

**Central Bank of Nigeria**



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

Statistics Department

*November 2018*

# PURCHASING MANAGERS' INDEX (PMI) NOVEMBER 2018 REPORT

## 1.0 Introduction

The November 2018 PMI survey was conducted by the Statistics Department of the Central Bank of Nigeria during the period November 12-16, 2018. 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) (Fig. 1). 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.

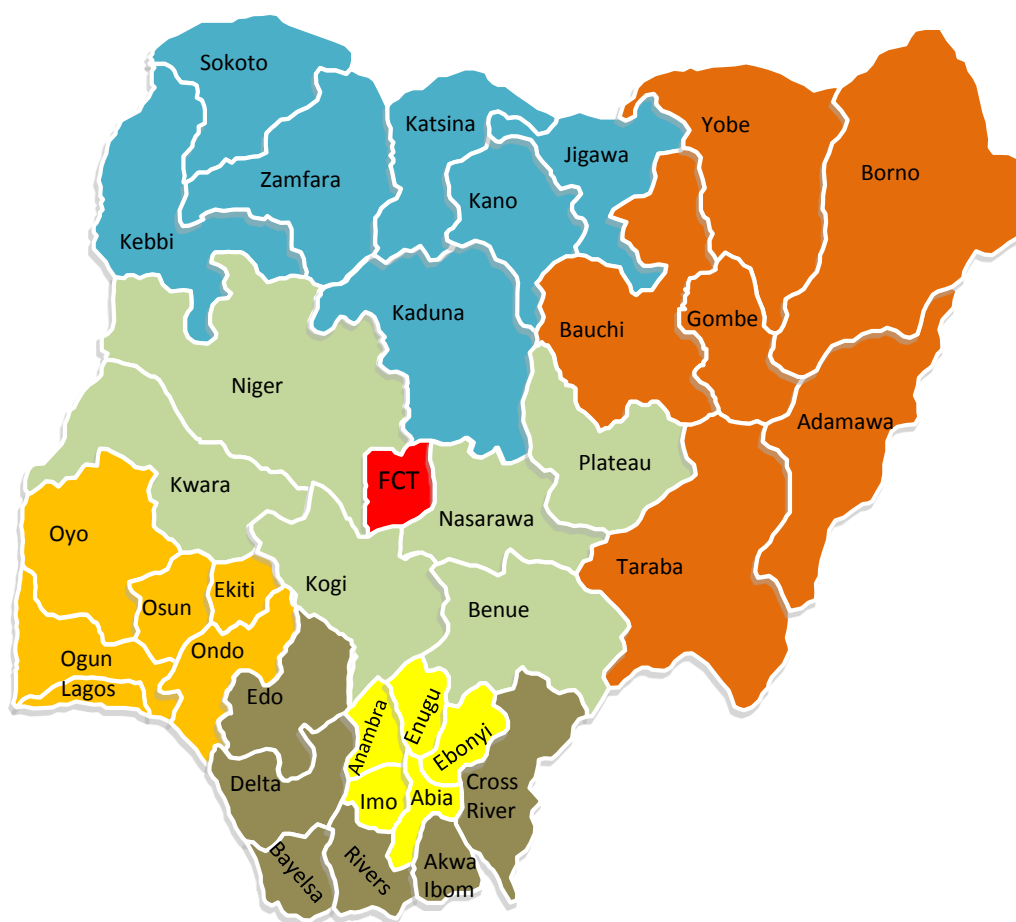


Fig. 1: Map of Nigeria Showing the 36 States and the FCT

### 1.1 Data and Method of Presentation

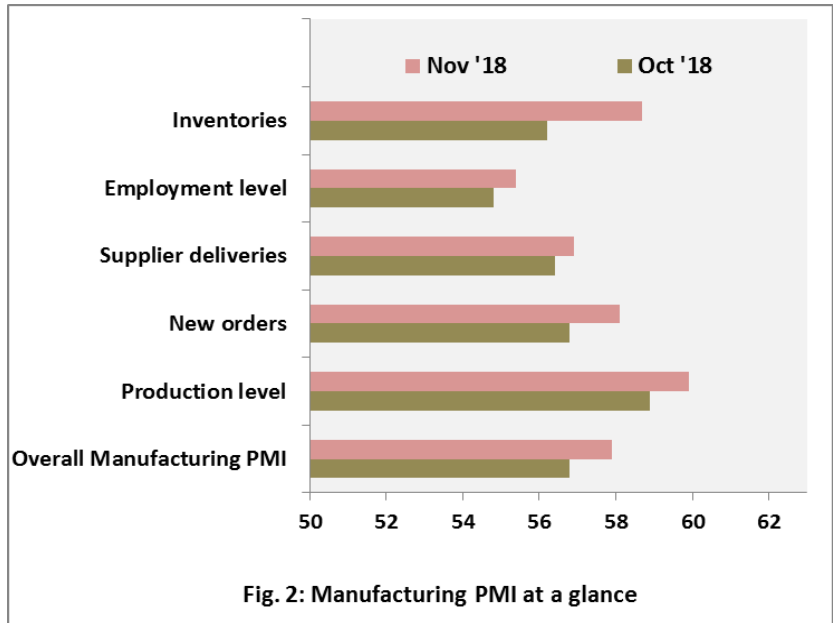
The *Manufacturing and Non-Manufacturing PMI Report* on businesses is based on survey responses, indicating the *changes* in the level of business activities in the *current month* compared with the *preceding month*. For each of the indicators measured, this report shows the diffusion index of the responses. 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.*

