

**Central Bank of Nigeria**



**Purchasing Managers'  
Index (PMI) Survey  
Report**

Statistics Department

*October 2019*

# PURCHASING MANAGERS' INDEX (PMI) OCTOBER 2019 REPORT

## 1.0 Introduction

The October 2019 PMI survey was conducted by the Statistics Department of the Central Bank of Nigeria during the period October 7-11, 2019. The respondents were purchasing and supply executives of manufacturing and non-manufacturing organizations in all 36 states in Nigeria and the Federal Capital Territory (FCT). The Bank makes no representation regarding the individual companies, other than the information they have provided. The data contained herein further provides input for policy decisions.

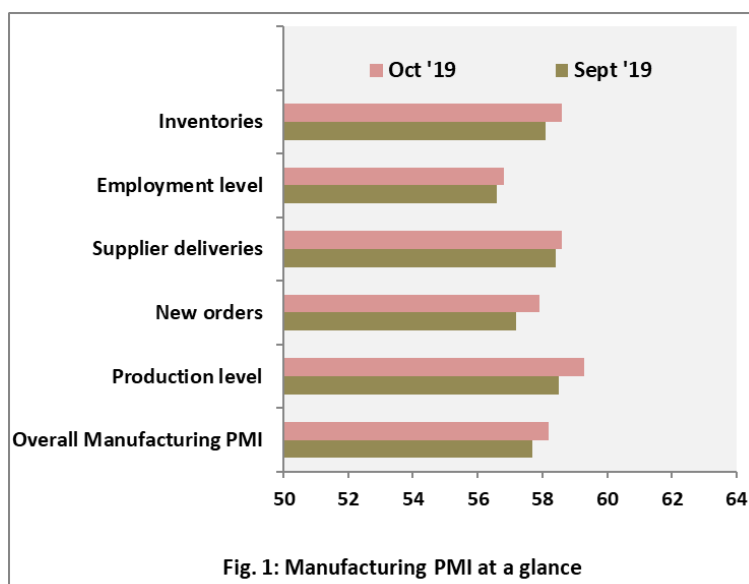
### 1.1 Data and Method of Presentation

The *Manufacturing and Non-Manufacturing PMI Report* on businesses is based on survey responses, indicating the *changes* in the level of business activities in the *current month* compared with the *preceding month*. For each of the indicators measured, this report shows the diffusion index of the responses. The diffusion index is computed as the percentage of *responses with positive change plus half* of the percentage of those reporting *no change*, except for supplier delivery time, which is computed as the percentage of *responses with negative change plus half* of the percentage of those reporting *no change*. The composite PMI for the manufacturing sector is computed as the *weighted average* of five diffusion indices, namely: production level, level of new orders, suppliers' delivery time, employment level and raw materials inventory/work in progress, with assigned weights of *25%, 30%, 15%, 10%* and *20%*, respectively. The composite PMI for the non-manufacturing sector is computed from four diffusion indices, namely: business activity, level of new orders, employment level and raw materials inventory, with equal weights of *25% each*.

*A composite PMI above 50 points indicates that the manufacturing/non-manufacturing economy is generally expanding, 50 points indicates no change and below 50 points indicates that it is generally contracting. The subsectors reporting growth are listed in the order of highest to lowest growth, while those reporting contraction are listed in the order of the highest to the lowest contraction.*

## 2.0 Manufacturing PMI Report

*Production level, new orders, supplier delivery time, employment level and raw materials inventories grew at a faster rate in October 2019*



The *Manufacturing PMI* in the month of October stood at 58.2 index points, indicating expansion in the manufacturing sector for the thirty-first consecutive month (Fig. 2 and Table 1). The index grew at a faster rate when compared to the index in September. Thirteen of the 14 surveyed subsectors reported growth in the review month in the following order: petroleum & coal products; cement; electrical equipment; furniture & related products; fabricated metal products; printing & related support activities; textile, apparel, leather & footwear; food, beverage & tobacco products; nonmetallic mineral products; plastics & rubber products; primary metal; chemical & pharmaceutical products; and transportation equipment. The paper products subsector recorded decline in the review period (Fig. 2 and Table 1).

### 2.1 Production Level

At 59.3 points, the production level index for manufacturing sector grew for the thirty-second consecutive month in October 2019. The index indicated a faster growth in the current month, when compared to its level in September 2019. Eleven of the 14 manufacturing subsectors recorded increased production level, while 3 recorded decline (Fig. 3 and Table 2).

### 2.2 New Orders

At 57.9 points, the new orders index grew for the thirty-first consecutive month, indicating increase in new orders in October 2019. The index grew at a faster rate, when compared to its level in September 2019. Nine subsectors reported growth, 2 remained unchanged, while 3 contracted in the review month (Fig. 4 and Table 3).

