

Central Bank of Nigeria



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

Statistics Department

August 2018

PURCHASING MANAGERS' INDEX (PMI) AUGUST 2018 REPORT

1.0 Introduction

The August 2018 PMI survey was conducted by the Statistics Department of the Central Bank of Nigeria during the period August 9-17, 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.

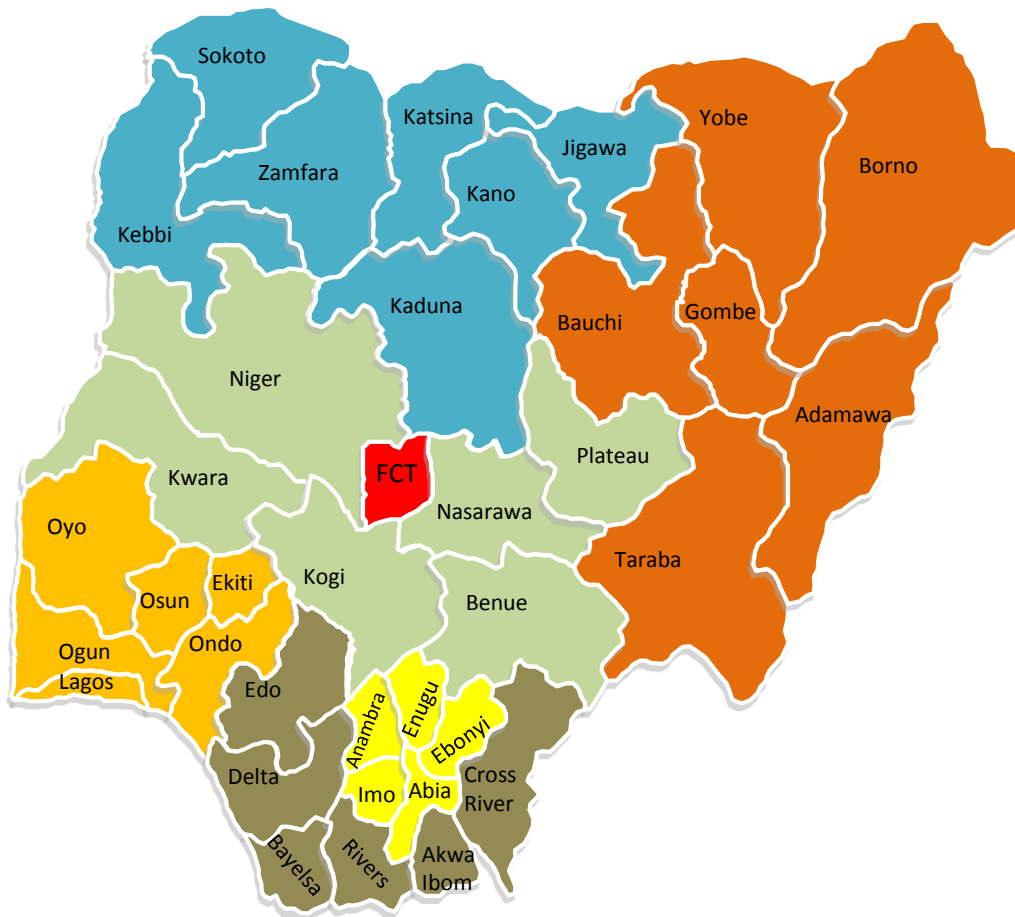


Fig. 1: Map of Nigeria Showing the 36 States and the FCT

1.1 Data and Method of Presentation

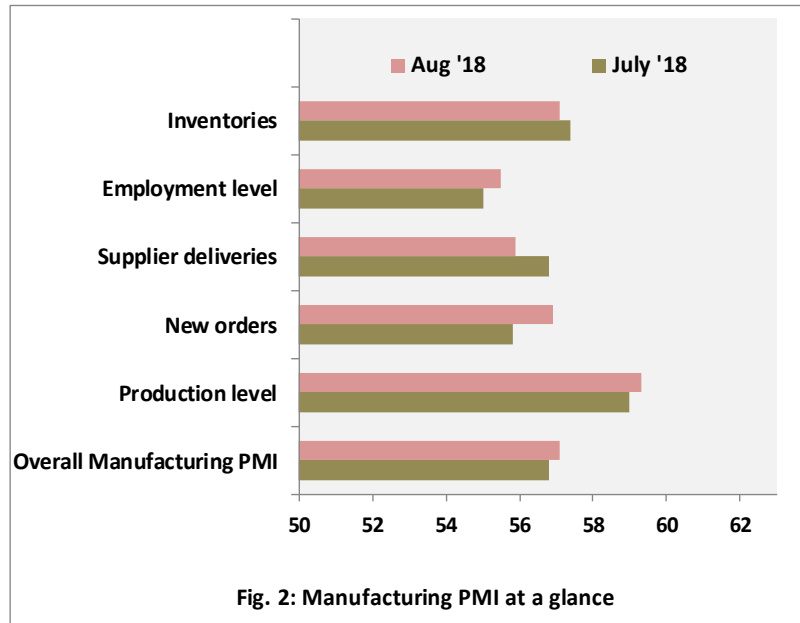
The *Manufacturing and Non-Manufacturing PMI Report* on businesses is based on survey responses, indicating the *changes* in the level of business activities in the *current month* compared with the *preceding month*. For each of the indicators measured, this report shows the diffusion index of the responses.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