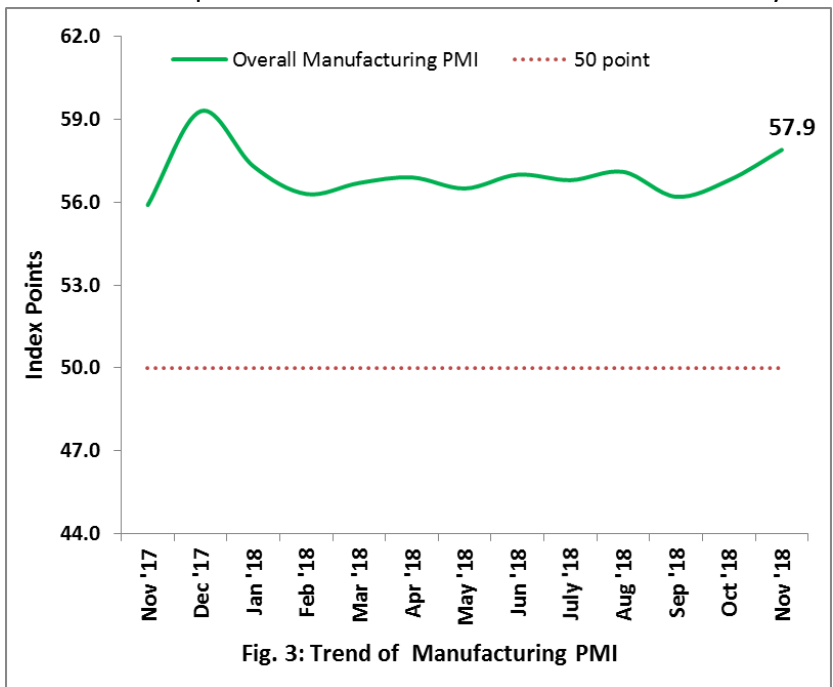
**2.0 Manufacturing PMI Report**

*All subsectors recovered from contraction; production level, new orders, supplier delivery time, employment level and inventories grew at a faster rate in November 2018*



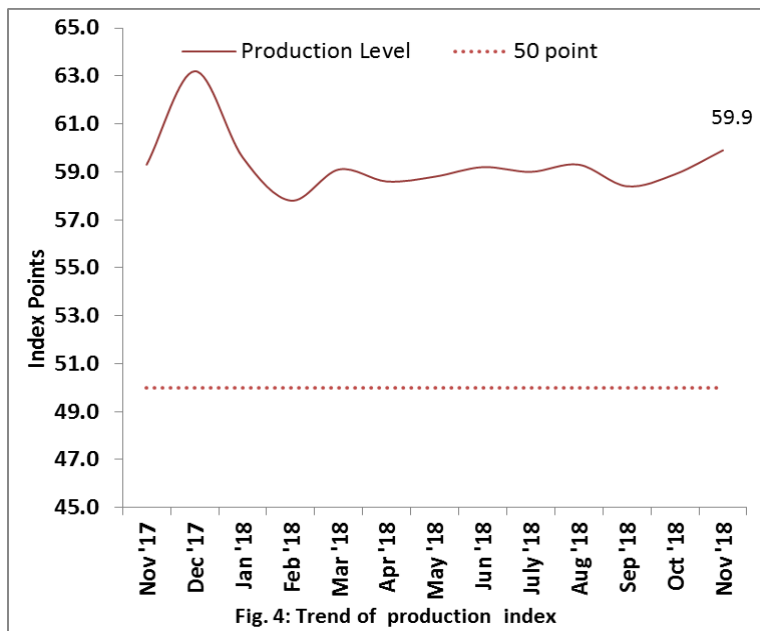
The *Manufacturing PMI* in the month of November stood at 57.9 index points, indicating expansion in the manufacturing sector for the twentieth consecutive month (Fig. 3 and Table 1). The index grew at a faster rate when compared to the index in the previous month. All the 14 subsectors surveyed

reported growth in the review month in the following order: electrical equipment; furniture & related products; cement; food, beverage & tobacco products; paper products; transportation equipment; plastics & rubber products; chemical & pharmaceutical products; printing & related support activities; petroleum & coal products; fabricated metal products; nonmetallic mineral products; textile, apparel, leather & footwear; and primary metal.



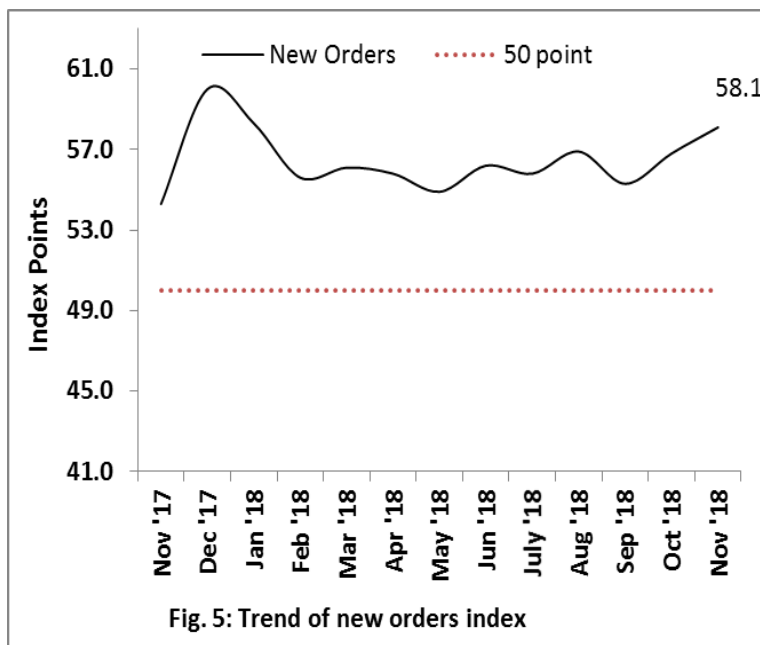
### 2.1 Production Level

At 59.9 points, the production level index for the manufacturing sector grew for the twenty-first consecutive month in November 2018. The index indicated a faster growth in the current month, when compared to its level in the preceding month. Thirteen of the 14 manufacturing subsectors recorded increase in production level, while 1 remained unchanged (Fig. 4 and Table 2).