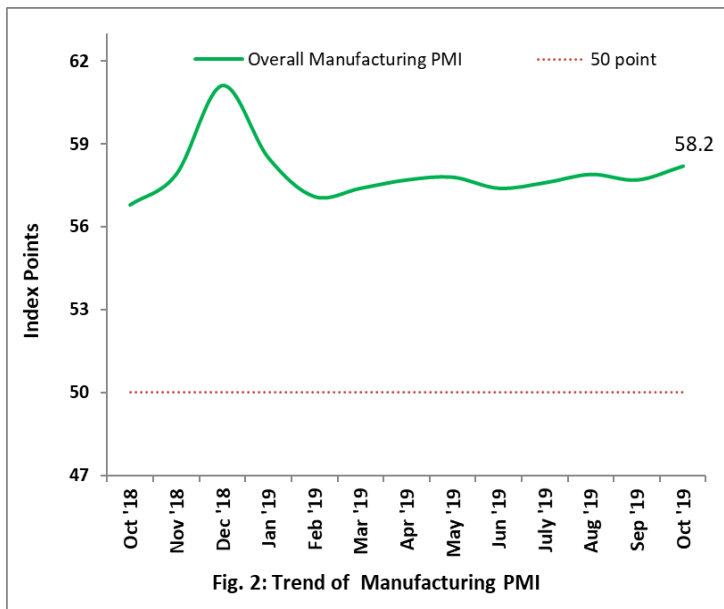


Fig. 2: Trend of Manufacturing PMI

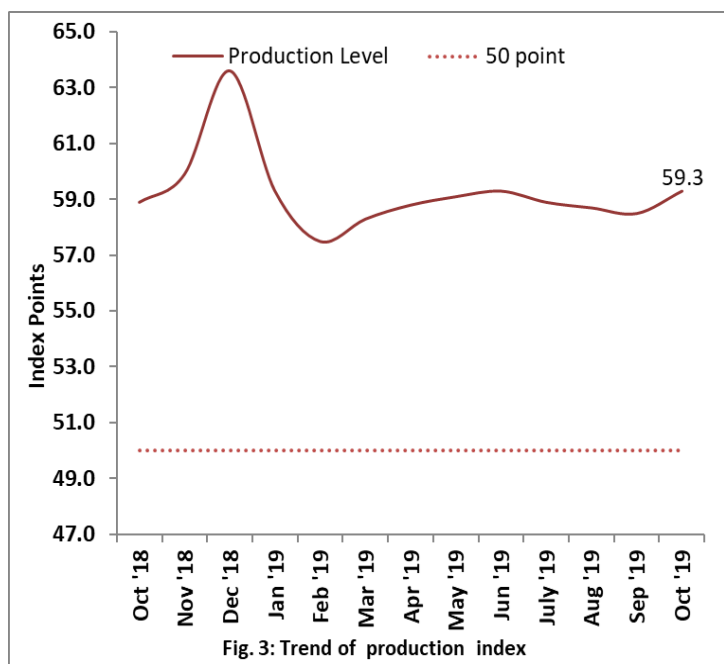


Fig. 3: Trend of production index

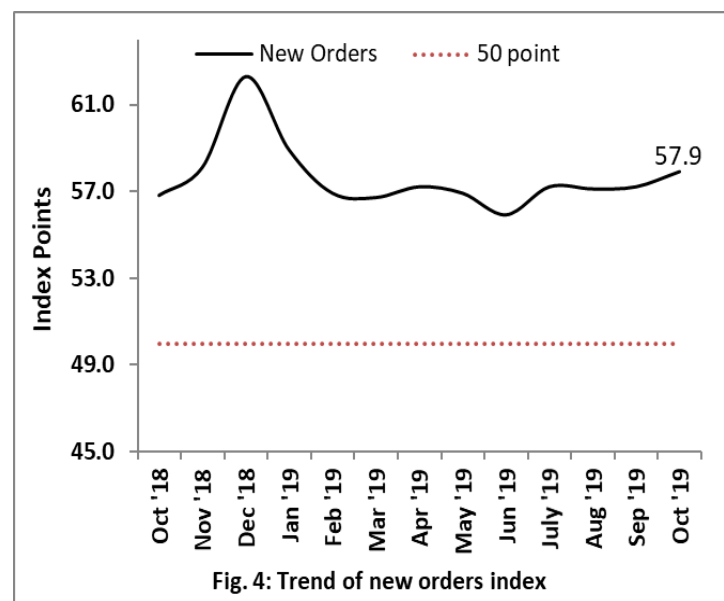


Fig. 4: Trend of new orders index

### 2.3 Supplier Delivery Time

The manufacturing supplier delivery time index stood at 58.6 points in October 2019, indicating faster supplier delivery time. The index has recorded growth for twenty-ninth consecutive months. Nine of the 14 subsectors recorded improved suppliers' delivery time, while 5 remained unchanged in the review period (Fig. 5 and Table 4).

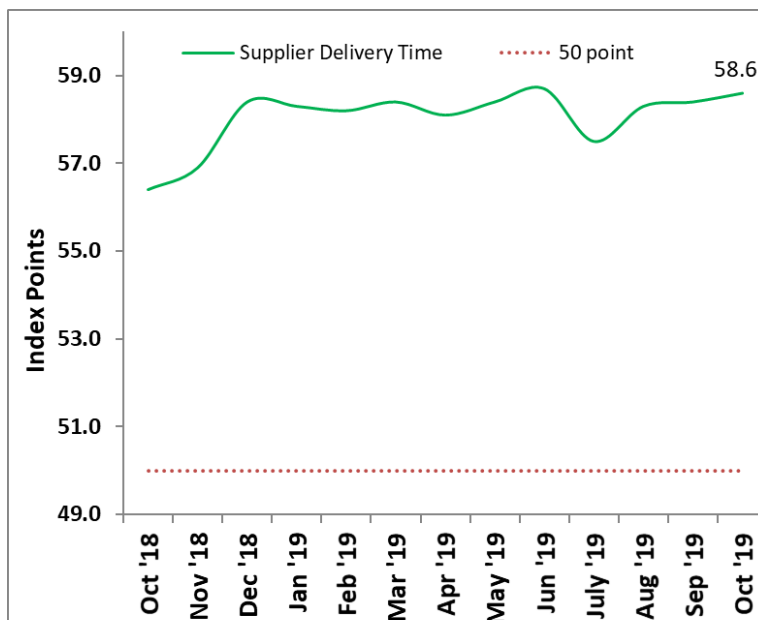


Fig. 5: Trend of supplier delivery time index

### 2.4 Employment Level

The employment level index for October 2019 stood at 56.8 points, indicating growth in employment level for the thirtieth consecutive month. Of the 14 subsectors, 11 reported increased employment level, 1 reported unchanged employment level while 2 reported decreased employment in the review month (Fig. 6 and Table 5).

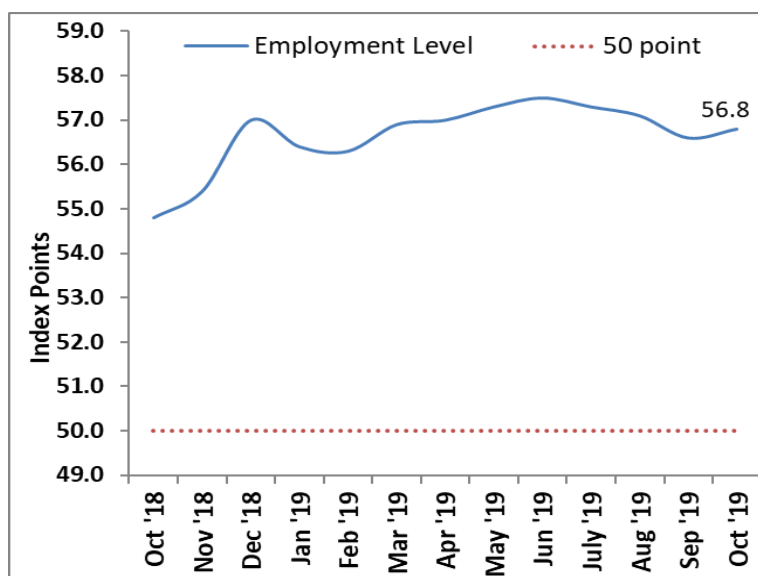


Fig. 6: Trend of manufacturing employment index

### 2.5 Raw material Inventories

The Manufacturing sector inventories index grew for the thirty-first consecutive month in October 2019. At 58.6 points, the index grew at a faster rate when compared to its level in September 2019. Ten of the 14 subsectors recorded growth, 2 remained unchanged, while 2 reported declined raw material inventories in the review month (Fig. 7 and Table 6).

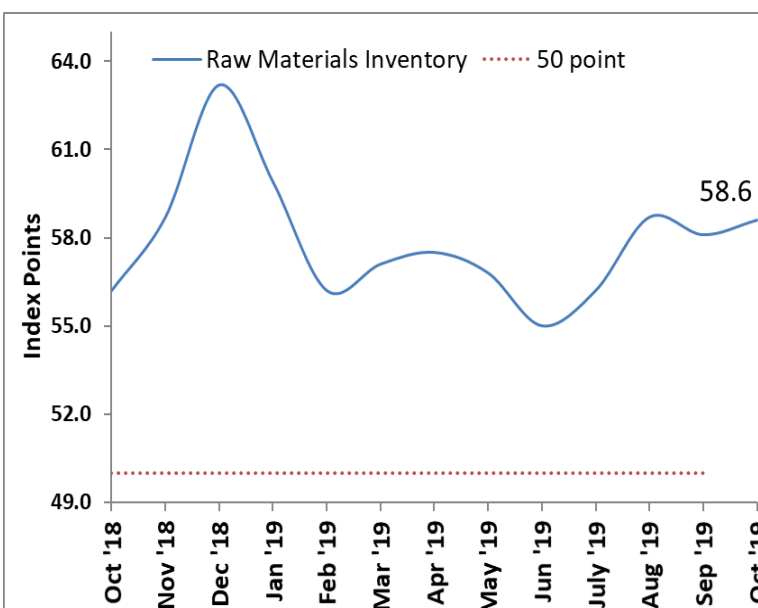


Fig. 7: Trend of raw material inventory index

### 3.0 Non-Manufacturing PMI Report

*Business activity, new orders and inventories grew at a faster rate, while employment level grew at a slower rate in October 2019*

The *composite PMI* for the *non-manufacturing* sector stood at 58.2 points in October 2019, indicating expansion in the Non-manufacturing PMI for the thirtieth consecutive month. The index grew at a faster rate when compared to its level in September 2019. Fifteen of the 17 surveyed subsectors recorded growth in the following order: repair, maintenance/washing of motor vehicles; transportation & warehousing; real estate rental & leasing; agriculture; utilities; finance & insurance; accommodation & food services; wholesale/retail trade; educational services; construction; information & communication; professional, scientific, & technical services; water supply, sewage & waste management; health care & social assistance; and electricity, gas, steam & air conditioning supply. The management of companies; and arts, entertainment & recreation subsectors contracted in the review period (Fig. 9 and Table 7).