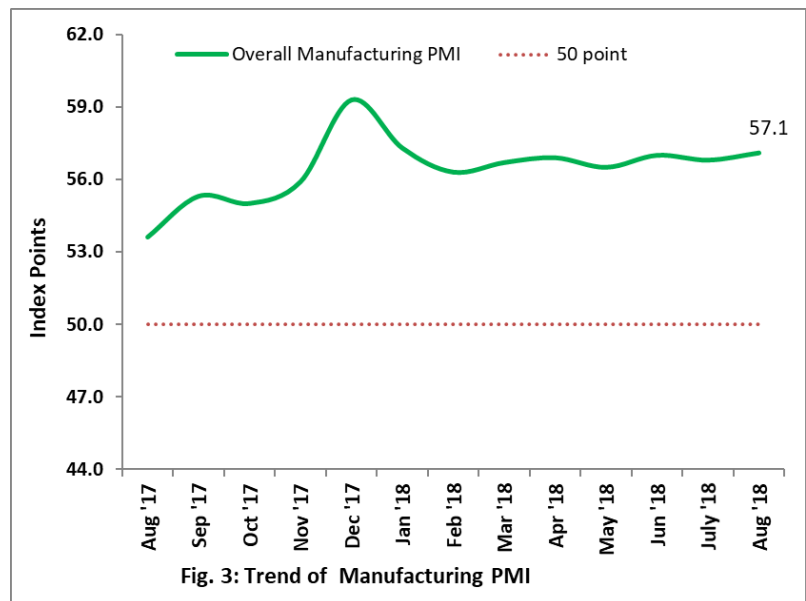
A composite PMI above 50 points indicates that the manufacturing/non-manufacturing economy is generally expanding, 50 points indicates no change and below 50 points indicates that it is generally contracting. The subsectors reporting growth are listed in the order of highest to lowest growth, while those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

2.0 Manufacturing PMI Report

Production level, new orders and employment level grew at a faster rate; supplier delivery time and inventories grew at a slower rate in August 2018

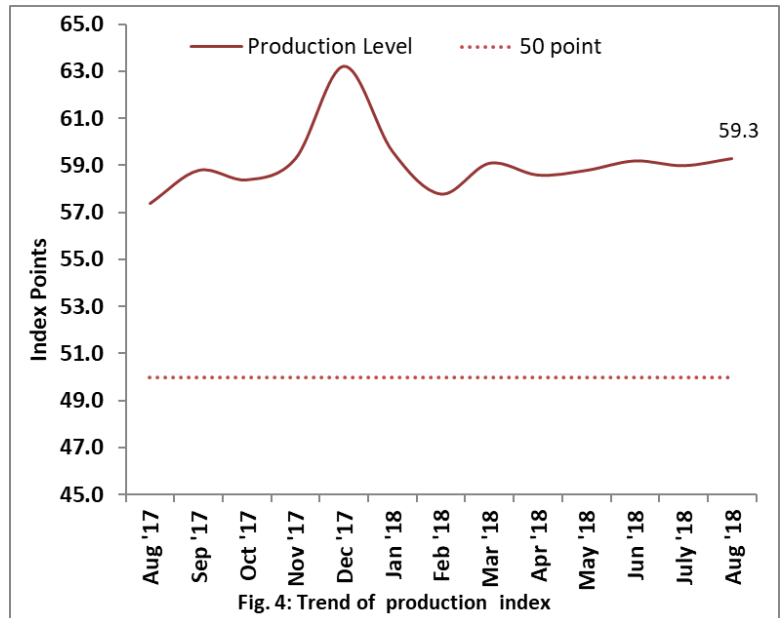


The *Manufacturing PMI* in the month of August stood at 57.1 index points, indicating expansion in the manufacturing sector for the seventeenth consecutive month (Fig. 3 and Table 1). The index however grew at a faster rate when compared to the index in the previous month. Of the 14 subsectors surveyed, 13 reported growth in the review month in the following order: electrical equipment; nonmetallic mineral products; cement; furniture & related products; plastics & rubber products; textile, apparel, leather & footwear; petroleum & coal products; chemical & pharmaceutical products; paper products; fabricated metal products; printing & related support activities; food, beverage & tobacco products and primary metal. The transportation equipment subsector declined in the review month.



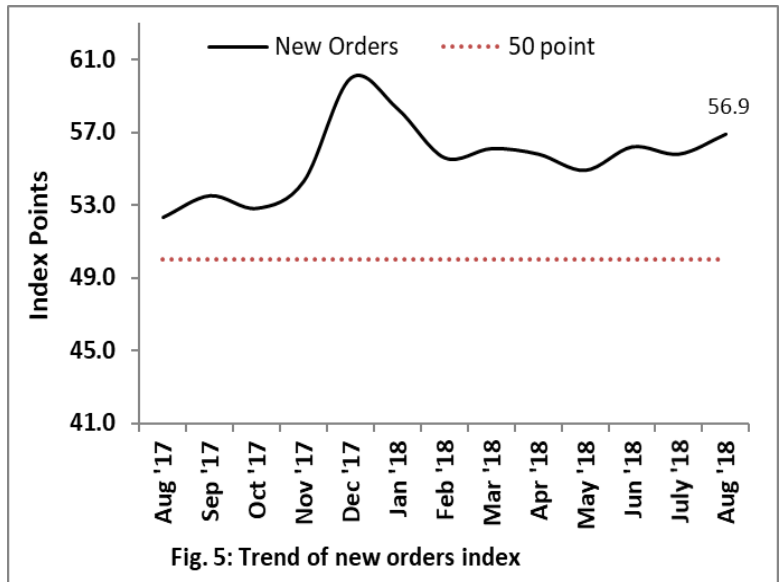
2.1 Production Level

At 59.3 points, the production level index for the manufacturing sector grew for the eighteenth consecutive month in August 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 increases in production level, while 1 declined (Fig. 4 and Table 2).