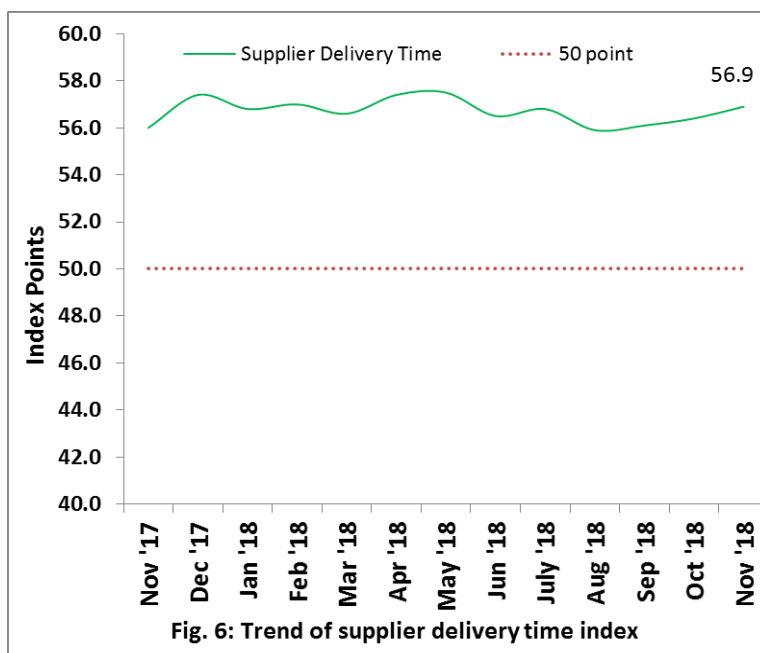
### 2.2 New Orders

At 58.1 points, the new orders index grew for the twentieth consecutive month, indicating increase in new orders in November 2018. Eleven subsectors reported growth, 1 remained unchanged, while 2 contracted in the review month (Fig. 5 and Table 3).



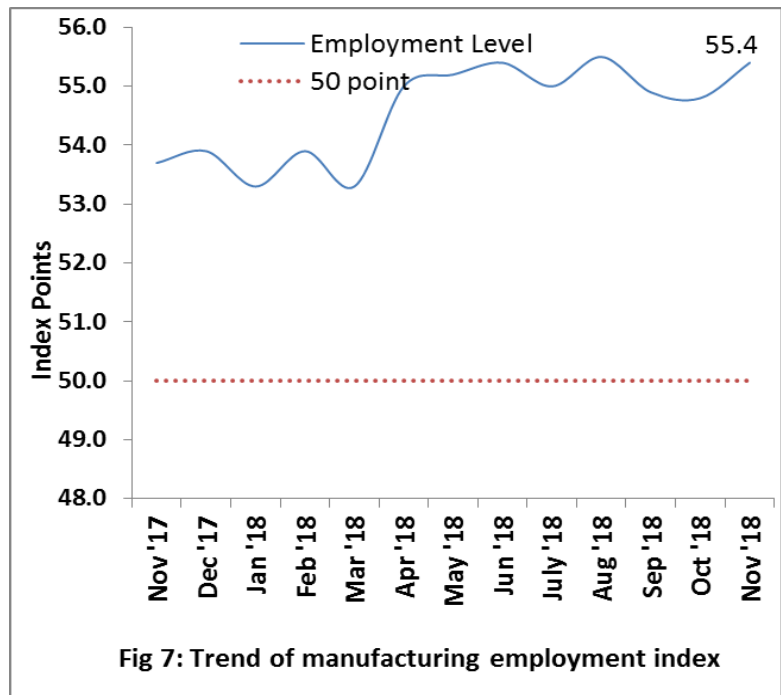
### 2.3 Supplier Delivery Time

The manufacturing supplier delivery time index stood at 56.9 points in November 2018, indicating faster supplier delivery time for the eighteenth consecutive month. Twelve subsectors recorded improved suppliers' delivery time, while 1 remained unchanged delivery times and 1 recorded worsening delivery time (Fig. 6 and Table 4).



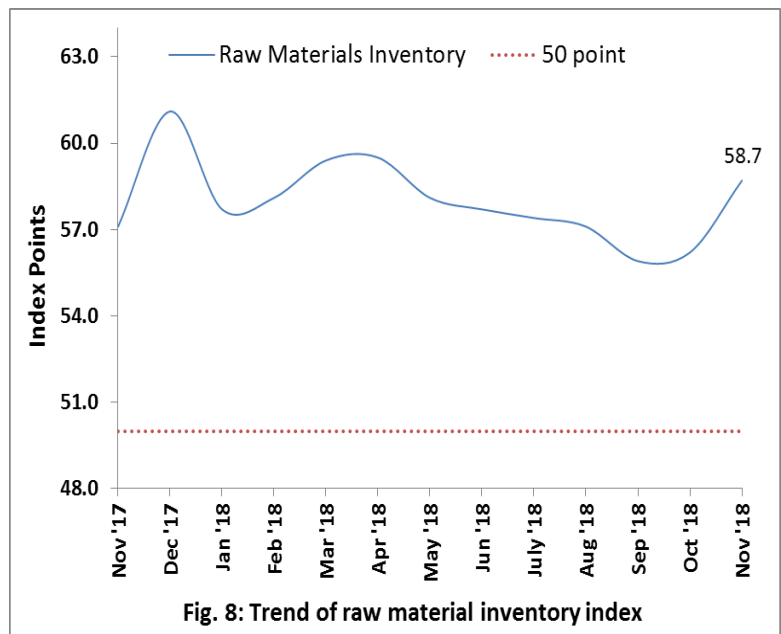
### 2.4 Employment Level

The employment level index in November 2018 stood at 55.4 points, indicating growth in employment level for the nineteenth consecutive month. Of the 14 subsectors, 7 reported increased employment level, 6 remained unchanged while 1 reported reduced employment level in the review month (Fig. 7 and Table 5).