#### 3.1 Business Activity

At 57.9 points, the business activity index grew for the thirty-first consecutive month, indicating expansion in non-manufacturing business activity in October 2019. Thirteen subsectors recorded growth in business activity, 3 remained unchanged, while 1 declined in the review month (Fig 10 Table 8).

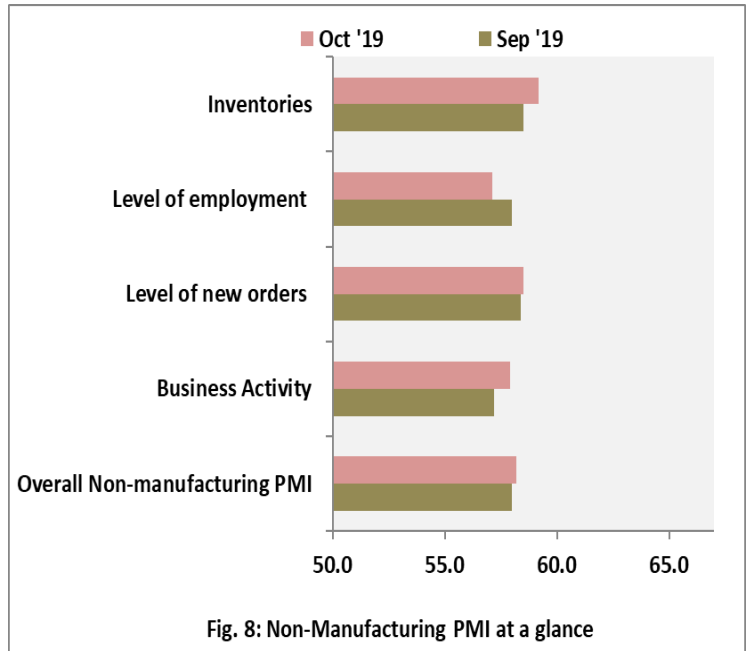


Fig. 8: Non-Manufacturing PMI at a glance

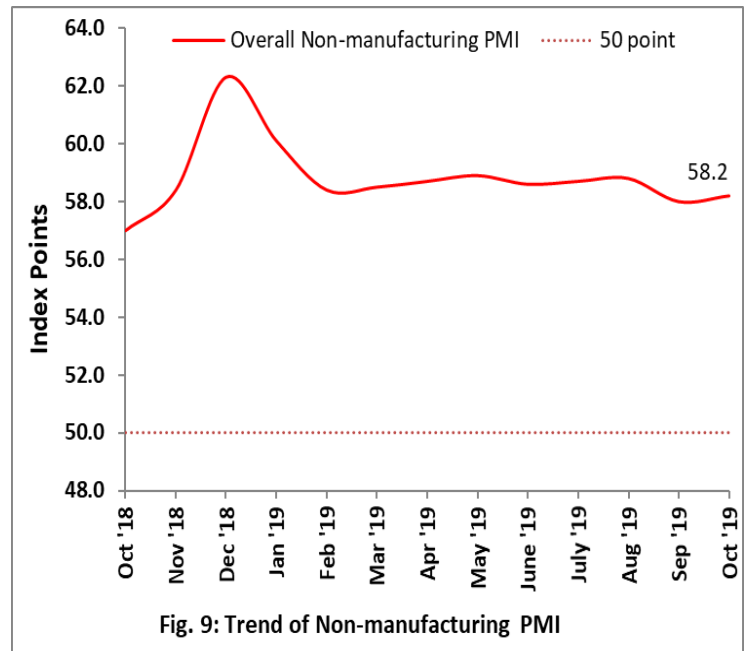


Fig. 9: Trend of Non-manufacturing PMI

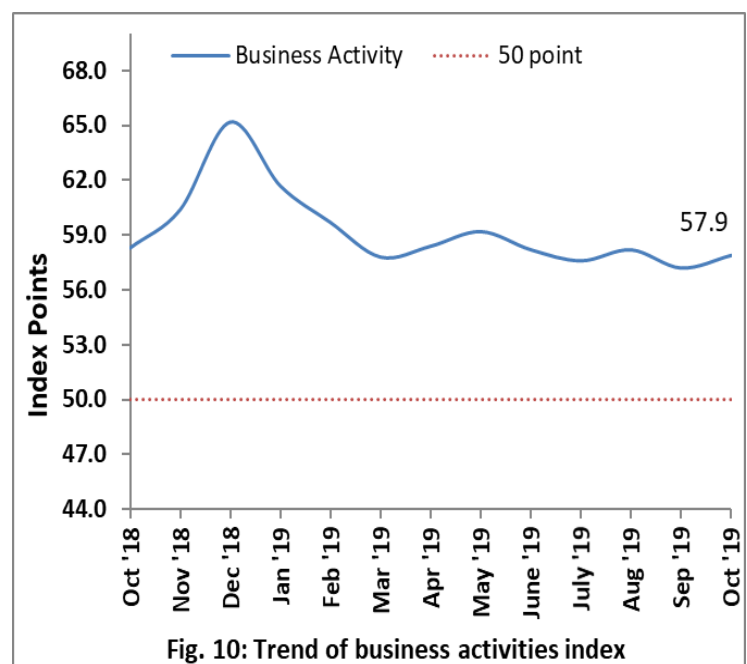


Fig. 10: Trend of business activities index

### 3.2 New Orders

At 58.5 points, new orders index grew for the thirty-first consecutive month in October 2019. Thirteen of the 17 surveyed subsectors recorded growth in new orders, 1 remained unchanged, while 3 recorded decline during the review period (Fig 11 Table 9).

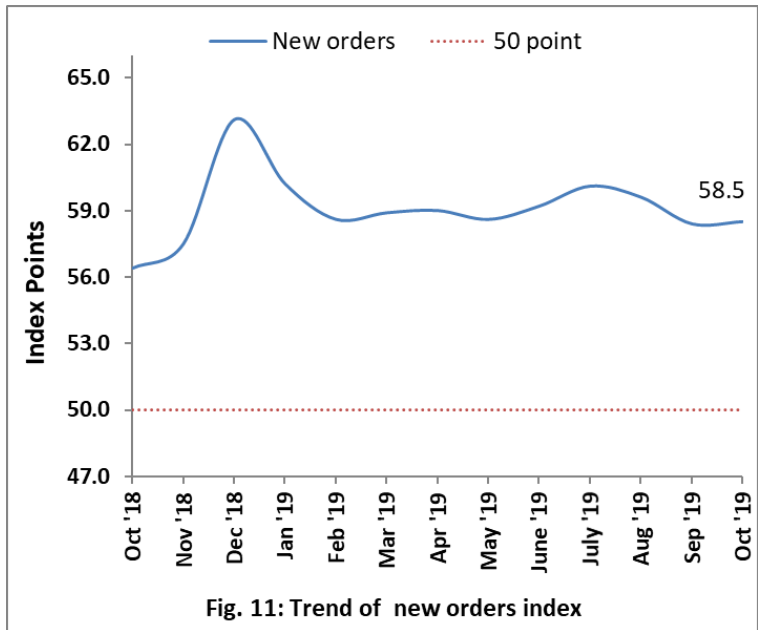


Fig. 11: Trend of new orders index

### 3.3 Employment Level

The employment level Index for the non-manufacturing sector stood at 57.1 points, indicating growth in employment for the thirtieth consecutive month. Fourteen subsectors recorded growth in employment level, 1 remained unchanged, while 2 subsectors declined in the review period (Fig 12 Table 10).