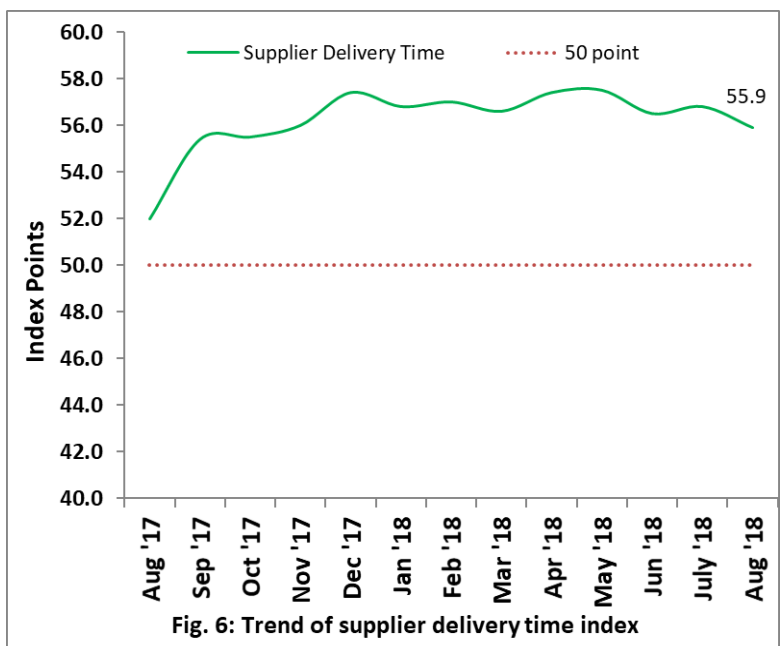
2.2 New Orders

At 56.9 points, the new orders index grew for the seventeenth consecutive month, indicating increase in new orders in August 2018. Eleven subsectors reported growth, 1 remained unchanged, while 2 contracted in the review month (Fig. 5 and Table 3).



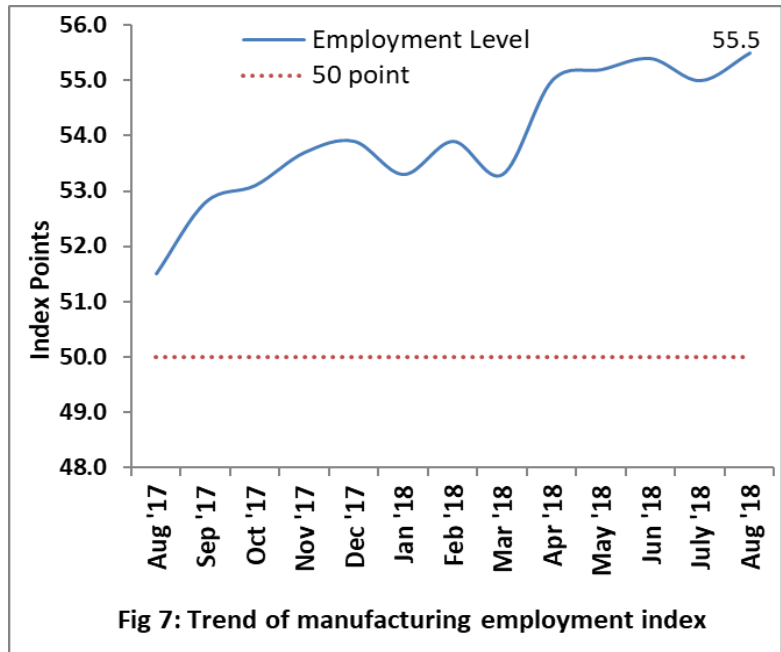
2.3 Supplier Delivery Time

The manufacturing supplier delivery time index stood at 55.9 points in August 2018, indicating faster supplier delivery time for the fifteenth consecutive month. Ten subsectors recorded improved suppliers' delivery time, 1 remained unchanged while 3 reported worsening delivery times (Fig. 6 and Table 4).