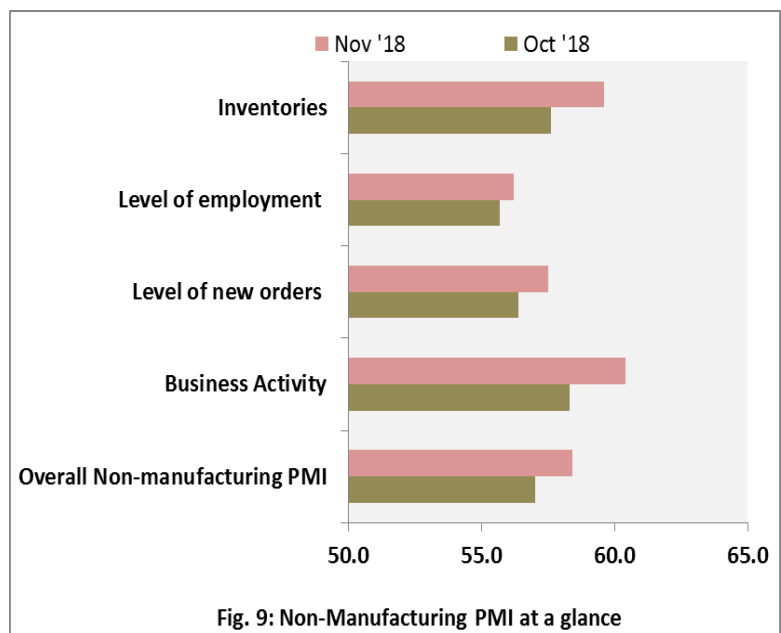
### 2.5 Raw material Inventories

The Manufacturing sector inventories index grew for the twentieth consecutive month in November 2018. At 58.7 points, the index grew at a faster rate when compared to its level in the October 2018. Eleven of the 14 subsectors recorded growth, while 3 recorded decline in raw material inventories (Fig. 8 and Table 6).



### 3.0 Non-Manufacturing PMI Report

*Business activity, new orders, employment level and inventories grew at a faster rate in November 2018*



The *composite PMI* for the *non-manufacturing sector* stood at 58.4 points in November 2018, indicating expansion in the Non-manufacturing PMI for the nineteenth consecutive month. The index grew at a faster rate when compared to that in October 2018. Of the 17 surveyed subsectors, 16 recorded growth in the following order: water supply, sewage & waste management; management of companies; repair, maintenance/washing

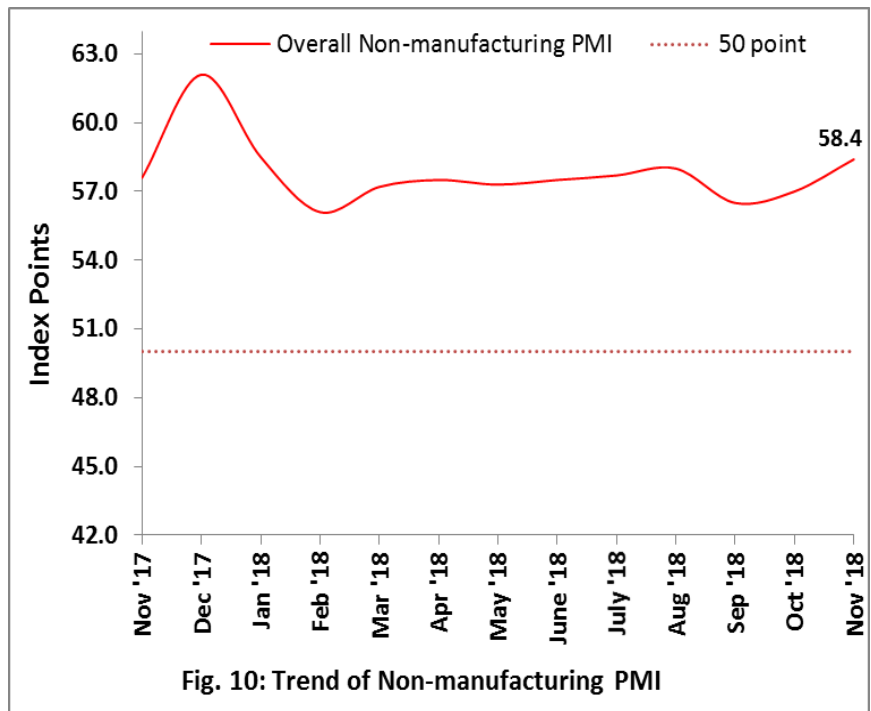


Fig. 10: Trend of Non-manufacturing PMI

of motor vehicles; arts, entertainment & recreation; agriculture; wholesale/retail trade; educational services; information & communication; finance & insurance; real estate rental & leasing; professional, scientific, & technical services; construction; health care & social assistance; accommodation & food services; electricity, gas, steam & air conditioning supply; and transportation & warehousing. The utilities subsector recorded contraction in the review period (Fig. 10 and Table 7).

### 3.1 Business Activity

At 60.4 points, the business activity index grew for the twentieth consecutive month, indicating expansion in non-manufacturing business activity in November 2018. The index grew at a faster rate when compared to its level in the previous month. Fifteen subsectors recorded growth in business activity, while 2 declined in the review month (Fig 11 Table 8).