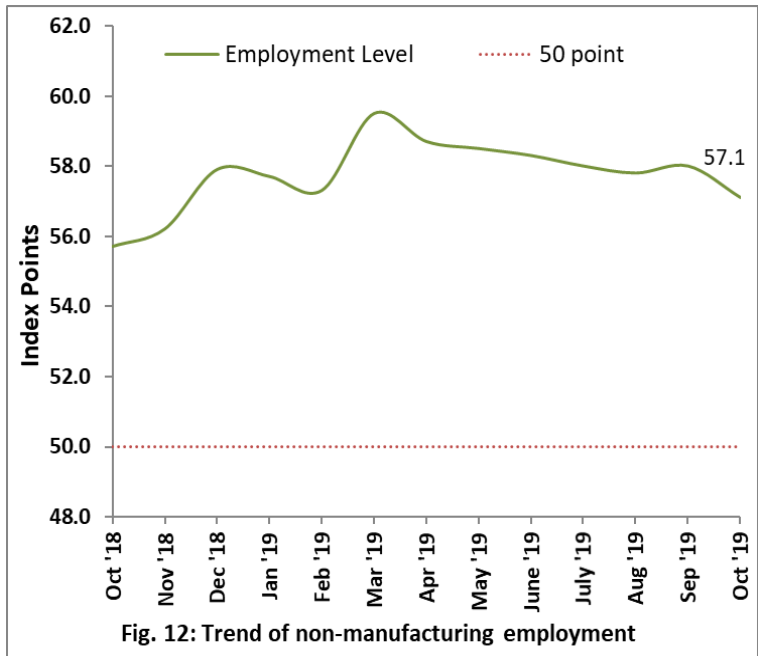


Fig. 12: Trend of non-manufacturing employment

### 3.4 Non-manufacturing Inventory

At 59.2 points, non-manufacturing inventory index grew for the thirtieth consecutive month, indicating growth in inventories in the review period. Of the 17 surveyed subsectors, 15 recorded higher inventories, 1 remained unchanged, while 1 recorded declining inventories in October 2019 (Fig 13, Table 11).

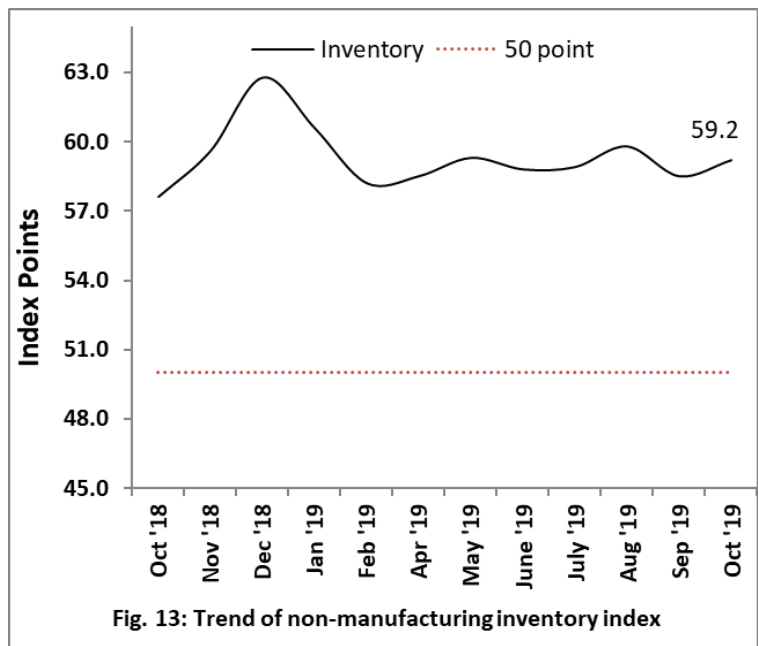


Fig. 13: Trend of non-manufacturing inventory index

## APPENDICES

**Table 1: Details of Overall Manufacturing PMI**

Index	Sept 2019 Index*	Oct 2019 Index*	Difference	Direction	Rate of Change	Trend** (Months)
Composite PMI \1	57.7	58.2	0.5	Growing	Faster	31
Production level	58.5	59.3	0.8	Growing	Faster	32
New orders	57.2	57.9	0.7	Growing	Faster	31
Supplier delivery time	58.4	58.6	0.2	Growing	Faster	29
Employment level	56.6	56.8	0.2	Growing	Faster	30
Raw materials/WIP Inventory	58.1	58.6	0.5	Growing	Faster	31
New Export Orders	39.0	40.0	1.0	Declining	Slower	56
Output Prices	51.9	52.5	0.6	Growing	Faster	46
Input Prices	58.8	58.4	-0.4	Growing	Slower	64
Quantity of Purchases	50.7	53.7	3.0	Growing	Faster	13
Outstanding Business/Backlog of Work	43.9	42.5	-1.4	Declining	Faster	23
Stock of Finished Goods	53.5	53.1	-0.4	Growing	Slower	19
<b>Manufacturing Sub-Sectors</b>						
Cement	74.4	68.0	70.0	Growing	Faster	13
Chemical & pharmaceutical products	58.4	51.8	57.5	Growing	Faster	21
Electrical equipment	54.0	66.5	49.5	Growing	Faster	21
Fabricated metal products	57.7	62.7	52.2	Growing	Faster	16
Food, beverage & tobacco products	61.7	57.3	59.3	Growing	Faster	37
Furniture & related products	58.2	66.3	61.6	Growing	Faster	17
Nonmetallic mineral products	56.3	53.6	59.0	Growing	Faster	4
Paper products	42.7	49.2	59.2	Declining	Slower	3
Petroleum & coal products	62.5	72.5	61.3	Growing	Faster	7
Plastics & rubber products	50.9	53.0	57.6	Growing	Faster	15
Primary metal	50.8	51.9	48.2	Growing	Faster	4
Printing & related support activities	58.5	61.8	61.7	Growing	Faster	19
Textile, apparel, leather & footwear	52.5	60.6	53.9	Growing	Faster	3
Transportation equipment	60.8	51.3	49.4	Growing	Faster	14

\1 The composite PMI is a weighted average of the following diffusion indices: production level, new orders, supplier deliveries, employment level and inventories. The weights assigned to these variables are 25%, 30%, 15%, 10% and 20% respectively.

\*The series index is a diffusion index defined as a weighted percentage of high, same and low with 1.0, 0.5 and 0.0 as weights respectively.