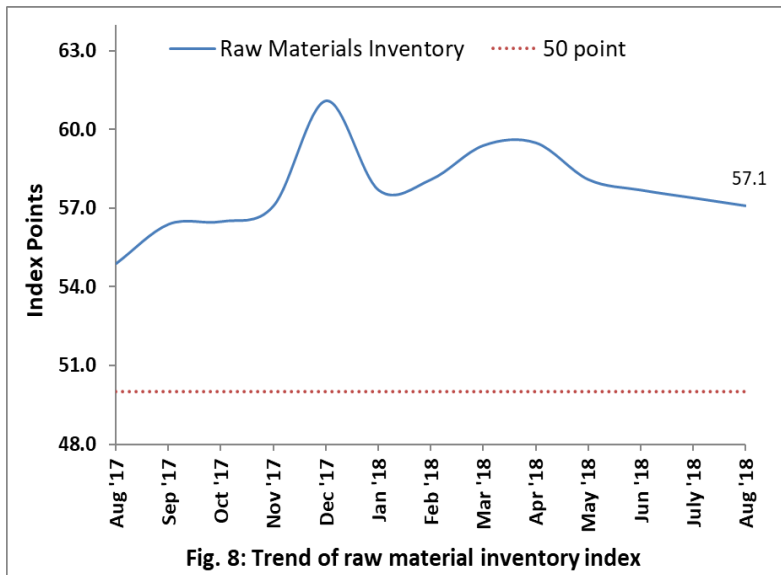
2.4 Employment Level

The employment level index in August 2018 stood at 55.5 points, indicating growth in employment level for the sixteenth consecutive month. Of the 14 subsectors, 9 reported increased employment level, 3 remained unchanged while 3 reported reduced employment level in the review month (Fig. 7 and Table 5).



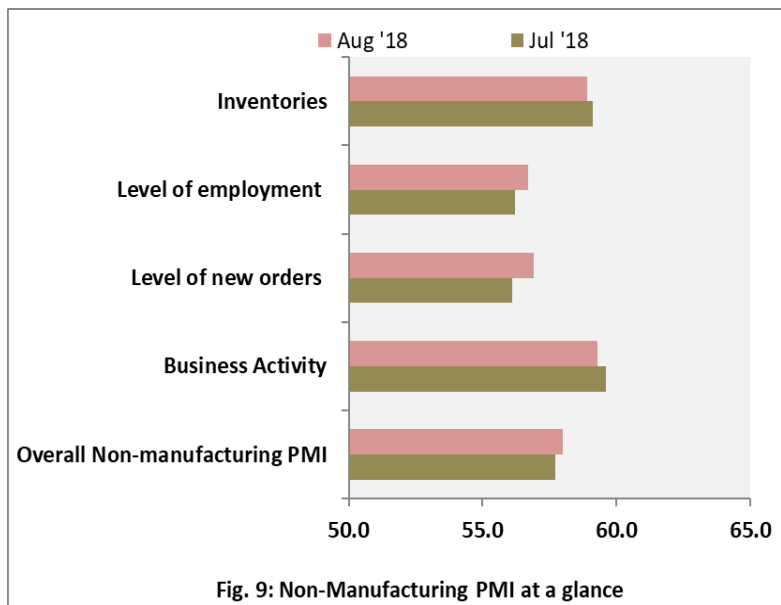
2.5 Raw material Inventories

The Manufacturing sector inventories index grew for the seventeenth consecutive month in August 2018. At 57.1 points, the index grew at a slower rate when compared to its level in the previous month. 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 and inventories grew at a slower rate; while new orders and employment level grew at a faster rate in August 2018



The *composite PMI* for the *non-manufacturing* sector stood at 58.0 points in August 2018, indicating expansion in the Non-manufacturing PMI for the sixteenth consecutive month. The index grew at a faster rate when compared to that in July 2018. Fourteen of the 17 subsectors recorded growth in the following order: agriculture; repair, maintenance/washing of motor vehicles; information & communication; water supply,

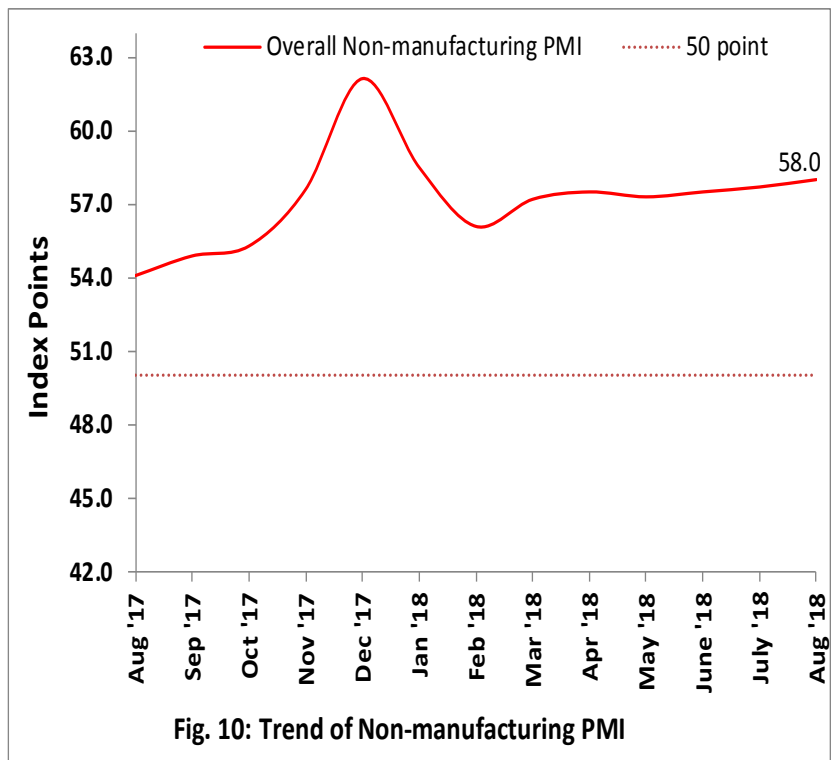


Fig. 10: Trend of Non-manufacturing PMI

sewage & waste management; educational services; wholesale/retail trade; finance & insurance; arts, entertainment & recreation; real estate rental & leasing; health care & social assistance; transportation & warehousing; management of companies; accommodation & food services; electricity, gas, steam & air conditioning supply. The public administration subsector remained unchanged, while utilities; professional, scientific & technical services and construction subsectors recorded contractions in the review period (Fig. 10 and Table 7).