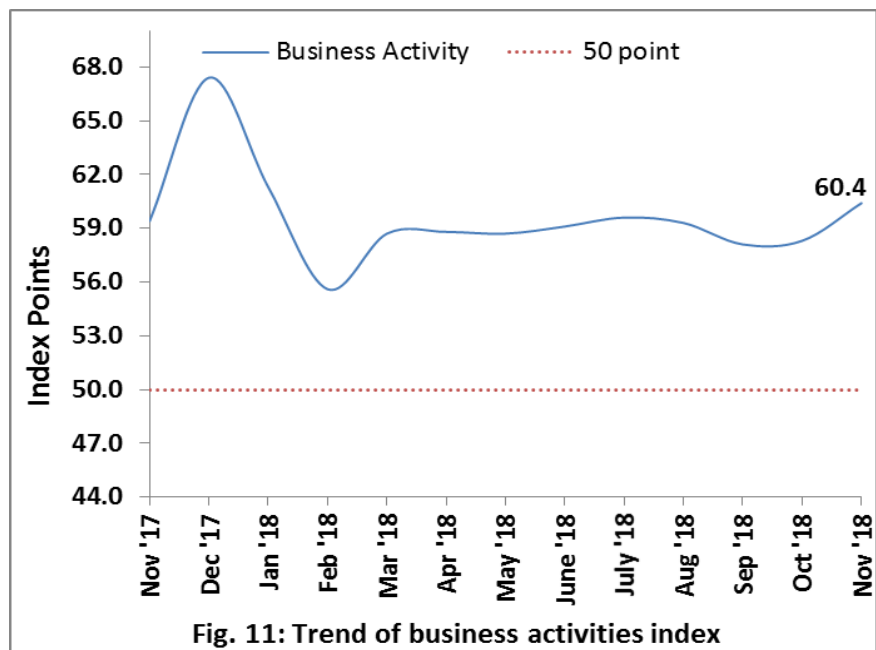
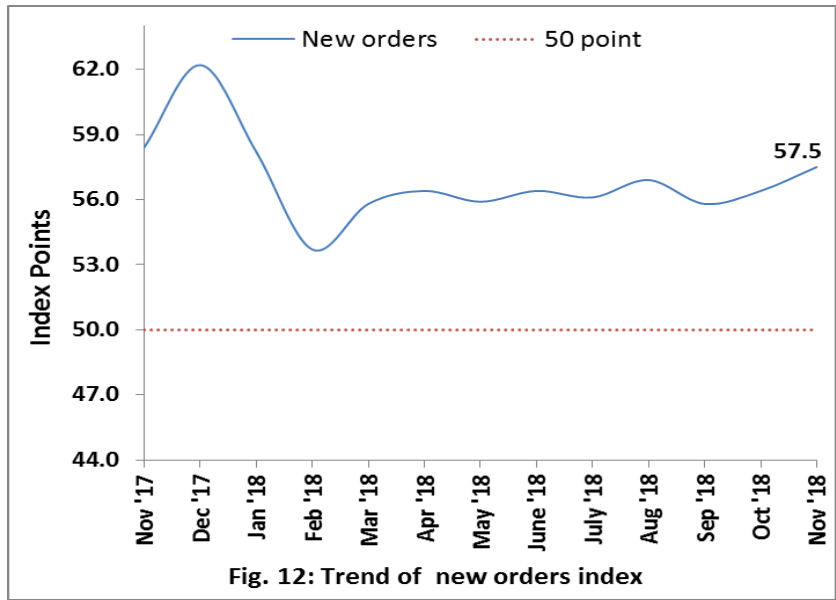


Fig. 11: Trend of business activities index

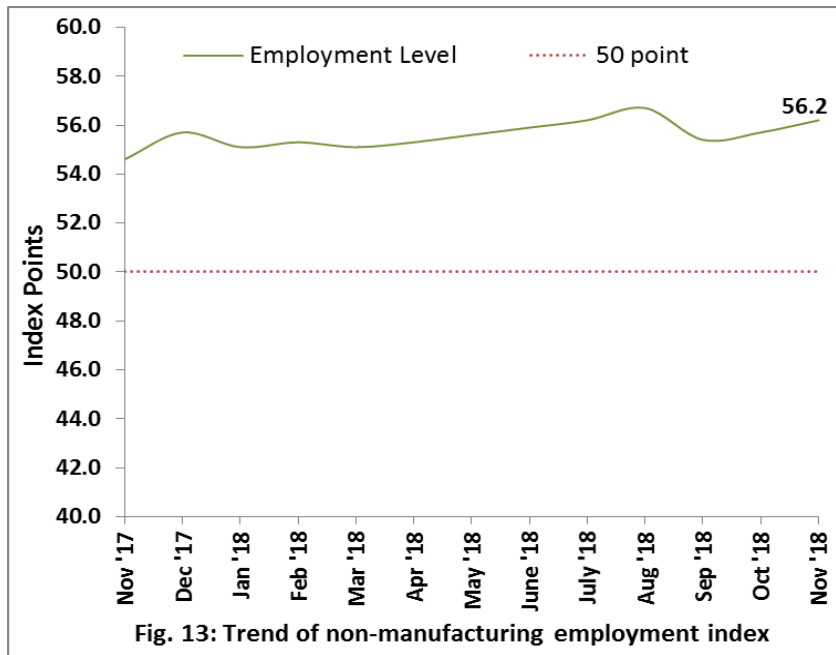
### 3.2 New Orders

At 57.5 points, new orders index grew for the twentieth consecutive month in November 2018. Of the 17 subsectors, 14 reported growth, 1 remained unchanged, while 2 recorded a decline in new orders (Fig 12 Table 9).



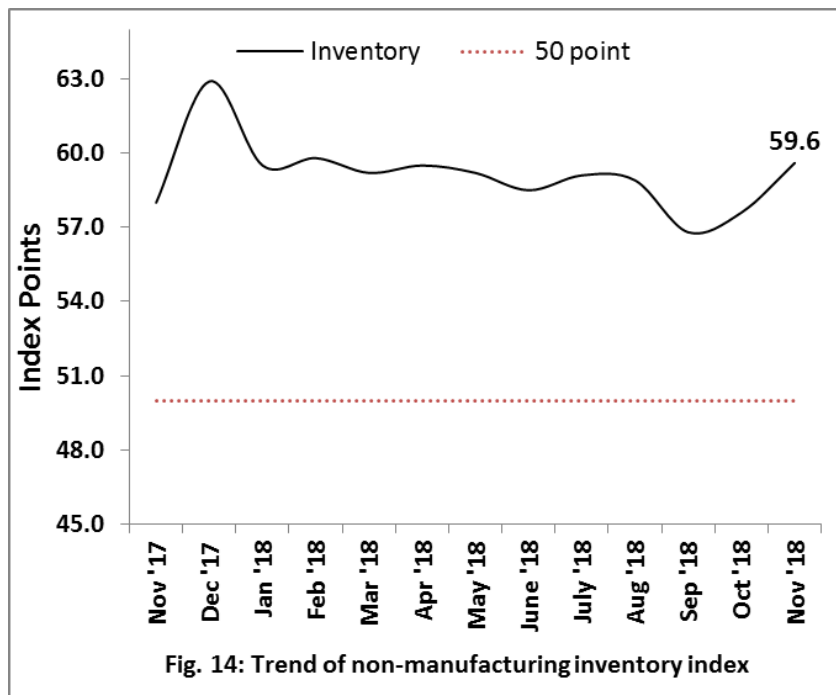
### 3.3 Employment Level

The employment level Index for the non-manufacturing sector stood at 56.2 points, indicating growth in employment for the nineteenth consecutive month. Fifteen subsectors recorded growth, 1 remained unchanged while 1 recorded decline in the review month (Fig 13 Table 10).