\*\* Number of month moving in current direction

**Table 2: Details of Production PMI**

Index	Sept 2019 Index	Oct 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
PRODUCTION PMI	58.5	59.3	0.8	Growing	Faster	32
Cement	100.0	70.0	-30.0	Growing	Slower	8
Chemical & pharmaceutical products	57.7	45.7	-12.0	Declining	From Expansion	1
Electrical equipment	40.0	80.0	40.0	Growing	From Contraction	1
Fabricated metal products	54.1	72.2	18.1	Growing	Faster	8
Food, beverage & tobacco products	60.6	55.4	-5.2	Growing	Slower	37
Furniture & related products	55.8	70.3	14.5	Growing	Faster	17
Nonmetallic mineral products	58.3	52.6	-5.7	Growing	Slower	4
Paper products	61.1	44.4	-16.7	Declining	From Expansion	1
Petroleum & coal products	100.0	100.0	0.0	Growing	Flat	7
Plastics & rubber products	54.2	52.0	-2.2	Growing	Slower	2
Primary metal	45.5	45.8	0.3	Declining	Slower	4
Printing & related support activities	72.0	68.5	-3.5	Growing	Slower	5
Textile, apparel, leather & footwear	50.0	66.7	16.7	Growing	From No Change	1
Transportation equipment	62.5	75.0	12.5	Growing	Faster	2



**Table 3: Details of New Orders PMI**

Index	Sept 2019 Index	Oct 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	57.2	57.9	0.7	Growing	Faster	31
Cement	62.5	70.0	7.5	Growing	Faster	4
Chemical & pharmaceutical products	57.7	48.6	-9.1	Declining	From Expansion	1
Electrical equipment	40.0	60.0	20.0	Growing	From Contraction	1
Fabricated metal products	51.4	63.9	12.5	Growing	Faster	5
Food, beverage & tobacco products	58.3	59.8	1.5	Growing	Faster	37
Furniture & related products	65.4	65.6	0.2	Growing	Faster	5
Nonmetallic mineral products	63.9	55.3	-8.6	Growing	Slower	4
Paper products	61.1	38.9	-22.2	Declining	From Expansion	1
Petroleum & coal products	25.0	50.0	25.0	No Change	From Contraction	1
Plastics & rubber products	54.2	52.0	-2.2	Growing	Slower	4
Primary metal	45.5	45.8	0.3	Declining	Slower	2
Printing & related support activities	68.0	59.6	-8.4	Growing	Slower	5
Textile, apparel, leather & footwear	48.2	59.5	11.3	Growing	From Contraction	1
Transportation equipment	50.0	50.0	0.0	No Change	Flat	2

**Table 4: Details of Supplier Delivery Time PMI**

Index	Sept 2019 Index	Oct 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
SUPPLIER DELIVERY TIME PMI	58.4	58.6	0.2	Growing	Faster	29
Cement	50.0	70.0	20.0	Growing	From No Change	1
Chemical & pharmaceutical products	53.8	58.3	4.5	Growing	Faster	4
Electrical equipment	50.0	50.0	0.0	No Change	Flat	3
Fabricated metal products	54.1	56.9	2.8	Growing	Faster	3
Food, beverage & tobacco products	59.6	56.3	-3.3	Growing	Slower	16
Furniture & related products	76.9	67.2	-9.7	Growing	Slower	11
Nonmetallic mineral products	61.1	65.8	4.7	Growing	Faster	18
Paper products	55.6	50.0	-5.6	No Change	From Expansion	1
Petroleum & coal products	75.0	50.0	-25.0	No Change	From Expansion	1
Plastics & rubber products	56.3	56.0	-0.3	Growing	Slower	2
Primary metal	54.5	50.0	-4.5	No Change	From Expansion	1
Printing & related support activities	54.0	61.5	7.5	Growing	Faster	4
Textile, apparel, leather & footwear	60.7	64.3	3.6	Growing	Faster	2
Transportation equipment	25.0	50.0	25.0	No Change	From Contraction	1



**Table 5: Details of Employment Level PMI**

Index	Sept 2019 Index	Oct 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	56.6	56.8	0.2	Growing	Faster	30
Cement	62.5	60.0	-2.5	Growing	Slower	5
Chemical & pharmaceutical products	59.0	61.1	2.1	Growing	Faster	3
Electrical equipment	70.0	60.0	-10.0	Growing	Slower	11
Fabricated metal products	50.0	56.9	6.9	Growing	From No Change	1
Food, beverage & tobacco products	61.0	56.3	-4.7	Growing	Slower	18
Furniture & related products	55.8	64.1	8.3	Growing	Faster	4
Nonmetallic mineral products	50.0	44.7	-5.3	Declining	From No Change	1
Paper products	44.4	66.7	22.3	Growing	From Contraction	1
Petroleum & coal products	50.0	75.0	25.0	Growing	From No Change	1
Plastics & rubber products	62.5	56.0	-6.5	Growing	Slower	2
Primary metal	45.5	62.5	17.0	Growing	From Contraction	1
Printing & related support activities	48.0	53.7	5.7	Growing	From Contraction	1
Textile, apparel, leather & footwear	58.9	50.0	-8.9	No Change	From Expansion	1
Transportation equipment	50.0	25.0	-25.0	Declining	From No Change	1

**Table 6: Details of Raw Materials Inventory PMI**

Index	Sept 2019 Index	Oct 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
RAW MATERIALS INVENTORY PMI	58.1	58.6	0.5	Growing	Faster	31
Cement	62.5	70.0	7.5	Growing	Faster	4
Chemical & pharmaceutical products	59.0	48.6	-10.4	Declining	From Expansion	1
Electrical equipment	60.0	90.0	30.0	Growing	Faster	2
Fabricated metal products	51.4	55.6	4.2	Growing	Faster	2
Food, beverage & tobacco products	55.5	58.5	3.0	Growing	Faster	37
Furniture & related products	53.8	60.9	7.1	Growing	Faster	3
Nonmetallic mineral products	61.1	50.0	-11.1	No Change	From Expansion	1
Paper products	83.3	55.6	-27.7	Growing	Slower	5
Petroleum & coal products	75.0	100.0	25.0	Growing	Faster	5
Plastics & rubber products	68.8	48.0	-20.8	Declining	From Expansion	1
Primary metal	59.1	66.7	7.6	Growing	Faster	2
Printing & related support activities	56.0	68.5	12.5	Growing	Faster	6
Textile, apparel, leather & footwear	60.7	64.3	3.6	Growing	Faster	3
Transportation equipment	50.0	50.0	0.0	No Change	Flat	2

**Table 7: Non-Manufacturing at a Glance**

Index	Sept 2019 Index	Oct 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
Composite PMI \1	58.0	58.2	0.2	Growing	Faster	30
Business Activity	57.2	57.9	0.7	Growing	Faster	31
Level of new orders/customers/incoming business	58.4	58.5	0.1	Growing	Faster	31
Employment Level	58.0	57.1	-0.9	Growing	Slower	30
Inventories	58.5	59.2	0.7	Growing	Faster	30
Average price of Inputs (volume weighted)	51.9	52.2	0.3	Growing	Faster	48
Level of outstanding business/ Backlog of work	45.5	42.9	-2.6	Declining	Faster	64
New Exports orders	42.4	40.4	-2.0	Declining	Faster	64
Imports	45.7	41.7	-4.0	Declining	Faster	64
Inventory (sentiments)	48.7	45.1	-3.6	Declining	Faster	64
<b>Non-manufacturing sub-sectors</b>						
Accommodation & food services	56.8	59.0	2.2	Growing	Faster	16
Agriculture	63.7	61.2	-2.5	Growing	Slower	41
Arts, Entertainment & Recreation	64.4	47.9	-16.5	Declining	From Expansion	1
Construction	59.9	57.7	-2.2	Growing	Slower	13
Educational services	55.3	57.9	2.6	Growing	Faster	16
Electricity, gas, steam & air conditioning supply	51.0	50.9	-0.1	Growing	Slower	12
Finance & insurance	58.6	59.7	1.1	Growing	Faster	32
Health care & social assistance	55.3	51.7	-3.6	Growing	Slower	30
Information & communication	65.7	57.6	-8.1	Growing	Slower	31
Management of companies	50.0	45.8	-4.2	Declining	From No Change	1
Professional, scientific, & technical services	42.6	55.2	12.6	Growing	From Contraction	1
Real estate rental & leasing	51.8	63.5	11.7	Growing	Faster	20
Repair, Maintenance/Washing Of Motor Vehicles...	63.5	68.1	4.6	Growing	Faster	17
Transportation & warehousing	63.8	64.0	0.2	Growing	Faster	5
Utilities	70.8	61.0	-9.8	Growing	Slower	2
Water supply, sewage & waste management	41.3	53.4	12.1	Growing	From Contraction	1
Wholesale/Retail trade	64.8	58.9	-5.9	Growing	Slower	29