3.1 Business Activity

At 59.3 points, the business activity index grew for the seventeenth consecutive month, indicating expansion in non-manufacturing business activity in August 2018. The index grew at a slower rate when compared to its level in the previous month. Fourteen subsectors recorded growth in business activity, while 3 declined in the review month (Fig. 11 and Table 8).

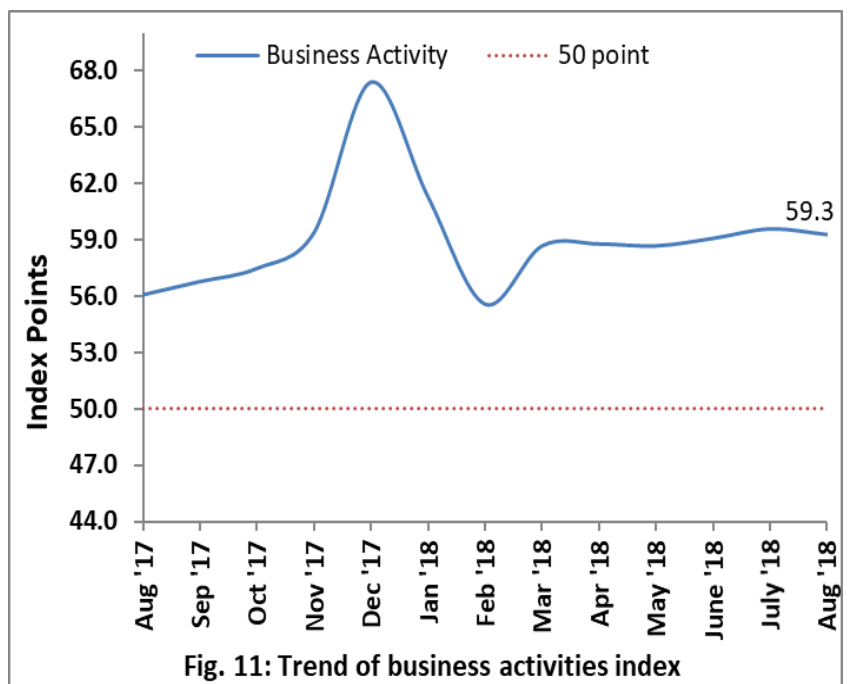
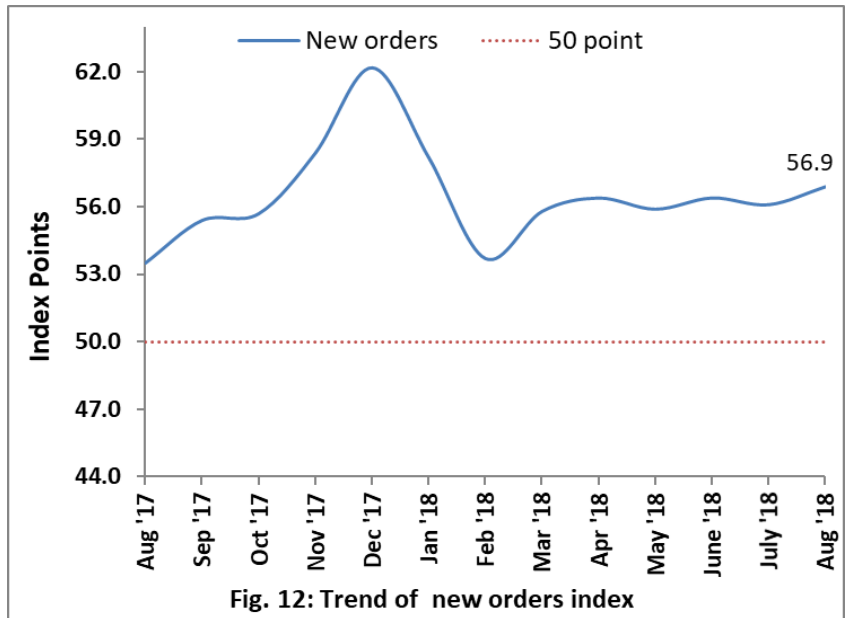