### 3.4 Non-manufacturing Inventory

At 59.6 points, non-manufacturing inventory index grew for the nineteenth consecutive month, indicating growth in inventories in the review period. All the seventeen surveyed subsectors recorded higher inventories in November 2018 (Fig 14 Table 11).



## APPENDICES

**Table 1: Manufacturing at a Glance**

Index	Series Index* October	Series Index* November	Difference	Direction	Rate of Change	Trend** (Months)
Composite PMI \1	56.8	57.9	1.1	Growing	Faster	20
Production level	58.9	59.9	1.0	Growing	Faster	21
New orders	56.8	58.1	1.3	Growing	Faster	20
Supplier delivery time	56.4	56.9	0.5	Growing	Faster	18
Employment level	54.8	55.4	0.6	Growing	Faster	19
Raw materials/WIP Inventory	56.2	58.7	2.5	Growing	Faster	20
New Export Orders	39.9	41.2	1.3	Declining	Slower	45
Output Prices	51.2	51.9	0.7	Growing	Faster	35
Input Prices	56.7	57.8	1.1	Growing	Faster	53
Quantity of Purchases	50.9	52.2	1.3	Growing	Faster	2
Outstanding Business/Backlog of Work	39.6	40.0	0.4	Declining	Slower	12
Stock of Finished Goods	51.5	53.8	2.3	Growing	Faster	8
<b>Manufacturing Sub-Sectors</b>						
Cement	59.2	60.6	1.4	Growing	Faster	2
Chemical & pharmaceutical products	59.1	57.1	-2.0	Growing	Slower	10
Electrical equipment	65.8	64.6	-1.2	Growing	Slower	10
Fabricated metal products	55.2	55.8	0.6	Growing	Faster	5
Food, beverage & tobacco products	55.6	60.1	4.5	Growing	Faster	26
Furniture & related products	57.5	62.6	5.1	Growing	Faster	6
Nonmetallic mineral products	54.2	55.1	0.9	Growing	Faster	6
Paper products	53.4	59.3	5.9	Growing	Faster	2
Petroleum & coal products	61.9	56.3	-5.6	Growing	Slower	2
Plastics & rubber products	56.2	57.4	1.2	Growing	Faster	4
Primary metal	43.3	50.5	7.2	Growing	From Contraction	1
Printing & related support activities	61.5	56.9	-4.6	Growing	Slower	8
Textile, apparel, leather & footwear	57.9	51.8	-6.1	Growing	Slower	21
Transportation equipment	57.0	57.5	0.5	Growing	Faster	3

\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: Production at a Glance**

Index	Series Index October	Series Index November	Difference	Direction	Rate of Change	Trend (Months)
PRODUCTION PMI	58.9	59.9	1.0	Growing	Faster	21
Cement	50.0	50.0	0.0	No Change	Flat	2
Chemical & pharmaceutical products	60.5	64.0	3.5	Growing	Faster	10
Electrical equipment	66.7	64.3	-2.4	Growing	Slower	10
Fabricated metal products	54.4	56.3	1.9	Growing	Faster	5
Food, beverage & tobacco products	61.7	61.0	-0.7	Growing	Slower	26
Furniture & related products	53.7	77.6	23.9	Growing	Faster	6
Nonmetallic mineral products	57.1	57.5	0.4	Growing	Faster	5
Paper products	50.0	54.5	4.5	Growing	From No Change	1
Petroleum & coal products	87.5	62.5	-25.0	Growing	Slower	2
Plastics & rubber products	68.4	52.0	-16.4	Growing	Slower	4
Primary metal	29.2	53.3	24.1	Growing	From Contraction	1
Printing & related support activities	57.1	54.5	-2.6	Growing	Slower	8
Textile, apparel, leather & footwear	54.8	52.3	-2.5	Growing	Slower	8
Transportation equipment	60.0	66.7	6.7	Growing	Faster	5



**Table 3: New Orders at a Glance**

Index	Series Index October	Series Index November	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	56.8	58.1	1.3	Growing	Faster	20
Cement	66.7	75.0	8.3	Growing	Faster	2
Chemical & pharmaceutical products	55.3	51.2	-4.1	Growing	Slower	9
Electrical equipment	75.0	78.6	3.6	Growing	Faster	10
Fabricated metal products	63.2	53.1	-10.1	Growing	Slower	5
Food, beverage & tobacco products	55.8	62.9	7.1	Growing	Faster	26
Furniture & related products	61.1	60.3	-0.8	Growing	Slower	6
Nonmetallic mineral products	38.1	55.0	16.9	Growing	From Contraction	1
Paper products	59.1	72.7	13.6	Growing	Faster	2
Petroleum & coal products	37.5	37.5	0.0	Declining	Flat	4
Plastics & rubber products	50.0	58.0	8.0	Growing	From No Change	1
Primary metal	45.8	50.0	4.2	No Change	From Contraction	1
Printing & related support activities	71.4	56.8	-14.6	Growing	Slower	7
Textile, apparel, leather & footwear	54.8	54.5	-0.3	Growing	Slower	6
Transportation equipment	50.0	33.3	-16.7	Declining	From No Change	1