\1 The composite PMI is a simple average of the following diffusion (series) indices: business activity, new orders, employment level and inventories

**Table 8: Business activity at a Glance**

Index	Sept 2019 Index	Oct 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
BUSINESS ACTIVITY PMI	57.2	57.9	0.7	Growing	Faster	31
Accommodation & food services	55.8	59.7	3.9	Growing	Faster	16
Agriculture	59.7	61.8	2.1	Growing	Faster	4
Arts, Entertainment & Recreation	70.0	58.3	-11.7	Growing	Slower	6
Construction	60.3	54.3	-6.0	Growing	Slower	12
Educational services	56.3	58.7	2.4	Growing	Faster	26
Electricity, gas, steam & air conditioning supply	54.2	50.0	-4.2	No Change	From Expansion	1
Finance & insurance	59.6	61.0	1.4	Growing	Faster	31
Health care & social assistance	53.5	50.7	-2.8	Growing	Slower	13
Information & communication	65.0	56.1	-8.9	Growing	Slower	6
Management of companies	50.0	50.0	0.0	No Change	Flat	2
Professional, scientific, & technical services	38.6	47.7	9.1	Declining	Slower	2
Real estate rental & leasing	46.3	63.2	16.9	Growing	From Contraction	1
Repair, Maintenance/Washing Of Motor Vehicles.	75.0	66.7	-8.3	Growing	Slower	13
Transportation & warehousing	63.2	65.8	2.6	Growing	Faster	5
Utilities	66.7	64.3	-2.4	Growing	Slower	2
Water supply, sewage & waste management	30.0	50.0	20.0	No Change	From Contraction	1
Wholesale/Retail trade	65.5	58.0	-7.5	Growing	Slower	16

**Table 9: New Orders at a Glance**

Index	Sept 2019 Index	Sept 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	58.4	58.5	0.1	Growing	Faster	31
Accommodation & food services	58.4	60.7	2.3	Growing	Faster	16
Agriculture	61.1	57.4	-3.7	Growing	Slower	8
Arts, Entertainment & Recreation	80.0	66.7	-13.3	Growing	Slower	6
Construction	63.2	55.7	-7.5	Growing	Slower	12
Educational services	62.5	60.9	-1.6	Growing	Slower	16
Electricity, gas, steam & air conditioning supply	45.8	46.7	0.9	Declining	Slower	2
Finance & insurance	54.0	58.0	4.0	Growing	Faster	32
Health care & social assistance	50.0	47.0	-3.0	Declining	From No Change	1
Information & communication	70.0	60.6	-9.4	Growing	Slower	31
Management of companies	50.0	33.3	-16.7	Declining	From No Change	1
Professional, scientific, & technical services	43.2	59.1	15.9	Growing	From Contraction	1
Real estate rental & leasing	56.1	62.8	6.7	Growing	Faster	12
Repair, Maintenance/Washing Of Motor Vehicles..	66.7	70.8	4.1	Growing	Faster	13
Transportation & warehousing	71.1	68.4	-2.7	Growing	Slower	7
Utilities	50.0	50.0	0.0	No Change	Flat	2
Water supply, sewage & waste management	40.0	63.6	23.6	Growing	From Contraction	1
Wholesale/Retail trade	66.1	61.2	-4.9	Growing	Slower	29

**Table 10: Employment at a Glance**

Index	Sept 2019 Index	Oct 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	58.0	57.1	-0.9	Growing	Slower	30
Accommodation & food services	55.8	57.0	1.2	Growing	Faster	14
Agriculture	72.9	61.8	-11.1	Growing	Slower	30
Arts, Entertainment & Recreation	37.5	25.0	-12.5	Declining	Faster	3
Construction	57.4	55.7	-1.7	Growing	Slower	13
Educational services	55.1	55.4	0.3	Growing	Faster	16
Electricity, gas, steam & air conditioning supply	54.2	53.3	-0.9	Growing	Slower	8
Finance & insurance	58.5	62.5	4.0	Growing	Faster	29
Health care & social assistance	61.3	53.0	-8.3	Growing	Slower	29
Information & communication	63.3	54.5	-8.8	Growing	Slower	13
Management of companies	25.0	50.0	25.0	No Change	From Contraction	1
Professional, scientific, & technical services	45.5	56.8	11.3	Growing	From Contraction	1
Real estate rental & leasing	47.6	61.5	13.9	Growing	From Contraction	1
Repair, Maintenance/Washing Of Motor Vehicles..	58.3	66.7	8.4	Growing	Faster	6
Transportation & warehousing	47.4	60.5	13.1	Growing	From Contraction	1
Utilities	83.3	71.4	-11.9	Growing	Slower	2
Water supply, sewage & waste management	45.0	45.5	0.5	Declining	Slower	2
Wholesale/Retail trade	65.9	54.8	-11.1	Growing	Slower	17

**Table 11: Inventory at a Glance**

Index	Sept 2019 Index	Oct 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
INVENTORY PMI	58.5	59.2	0.7	Growing	Faster	30
Accommodation & food services	57.2	58.6	1.4	Growing	Faster	16
Agriculture	61.1	64.1	3.0	Growing	Faster	13
Arts, Entertainment & Recreation	70.0	41.7	-28.3	Declining	From Expansion	1
Construction	58.8	65.2	6.4	Growing	Faster	16
Educational services	47.5	56.7	9.2	Growing	From Contraction	1
Electricity, gas, steam & air conditioning supply	50.0	53.6	3.6	Growing	From No Change	1
Finance & insurance	62.4	57.1	-5.3	Growing	Slower	21
Health care & social assistance	56.3	56.0	-0.3	Growing	Slower	30
Information & communication	64.5	59.4	-5.1	Growing	Slower	18
Management of companies	75.0	50.0	-25.0	No Change	From Expansion	1
Professional, scientific, & technical services	43.2	57.1	13.9	Growing	From Contraction	1
Real estate rental & leasing	57.3	66.7	9.4	Growing	Faster	20
Repair, Maintenance/Washing Of Motor Vehicles	54.2	68.2	14.0	Growing	Faster	3
Transportation & warehousing	73.7	61.1	-12.6	Growing	Slower	5
Utilities	83.3	58.3	-25.0	Growing	Slower	2
Water supply, sewage & waste management	50.0	54.5	4.5	Growing	From No Change	1
Wholesale/Retail trade	61.6	61.7	0.1	Growing	Faster	27