Fig. 11: Trend of business activities index

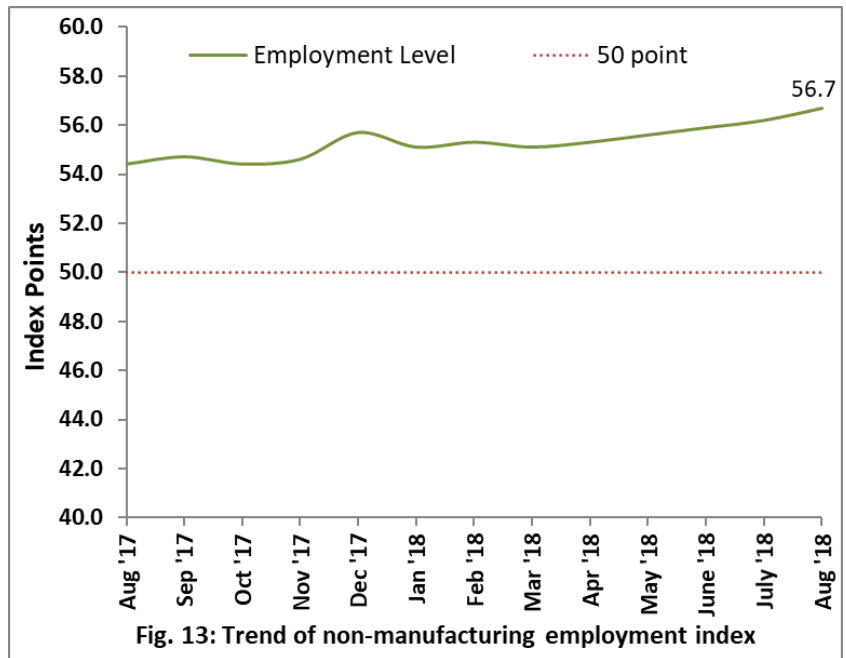
3.2 New Orders

At 56.9 points, new orders index grew for the seventeenth consecutive month in August 2018. Of the 17 subsectors, 11 reported growth, 4 remained unchanged, while 2 recorded a decline (Fig. 12 and Table 9).



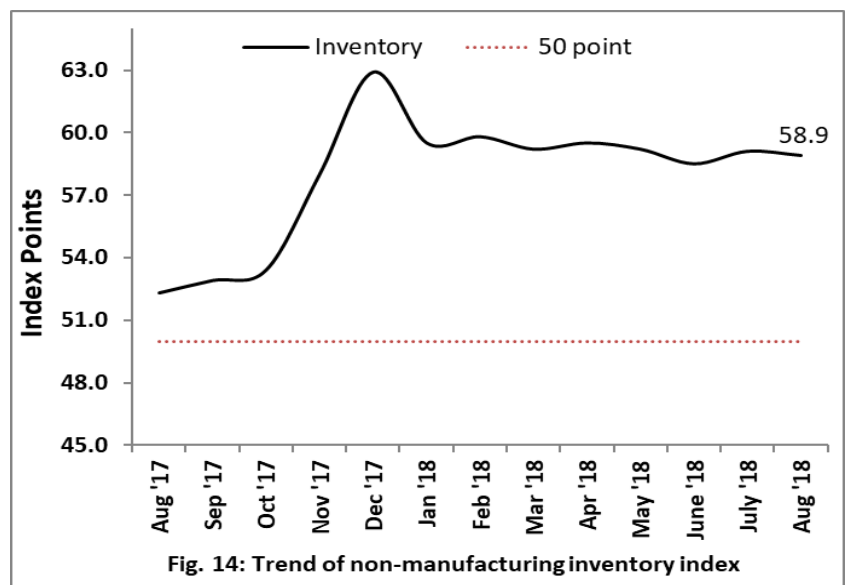
3.3 Employment Level

The employment level Index for the non-manufacturing sector stood at 56.7 points, indicating growth in employment for the sixteenth consecutive month. Thirteen subsectors recorded growth, 2 remained unchanged while 2 recorded decline in the review month (Fig. 13 and Table 10).



3.4 Non-manufacturing Inventory

At 58.9 points, non-manufacturing inventory index grew for the sixteenth consecutive month, indicating growth in inventories in the review period. Sixteen subsectors recorded higher inventories,



while subsector 1 remained unchanged in August 2018 (Fig. 14 and Table 11).

APPENDICES

Table 1: Manufacturing at a Glance

Index	Series Index* July	Series Index* August	Difference	Direction	Rate of Change	Trend** (Months)
Composite PMI \1	56.8	57.1	0.3	Growing	Faster	17
Production level	59.0	59.3	0.3	Growing	Faster	18
New orders	55.8	56.9	1.1	Growing	Faster	17
Supplier delivery time	56.8	55.9	-0.9	Growing	Slower	15
Employment level	55.0	55.5	0.5	Growing	Faster	16
Raw materials/WIP Inventory	57.4	57.1	-0.3	Growing	Slower	17
New Export Orders	39.4	39.7	0.3	Declining	Slower	42
Output Prices	52.3	50.1	-2.2	Growing	Slower	32
Input Prices	60.7	59.3	-1.4	Growing	Slower	50
Quantity of Purchases	51.1	50.1	-1.0	Growing	Slower	2
Outstanding Business/Backlog of Work	40.7	43.1	2.4	Declining	Slower	9
Stock of Finished Goods	51.3	50.7	-0.6	Growing	Slower	5
Manufacturing Sub-Sectors						
Cement	55.0	61.3	6.3	Growing	Faster	2
Chemical & pharmaceutical products	56.4	59.0	2.6	Growing	Faster	7
Electrical equipment	60.8	67.5	6.7	Growing	Faster	7
Fabricated metal products	54.4	56.9	2.5	Growing	Faster	2
Food, beverage & tobacco products	55.3	53.4	-1.9	Growing	Slower	23
Furniture & related products	59.8	60.8	1.0	Growing	Faster	3
Nonmetallic mineral products	57.8	62.4	4.6	Growing	Faster	3
Paper products	61.0	58.3	-2.7	Growing	Slower	16
Petroleum & coal products	77.5	59.2	-18.3	Growing	Slower	10
Plastics & rubber products	47.8	60.7	12.9	Growing	From Contraction	1
Primary metal	60.4	53.0	-7.4	Growing	Slower	2
Printing & related support activities	65.4	55.6	-9.8	Growing	Slower	5
Textile, apparel, leather & footwear	57.3	60.3	3.0	Growing	Faster	18
Transportation equipment	57.5	49.5	-8.0	Declining	From Expansion	1