**Table 4: Supplier Delivery Time at a Glance**

Index	Series Index October	Series Index November	Difference	Direction	Rate of Change	Trend (Months)
SUPPLIER DELIVERY TIME PMI	56.4	56.9	0.5	Growing	Faster	18
Cement	66.7	62.5	-4.2	Growing	Slower	4
Chemical & pharmaceutical products	59.2	57.0	-2.2	Growing	Slower	5
Electrical equipment	50.0	57.1	7.1	Growing	From No Change	1
Fabricated metal products	52.9	59.1	6.2	Growing	Faster	9
Food, beverage & tobacco products	52.9	57.1	4.2	Growing	Faster	5
Furniture & related products	51.9	43.1	-8.8	Declining	From Expansion	1
Nonmetallic mineral products	54.8	60.0	5.2	Growing	Faster	7
Paper products	63.6	68.2	4.6	Growing	Faster	6
Petroleum & coal products	75.0	62.5	-12.5	Growing	Slower	2
Plastics & rubber products	55.3	58.0	2.7	Growing	Faster	6
Primary metal	62.5	50.0	-12.5	No Change	From Expansion	1
Printing & related support activities	59.5	61.4	1.9	Growing	Faster	2
Textile, apparel, leather & footwear	59.5	56.8	-2.7	Growing	Slower	15
Transportation equipment	80.0	83.3	3.3	Growing	Faster	5

**Table 5: Employment Level at a Glance**

Index	Series Index October	Series Index November	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	54.8	55.4	0.6	Growing	Faster	19
Cement	58.3	50.0	-8.3	No Change	From Expansion	1
Chemical & pharmaceutical products	65.8	57.0	-8.8	Growing	Slower	10
Electrical equipment	66.7	50.0	-16.7	No Change	From Expansion	1
Fabricated metal products	45.6	57.6	12.0	Growing	From Contraction	1
Food, beverage & tobacco products	51.0	56.2	5.2	Growing	Faster	7
Furniture & related products	59.3	58.6	-0.7	Growing	Slower	7
Nonmetallic mineral products	71.4	50.0	-21.4	No Change	From Expansion	1
Paper products	50.0	50.0	0.0	No Change	Flat	2
Petroleum & coal products	50.0	62.5	12.5	Growing	From No Change	1
Plastics & rubber products	50.0	60.0	10.0	Growing	From No Change	1
Primary metal	45.8	50.0	4.2	No Change	From Contraction	1
Printing & related support activities	52.4	56.8	4.4	Growing	Faster	2
Textile, apparel, leather & footwear	57.1	45.5	-11.6	Declining	From Expansion	1
Transportation equipment	50.0	50.0	0.0	No Change	Flat	2

**Table 6: Raw Materials Inventory at a Glance**

Index	Series Index October	Series Index November	Difference	Direction	Rate of Change	Trend (Months)
RAW MATERIALS INVENTORY PMI	56.2	58.7	2.5	Growing	Faster	20
Cement	50.0	62.5	12.5	Growing	From No Change	1
Chemical & pharmaceutical products	53.9	58.1	4.2	Growing	Faster	6
Electrical equipment	58.3	64.3	6.0	Growing	Faster	12
Fabricated metal products	55.9	54.5	-1.4	Growing	Slower	2
Food, beverage & tobacco products	53.4	62.4	9.0	Growing	Faster	26
Furniture & related products	61.1	69.0	7.9	Growing	Faster	9
Nonmetallic mineral products	59.5	52.5	-7.0	Growing	Slower	2
Paper products	36.4	36.4	0.0	Declining	Flat	4
Petroleum & coal products	75.0	75.0	0.0	Growing	Flat	10
Plastics & rubber products	57.9	62.5	4.6	Growing	Faster	4
Primary metal	37.5	46.7	9.2	Declining	Slower	2
Printing & related support activities	64.3	56.8	-7.5	Growing	Slower	6
Textile, apparel, leather & footwear	73.8	47.7	-26.1	Declining	From Expansion	1
Transportation equipment	50.0	83.3	33.3	Growing	From No Change	1

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

Index	Series Index October	Series Index November	Difference	Direction	Rate of Change	Trend (Months)
Composite PMI \1	57.0	58.4	1.4	Growing	Faster	19
Business Activity	58.3	60.4	2.1	Growing	Faster	20
Level of new orders/customers/incoming business	56.4	57.5	1.1	Growing	Faster	20
Employment Level	55.7	56.2	0.5	Growing	Faster	19
Inventory	57.6	59.6	2.0	Growing	Faster	19
Average price of Inputs (volume weighted)	50.7	52.6	1.9	Growing	Faster	37
Level of outstanding business/ Backlog of work	42.8	42.0	-0.8	Declining	Faster	53
New Exports orders	39.7	38.7	-1.0	Declining	Faster	53
Imports	42.2	39.4	-2.8	Declining	Faster	53
Inventory (sentiments)	45.5	45.9	0.4	Declining	Slower	53
<b>Non-manufacturing sub-sectors</b>						
Accommodation & food services	56.1	55.5	-0.6	Growing	Slower	5
Agriculture	63.0	61.5	-1.5	Growing	Slower	30
Arts, Entertainment & Recreation	56.8	62.0	5.2	Growing	Faster	2
Construction	51.9	56.9	5.0	Growing	Faster	2
Educational services	60.1	60.7	0.6	Growing	Faster	5
Electricity, gas, steam & air conditioning supply	49.4	52.4	3.0	Growing	From Contraction	1
Finance & insurance	59.2	59.4	0.2	Growing	Faster	21
Health care & social assistance	55.0	56.8	1.8	Growing	Faster	19
Information & communication	61.8	59.7	-2.1	Growing	Slower	20
Management of companies	60.0	65.0	5.0	Growing	Faster	4
Professional, scientific, & technical services	46.4	57.6	11.2	Growing	From Contraction	1
Real estate rental & leasing	54.1	59.0	4.9	Growing	Faster	9
Repair, Maintenance/Washing Of Motor Vehicles...	68.3	62.5	-5.8	Growing	Slower	6
Transportation & warehousing	47.4	51.2	3.8	Growing	From Contraction	1
Utilities	59.7	46.3	-13.4	Declining	From Expansion	1
Water supply, sewage & waste management	45.8	65.2	19.4	Growing	From Contraction	1
Wholesale/Retail trade	61.9	60.8	-1.1	Growing	Slower	18