**Table 12: Manufacturing PMI Data Series**

Month	COMPOSITE PMI	Production Level	New Orders	Supplier Delivery Time	Employment Level	Raw Materials Inventory	New Export Orders	Output Prices	Input Prices	Quantity of Purchases	Backlog of Work	Stock of Finished Goods
Jul '14	51.3	55.2	53.0	46.4	46.9	52.9	43.6	50.6	54.2	53.3	46.4	47.2
Aug '14	49.7	49.7	51.2	49.9	45.9	52.2	40.8	48.6	52.7	50.8	45.4	48.6
Sep '14	54.0	57.4	57.6	46.4	49.3	55.7	45.4	49.3	52.9	55.1	46.9	49.8
Oct '14	51.9	55.1	55.3	46.2	46.8	52.4	45.9	49.7	56.7	57.1	50.5	51.7
Nov '14	52.2	55.1	56.9	45.1	47.2	51.7	46.0	53.3	60.9	56.0	50.0	47.6
Dec '14	49.8	51.2	51.1	49.7	46.8	48.4	44.6	53.6	56.3	51.4	47.5	51.1
Jan '15	50.2	50.4	49.3	51.3	51.1	49.3	47.7	48.7	55.6	52.5	48.8	45.5
Feb '15	53.0	57.4	54.7	43.8	50.0	56.4	50.1	54.0	60.9	58.0	50.7	53.7
Mar '15	48.9	52.1	48.9	47.8	46.4	47.1	38.1	50.1	56.4	48.7	44.5	46.5
Apr '15	52.0	56.9	54.1	42.7	48.9	53.9	43.0	50.2	54.4	53.0	48.3	48.7
May '15	49.4	53.6	49.7	44.6	48.0	48.0	36.9	51.6	59.0	50.5	44.9	45.6
Jun '15	49.5	51.5	50.8	42.0	48.5	53.3	40.0	49.2	56.7	53.0	45.3	49.3
Jul '15	47.8	49.7	46.2	43.5	48.4	52.6	40.1	47.9	55.0	51.7	45.2	45.3
Aug '15	48.4	51.0	50.1	43.1	44.8	52.4	37.6	49.0	53.1	50.2	43.7	46.1
Sep '15	50.7	54.9	52.1	46.8	47.1	49.0	40.3	47.5	52.8	51.0	42.5	43.2
Oct '15	49.2	52.0	49.3	42.7	48.4	53.1	39.8	49.1	53.8	48.3	45.6	46.8
Nov '15	51.2	55.4	52.9	47.3	45.5	52.2	38.7	46.2	52.8	51.0	46.0	46.9
Dec '15	51.2	55.4	52.7	45.2	47.5	52.7	38.0	48.6	56.5	54.5	45.1	46.4
Jan '16	47.2	49.3	46.2	48.4	46.0	45.8	38.3	52.6	56.7	49.9	44.2	46.3
Feb '16	45.5	45.0	43.0	52.8	45.0	44.7	39.2	53.0	57.0	42.8	38.5	44.4
Mar '16	45.9	46.6	43.0	50.6	45.5	47.1	37.8	56.4	60.9	41.6	41.2	43.8
Apr '16	43.7	42.7	41.8	52.2	42.0	43.0	36.3	63.9	67.8	43.6	42.6	41.6
May '16	45.8	47.9	42.7	50.2	45.7	43.9	38.7	59.6	68.4	42.7	37.0	40.1
Jun '16	41.9	40.2	37.0	55.6	42.2	39.4	35.3	61.4	70.0	39.0	40.2	36.0
Jul '16	44.1	43.0	42.4	51.7	43.8	41.4	38.5	60.8	64.2	41.6	41.9	39.0
Aug '16	42.1	40.5	37.5	57.4	40.4	40.0	31.2	64.1	69.8	39.9	38.3	38.3
Sep '16	42.5	40.9	38.7	55.6	41.2	40.9	26.3	66.5	74.0	42.8	37.1	42.4
Oct '16	44.1	42.3	40.3	57.7	42.2	42.9	37.3	65.2	71.8	43.5	39.2	39.9
Nov '16	46.0	46.9	45.1	53.2	40.6	46.1	39.6	65.7	71.2	48.1	45.2	42.0
Dec '16	52.0	57.6	51.8	47.9	48.6	51.6	37.2	70.4	73.2	52.7	45.3	48.5
Jan '17	48.2	51.3	47.9	48.5	45.3	46.3	33.1	67.9	71.4	48.4	43.6	46.9
Feb '17	44.6	45.2	44.0	48.7	41.7	44.8	38.4	69.9	70.9	47.7	43.2	43.9
Mar '17	47.7	50.8	45.6	51.3	43.6	49.1	38.5	65.0	68.3	50.1	43.6	45.1
Apr '17	51.1	58.5	50.1	47.5	46.6	50.6	37.7	65.1	69.2	45.1	40.0	46.4
May '17	52.5	58.7	50.5	49.9	50.7	50.8	37.6	61.3	68.4	46.1	42.3	51.8
June '17	52.9	58.2	51.0	50.3	51.1	52.3	32.6	62.7	66.6	46.2	43.9	49.1
July '17	54.1	59.3	52.7	51.3	51.8	53.6	37.5	60.4	64.1	48.0	42.1	48.5
Aug '17	53.6	57.4	52.3	52.0	51.5	54.9	36.7	58.8	64.9	49.0	47.9	51.6
Sep '17	55.3	58.8	53.5	55.4	52.8	56.4	30.4	58.2	65.7	49.4	51.9	50.4
Oct '17	55.0	58.4	52.8	55.5	53.1	56.5	35.5	55.4	62.7	49.6	50.8	50.0
Nov '17	55.9	59.3	54.3	56.0	53.7	57.1	37.6	54.0	64.3	48.1	50.0	48.8
Dec '17	59.3	63.2	60.0	57.4	53.9	61.1	40.2	54.3	63.4	53.6	45.7	47.4
Jan '18	57.3	59.6	58.3	56.8	53.3	57.7	35.1	55.0	63.3	49.1	42.9	45.4
Feb '18	56.3	57.8	55.6	57.0	53.9	58.1	42.0	55.9	65.4	54.3	37.6	53.3
Mar '18	56.7	59.1	56.1	56.6	53.3	59.4	36.4	52.1	61.1	54.1	42.1	48.7
Apr '18	56.9	58.6	55.8	57.4	55.0	59.5	37.6	51.3	62.4	52.9	41.4	51.1
May '18	56.5	58.8	54.9	57.5	55.2	58.1	40.1	53.9	61.8	50.8	38.5	55.8
June '18	57.0	59.2	56.2	56.5	55.4	57.7	37.6	53.8	61.9	47.6	38.0	51.1
July '18	56.8	59.0	55.8	56.8	55.0	57.4	39.4	52.3	60.7	51.1	40.7	51.3
Aug '18	57.1	59.3	56.9	55.9	55.5	57.1	39.7	50.1	59.3	50.1	43.1	50.7
Sep '18	56.2	58.4	55.3	56.1	54.9	55.9	37.1	52.4	57.5	49.4	42.2	50.5
Oct '18	56.8	58.9	56.8	56.4	54.8	56.2	39.9	51.2	56.7	50.9	39.6	51.5
Nov '18	57.9	59.9	58.1	56.9	55.4	58.7	41.2	51.9	57.8	52.2	40.0	53.8
Dec '18	61.1	63.6	62.3	58.4	57.0	63.2	42.1	51.6	61.3	56.1	41.7	50.6
Jan '19	58.5	59.3	58.9	58.3	56.4	59.9	41.4	52.5	62.2	52.5	42.1	52.3
Feb '19	57.1	57.5	56.9	58.2	56.3	56.2	39.7	53.7	60.9	52.1	44.1	55.4
Mar '19	57.4	58.3	56.7	58.4	56.9	57.1	47.9	62.3	57.6	51.8	47.6	60.7
Apr '19	57.7	58.8	57.2	58.1	57.0	57.5	37.4	52.4	60.2	57.3	44.5	54.4
May '19	57.8	59.1	56.9	58.4	57.3	56.8	37.7	52.3	62.2	51.5	40.8	51.5
June '19	57.4	59.3	55.9	58.7	57.5	55.0	38.0	52.4	62.7	52.1	43.8	51.1
July '19	57.6	58.9	57.2	57.5	57.3	56.2	41.1	52.2	59.5	52.5	41.8	51.5
Aug '19	57.9	58.7	57.1	58.3	57.1	58.7	39.9	50.3	57.0	51.2	42.4	52.1
Sep '19	57.7	58.5	57.2	58.4	56.6	58.1	39.0	51.9	58.8	50.7	43.9	53.5
Oct '19	58.2	59.3	57.9	58.6	56.8	58.6	40.0	52.5	58.4	53.7	42.5	53.1