\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 July	Series Index August	Difference	Direction	Rate of Change	Trend (Months)
PRODUCTION PMI	59.0	59.3	0.3	Growing	Faster	18
Cement	50.0	87.5	37.5	Growing	From No Change	1
Chemical & pharmaceutical products	59.1	63.6	4.5	Growing	Faster	7
Electrical equipment	66.7	75.0	8.3	Growing	Faster	7
Fabricated metal products	57.1	58.6	1.5	Growing	Faster	2
Food, beverage & tobacco products	55.5	53.2	-2.3	Growing	Slower	23
Furniture & related products	64.3	66.1	1.8	Growing	Faster	3
Nonmetallic mineral products	63.9	69.0	5.1	Growing	Faster	2
Paper products	65.0	60.0	-5.0	Growing	Slower	5
Petroleum & coal products	83.3	83.3	0.0	Growing	Flat	5
Plastics & rubber products	50.0	63.6	13.6	Growing	From No Change	1
Primary metal	65.4	46.4	-19.0	Declining	From Expansion	1
Printing & related support activities	71.1	55.6	-15.5	Growing	Slower	5
Textile, apparel, leather & footwear	58.7	55.3	-3.4	Growing	Slower	5
Transportation equipment	62.5	60.0	-2.5	Growing	Slower	2

Table 3: New Orders at a Glance

Index	Series Index July	Series Index August	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	55.8	56.9	1.1	Growing	Faster	17
Cement	62.5	62.5	0.0	Growing	Flat	2
Chemical & pharmaceutical products	54.4	55.7	1.3	Growing	Faster	6
Electrical equipment	58.3	75.0	16.7	Growing	Faster	7
Fabricated metal products	51.8	57.1	5.3	Growing	Faster	2
Food, beverage & tobacco products	55.5	53.7	-1.8	Growing	Slower	23
Furniture & related products	55.4	62.5	7.1	Growing	Faster	3
Nonmetallic mineral products	47.2	57.1	9.9	Growing	From Contraction	1
Paper products	60.0	65.0	5.0	Growing	Faster	4
Petroleum & coal products	83.3	33.3	-50.0	Declining	From Expansion	1
Plastics & rubber products	44.4	63.6	19.2	Growing	From Contraction	1
Primary metal	61.5	50.0	-11.5	No Change	From Expansion	1
Printing & related support activities	71.1	61.1	-10.0	Growing	Slower	4
Textile, apparel, leather & footwear	60.9	63.2	2.3	Growing	Faster	3
Transportation equipment	62.5	30.0	-32.5	Declining	From Expansion	1

Table 4: Supplier Delivery Time at a Glance

Index	Series Index July	Series Index August	Difference	Direction	Rate of Change	Trend (Months)
SUPPLIER DELIVERY TIME PMI	56.8	55.9	-0.9	Growing	Slower	15
Cement	50.0	62.5	12.5	Growing	From No Change	1
Chemical & pharmaceutical products	57.8	59.1	1.3	Growing	Faster	2
Electrical equipment	50.0	58.3	8.3	Growing	From No Change	1
Fabricated metal products	58.9	61.4	2.5	Growing	Faster	6
Food, beverage & tobacco products	58.2	54.2	-4.0	Growing	Slower	2
Furniture & related products	50.0	46.4	-3.6	Declining	From No Change	1
Nonmetallic mineral products	58.3	64.3	6.0	Growing	Faster	4
Paper products	75.0	65.0	-10.0	Growing	Slower	3
Petroleum & coal products	33.3	33.3	0.0	Declining	Flat	2
Plastics & rubber products	55.6	59.1	3.5	Growing	Faster	3
Primary metal	57.7	50.0	-7.7	No Change	From Expansion	1
Printing & related support activities	47.2	44.1	-3.1	Declining	Faster	2
Textile, apparel, leather & footwear	56.5	55.3	-1.2	Growing	Slower	12
Transportation equipment	87.5	90.0	2.5	Growing	Faster	2

Table 5: Employment Level at a Glance

Index	Series Index July	Series Index August	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	55.0	55.5	0.5	Growing	Faster	16
Cement	50.0	37.5	-12.5	Declining	From No Change	1
Chemical & pharmaceutical products	54.4	59.1	4.7	Growing	Faster	7
Electrical equipment	58.3	41.7	-16.6	Declining	From Expansion	1
Fabricated metal products	51.8	50.0	-1.8	No Change	From Expansion	1
Food, beverage & tobacco products	52.7	53.3	0.6	Growing	Faster	4
Furniture & related products	66.1	58.9	-7.2	Growing	Slower	4
Nonmetallic mineral products	63.9	61.9	-2.0	Growing	Slower	2
Paper products	50.0	50.0	0.0	No Change	Flat	3
Petroleum & coal products	83.3	66.7	-16.6	Growing	Slower	2
Plastics & rubber products	44.4	52.3	7.9	Growing	From Contraction	1
Primary metal	53.8	64.3	10.5	Growing	Faster	2
Printing & related support activities	63.2	52.8	-10.4	Growing	Slower	3
Textile, apparel, leather & footwear	50.0	68.4	18.4	Growing	From No Change	1
Transportation equipment	37.5	40.0	2.5	Declining	Slower	3