\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	Series Index October	Series Index November	Difference	Direction	Rate of Change	Trend (Months)
BUSINESS ACTIVITY PMI	58.3	60.4	2.1	Growing	Faster	20
Accommodation & food services	57.1	56.5	-0.6	Growing	Slower	5
Agriculture	66.0	68.0	2.0	Growing	Faster	30
Arts, Entertainment & Recreation	58.3	64.6	6.3	Growing	Faster	2
Construction	47.4	57.5	10.1	Growing	From Contraction	1
Educational services	61.4	60.6	-0.8	Growing	Slower	15
Electricity, gas, steam & air conditioning supply	42.5	45.2	2.7	Declining	Slower	3
Finance & insurance	60.6	63.2	2.6	Growing	Faster	20
Health care & social assistance	53.4	56.1	2.7	Growing	Faster	2
Information & communication	70.4	62.2	-8.2	Growing	Slower	20
Management of companies	66.7	63.3	-3.4	Growing	Slower	4
Professional, scientific, & technical services	50.0	58.7	8.7	Growing	From No Change	1
Real estate rental & leasing	57.0	62.0	5.0	Growing	Faster	7
Repair, Maintenance/Washing Of Motor Vehicles.	73.3	67.9	-5.4	Growing	Slower	2
Transportation & warehousing	39.5	57.1	17.6	Growing	From Contraction	1
Utilities	66.7	45.0	-21.7	Declining	From Expansion	1
Water supply, sewage & waste management	46.7	78.6	31.9	Growing	From Contraction	1
Wholesale/Retail trade	62.7	61.9	-0.8	Growing	Slower	5

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

Index	Series Index October	Series Index November	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	56.4	57.5	1.1	Growing	Faster	20
Accommodation & food services	57.1	51.9	-5.2	Growing	Slower	5
Agriculture	64.0	58.0	-6.0	Growing	Slower	7
Arts, Entertainment & Recreation	56.3	66.7	10.4	Growing	Faster	2
Construction	44.9	52.5	7.6	Growing	From Contraction	1
Educational services	56.1	60.9	4.8	Growing	Faster	5
Electricity, gas, steam & air conditioning supply	45.0	50.0	5.0	No Change	From Contraction	1
Finance & insurance	61.1	60.0	-1.1	Growing	Slower	21
Health care & social assistance	52.7	52.7	0.0	Growing	Flat	2
Information & communication	63.5	60.2	-3.3	Growing	Slower	20
Management of companies	56.7	63.3	6.6	Growing	Faster	3
Professional, scientific, & technical services	41.7	56.5	14.8	Growing	From Contraction	1
Real estate rental & leasing	48.8	59.8	11.0	Growing	From Contraction	1
Repair, Maintenance/Washing Of Motor Vehicles..	73.3	75.0	1.7	Growing	Faster	2
Transportation & warehousing	44.7	40.5	-4.2	Declining	Faster	2
Utilities	61.1	45.0	-16.1	Declining	From Expansion	1
Water supply, sewage & waste management	43.3	78.6	35.3	Growing	From Contraction	1
Wholesale/Retail trade	65.8	60.6	-5.2	Growing	Slower	18

**Table 10: Employment at a Glance**

Index	Series Index October	Series Index November	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	55.7	56.2	0.5	Growing	Faster	19
Accommodation & food services	55.1	57.0	1.9	Growing	Faster	3
Agriculture	60.0	56.0	-4.0	Growing	Slower	19
Arts, Entertainment & Recreation	60.4	56.3	-4.1	Growing	Slower	5
Construction	60.3	61.3	1.0	Growing	Faster	2
Educational services	61.4	63.6	2.2	Growing	Faster	5
Electricity, gas, steam & air conditioning supply	57.5	59.5	2.0	Growing	Faster	7
Finance & insurance	54.2	55.9	1.7	Growing	Faster	18
Health care & social assistance	56.0	54.4	-1.6	Growing	Slower	18
Information & communication	58.2	58.2	0.0	Growing	Flat	2
Management of companies	56.7	63.3	6.6	Growing	Faster	3
Professional, scientific, & technical services	44.0	63.0	19.0	Growing	From Contraction	1
Real estate rental & leasing	51.2	54.3	3.1	Growing	Faster	6
Repair, Maintenance/Washing Of Motor Vehicles..	63.3	53.6	-9.7	Growing	Slower	13
Transportation & warehousing	55.3	54.8	-0.5	Growing	Slower	8
Utilities	50.0	40.0	-10.0	Declining	From No Change	1
Water supply, sewage & waste management	43.3	50.0	6.7	No Change	From Contraction	1
Wholesale/Retail trade	55.7	50.6	-5.1	Growing	Slower	6

**Table 11: Inventory at a Glance**

Index	Series Index October	Series Index November	Difference	Direction	Rate of Change	Trend (Months)
INVENTORY PMI	57.6	59.6	2.0	Growing	Faster	19
Accommodation & food services	55.1	56.7	1.6	Growing	Faster	5
Agriculture	62.0	64.0	2.0	Growing	Faster	2
Arts, Entertainment & Recreation	52.1	60.4	8.3	Growing	Faster	2
Construction	55.1	56.3	1.2	Growing	Faster	5
Educational services	61.4	57.6	-3.8	Growing	Slower	5
Electricity, gas, steam & air conditioning supply	52.5	54.8	2.3	Growing	Faster	2
Finance & insurance	60.8	58.6	-2.2	Growing	Slower	10
Health care & social assistance	57.8	64.0	6.2	Growing	Faster	19
Information & communication	55.1	58.2	3.1	Growing	Faster	7
Management of companies	60.0	70.0	10.0	Growing	Faster	4
Professional, scientific, & technical services	50.0	52.2	2.2	Growing	From No Change	1
Real estate rental & leasing	59.3	59.8	0.5	Growing	Faster	9
Repair, Maintenance/Washing Of Motor Vehicles	63.3	53.6	-9.7	Growing	Slower	2
Transportation & warehousing	50.0	52.4	2.4	Growing	From No Change	1
Utilities	61.1	55.0	-6.1	Growing	Slower	4
Water supply, sewage & waste management	50.0	53.6	3.6	Growing	From No Change	1
Wholesale/Retail trade	63.3	70.0	6.7	Growing	Faster	16

**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

**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