90	100.35	111.50	101.97	99.11	106.45
1991-92	93.62	95.34	101.71	96.66	93.61	101.97	99.28	99.52	110.18	100.30	98.55	108.31
1992-93	93.32	95.18	102.27	99.94	94.18	101.14	98.85	98.20	108.65	99.08	97.50	111.05
1993-94	93.67	95.74	100.97	102.53	95.48	99.99	98.21	97.30	107.09	98.50	96.96	113.51
1994-95	93.29	97.07	99.83	104.05	96.36	98.46	97.83	96.24	105.75	99.69	97.14	114.71
1995-96	93.53	98.32	98.05	103.73	97.17	97.57	97.48	95.71	105.06	101.53	97.91	114.62
1996-97	93.14	99.28	97.44	102.92	97.66	96.43	97.36	95.15	104.88	103.78	99.05	113.88
1997-98	92.96	99.94	96.84	101.76	97.65	95.95	97.26	95.13	104.80	105.00	100.34	112.65