**Table 13: Non-Manufacturing PMI Data Series**

Month	COMPOSITE PMI	Business Activity	New orders	Employment Level	Inventory	Average Input Price	Backlog of Work	New Exports Orders	Imports	Inventories (sentiment)
Jul '14	55.0	58.9	55.9	50.2	55.2	54.0	46.2	44.0	47.3	47.8
Aug '14	58.9	60.6	59.8	58.3	57.0	56.1	47.0	46.1	46.4	48.1
Sep '14	54.7	57.1	57.5	49.9	54.3	52.8	46.2	40.7	45.2	47.6
Oct '14	57.3	59.6	59.4	53.9	56.4	53.3	46.4	40.8	44.9	43.8
Nov '14	59.6	62.5	63.6	57.9	54.6	57.3	49.6	45.2	47.5	48.1
Dec '14	53.8	56.2	56.0	51.4	51.5	54.5	45.6	43.6	46.5	43.8
Jan '15	50.6	48.8	50.4	51.2	51.9	48.8	43.2	41.1	44.3	47.0
Feb '15	54.0	54.2	54.7	52.5	54.5	54.1	46.0	43.0	44.6	46.1
Mar '15	48.6	49.7	51.1	45.6	48.0	49.8	46.5	39.9	44.2	40.2
Apr '15	53.7	58.2	56.8	49.1	50.8	51.5	46.6	41.1	44.5	43.0
May '15	51.7	52.9	53.1	49.7	51.1	51.3	44.1	37.2	39.1	44.3
Jun '15	50.1	51.5	50.3	46.4	52.0	48.5	44.4	36.9	40.4	42.7
Jul '15	50.0	50.4	51.4	48.6	49.5	50.3	43.8	39.1	39.2	44.0
Aug '15	50.7	52.3	52.4	48.0	50.1	50.7	43.0	39.8	38.3	44.0
Sep '15	50.1	52.1	52.3	47.0	49.1	48.7	44.5	42.9	41.4	45.9
Oct '15	51.9	54.2	54.1	49.3	50.1	49.9	43.9	40.3	42.4	45.2
Nov '15	49.6	52.9	51.6	45.6	48.5	51.8	42.8	37.7	39.0	41.8
Dec '15	53.4	55.9	56.4	50.0	51.5	54.7	47.0	41.9	42.7	47.2
Jan '16	46.9	46.2	46.4	47.0	47.9	57.3	44.3	36.2	39.0	41.6
Feb '16	44.3	43.7	42.0	44.5	47.1	53.6	39.6	37.5	36.6	43.6
Mar '16	45.4	46.3	44.7	43.9	46.5	58.5	43.8	34.3	35.0	41.1
Apr '16	44.3	44.2	42.2	43.3	47.6	62.2	43.1	31.8	33.1	39.8
May '16	44.3	44.3	41.3	44.6	46.9	62.9	38.1	33.2	35.0	40.3
Jun '16	42.3	40.2	39.6	42.5	47.1	60.7	39.6	33.2	34.7	38.5
Jul '16	43.2	42.8	42.3	41.9	45.8	60.4	38.6	30.0	32.7	38.0
Aug '16	43.7	43.6	42.0	41.4	47.7	60.8	39.4	32.9	34.2	39.4
Sep '16	41.0	39.9	40.0	40.3	43.9	63.1	39.6	28.6	30.2	37.9
Oct '16	43.4	43.0	42.7	41.5	46.4	65.3	40.9	32.8	33.8	38.7
Nov '16	42.8	43.0	42.3	40.2	45.5	66.8	42.4	30.8	34.0	41.1
Dec '16	47.1	48.2	46.9	43.8	49.5	64.0	41.5	33.8	35.5	41.6
Jan '17	49.4	50.6	49.4	45.6	52.0	65.6	43.6	32.5	36.1	45.5
Feb '17	44.5	45.4	44.9	42.6	44.9	65.4	42.9	33.4	34.5	38.7
Mar '17	47.1	49.8	46.4	44.0	48.0	62.1	42.7	33.1	34.5	40.6
Apr '17	49.5	53.3	50.5	45.5	48.6	63.1	41.6	29.2	33.2	41.1
May '17	52.7	56.2	53.2	50.2	51.4	62.7	45.3	31.6	34.1	43.6
June '17	54.2	57.0	54.6	53.4	51.8	58.6	40.5	30.3	33.5	42.7
July '17	54.4	56.8	55.1	54.0	51.9	58.1	42.9	32.0	36.8	41.5
Aug '17	54.1	56.1	53.5	54.4	52.3	54.5	42.8	34.5	34.8	42.0
Sep '17	54.9	56.8	55.4	54.7	52.9	56.9	42.2	31.2	35.9	44.2
Oct '17	55.3	57.5	55.7	54.4	53.4	56.4	41.4	29.6	35.4	38.9
Nov '17	57.6	59.4	58.4	54.6	58.0	55.7	43.6	28.8	33.3	40.6
Dec '17	62.1	67.4	62.2	55.7	62.9	56.1	44.6	34.6	39.1	40.3
Jan '18	58.5	61.3	58.2	55.1	59.5	56.9	41.3	31.0	35.1	42.8
Feb '18	56.1	55.6	53.7	55.3	59.8	52.8	41.2	34.7	39.1	40.3
Mar '18	57.2	58.7	55.8	55.1	59.2	50.3	42.9	39.0	38.5	44.1
Apr '18	57.5	58.8	56.4	55.3	59.5	50.3	41.5	34.2	34.9	45.0
May '18	57.3	58.7	55.9	55.6	59.2	50.8	40.6	36.4	38.4	46.2
June '18	57.5	59.1	56.4	55.9	58.5	52.2	44.0	33.2	40.1	42.4
July '18	57.7	59.6	56.1	56.2	59.1	52.1	43.1	42.1	40.5	45.0
Aug '18	58.0	59.3	56.9	56.7	58.9	50.8	43.3	40.1	40.3	44.8
Sep '18	56.5	58.1	55.8	55.4	56.8	50.2	41.5	40.3	41.3	45.7
Oct '18	57.0	58.3	56.4	55.7	57.6	50.7	42.8	39.7	42.2	45.5
Nov '18	58.4	60.4	57.5	56.2	59.6	52.6	42.0	38.7	39.4	45.9
Dec '18	62.3	65.2	63.1	57.9	62.8	52.4	42.7	42.0	41.3	45.8
Jan '19	60.1	61.7	60.2	57.7	60.6	52.2	40.1	38.1	40.4	45.5
Feb '19	58.4	59.7	58.6	57.3	58.2	50.3	38.8	36.2	42.2	44.6
Mar '19	58.5	57.8	58.9	57.8	59.5	50.5	40.3	39.4	38.7	44.2
Apr '19	58.7	58.4	59.0	58.7	58.5	52.1	43.5	38.8	40.8	45.0
May '19	58.9	59.2	58.6	58.5	59.3	51.3	42.3	39.8	43.2	44.5
June '19	58.6	58.2	59.2	58.3	58.8	52.1	40.3	43.0	45.3	46.1
July '19	58.7	57.6	60.1	58.0	58.9	51.7	41.4	42.0	43.9	46.6
Aug '19	58.8	58.2	59.6	57.8	59.8	51.2	45.1	44.1	45.2	48.1
Sep '19	58.0	57.2	58.4	58.0	58.5	51.9	45.5	42.4	45.7	48.7
Oct '19	58.2	57.9	58.5	57.1	59.2	52.2	42.9	40.4	41.7	45.1