Table 6: Raw Materials Inventory at a Glance

Index	Series Index July	Series Index August	Difference	Direction	Rate of Change	Trend (Months)
RAW MATERIALS INVENTORY PMI	57.4	57.1	-0.3	Growing	Slower	17
Cement	62.5	37.5	-25.0	Declining	From Expansion	1
Chemical & pharmaceutical products	57.8	56.8	-1.0	Growing	Slower	3
Electrical equipment	75.0	91.7	16.7	Growing	Faster	9
Fabricated metal products	53.6	58.6	5.0	Growing	Faster	2
Food, beverage & tobacco products	54.4	51.9	-2.5	Growing	Slower	23
Furniture & related products	64.3	67.9	3.6	Growing	Faster	6
Nonmetallic mineral products	61.1	59.5	-1.6	Growing	Slower	3
Paper products	55.0	40.0	-15.0	Declining	From Expansion	1
Petroleum & coal products	100.0	100.0	0.0	Growing	Flat	7
Plastics & rubber products	47.2	63.6	16.4	Growing	From Contraction	1
Primary metal	61.5	60.7	-0.8	Growing	Slower	2
Printing & related support activities	65.8	61.8	-4.0	Growing	Slower	3
Textile, apparel, leather & footwear	58.7	55.3	-3.4	Growing	Slower	11
Transportation equipment	25.0	40.0	15.0	Declining	Slower	2

Table 7: Non-Manufacturing at a Glance

Index	Series Index July	Series Index August	Difference	Direction	Rate of Change	Trend (Months)
Composite PMI \1	57.7	58.0	0.3	Growing	Faster	16
Business Activity	59.6	59.3	-0.3	Growing	Slower	17
Level of new orders/customers/incoming business	56.1	56.9	0.8	Growing	Faster	17
Level of employment	56.2	56.7	0.5	Growing	Faster	16
Inventory	59.1	58.9	-0.2	Growing	Slower	16
Average price of Inputs (volume weighted)	52.1	50.8	-1.3	Growing	Slower	34
Level of outstanding business/ Backlog of work	43.1	43.3	0.2	Declining	Slower	50
New Exports orders	42.1	40.1	-2.0	Declining	Faster	50
Imports	40.5	40.3	-0.2	Declining	Faster	50
Inventory (sentiments)	45.0	44.8	-0.2	Declining	Faster	50
Non-manufacturing sub-sectors						
Accommodation & food services	54.7	54.4	-0.3	Growing	Slower	2
Agriculture	57.7	69.8	12.1	Growing	Faster	27
Arts, Entertainment & Recreation	56.6	58.8	2.2	Growing	Faster	2
Construction	51.3	49.6	-1.7	Declining	From Expansion	1
Educational services	57.9	60.9	3.0	Growing	Faster	2
Electricity, gas, steam & air conditioning supply	52.3	53.7	1.4	Growing	Faster	4
Finance & insurance	61.0	59.5	-1.5	Growing	Slower	18
Health care & social assistance	58.2	57.8	-0.4	Growing	Slower	16
Information & communication	68.3	65.0	-3.3	Growing	Slower	17
Management of companies	47.8	55.0	7.2	Growing	From Contraction	1
Professional, scientific, & technical services	56.5	48.3	-8.2	Declining	From Expansion	1
Real estate rental & leasing	57.7	58.1	0.4	Growing	Faster	6
Repair, Maintenance/Washing Of Motor Vehicles...	52.5	65.4	12.9	Growing	Faster	3
Transportation & warehousing	56.5	55.3	-1.2	Growing	Slower	4
Utilities	52.5	42.9	-9.6	Declining	From Expansion	1
Water supply, sewage & waste management	60.6	62.5	1.9	Growing	Faster	6
Wholesale/Retail trade	59.1	60.0	0.9	Growing	Faster	15

\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 July	Series Index August	Difference	Direction	Rate of Change	Trend (Months)
BUSINESS ACTIVITY PMI	59.6	59.3	-0.3	Growing	Slower	17
Accommodation & food services	56.3	57.2	0.9	Growing	Faster	2
Agriculture	58.7	70.7	12.0	Growing	Faster	27
Arts, Entertainment & Recreation	60.7	62.1	1.4	Growing	Faster	2
Construction	53.8	47.1	-6.7	Declining	From Expansion	1
Educational services	59.3	61.3	2.0	Growing	Faster	12
Electricity, gas, steam & air conditioning supply	55.6	53.7	-1.9	Growing	Slower	6
Finance & insurance	63.6	60.8	-2.8	Growing	Slower	17
Health care & social assistance	54.4	55.5	1.1	Growing	Faster	5
Information & communication	69.6	71.2	1.6	Growing	Faster	17
Management of companies	47.1	58.8	11.7	Growing	From Contraction	1
Professional, scientific, & technical services	58.6	43.3	-15.3	Declining	From Expansion	1
Real estate rental & leasing	67.9	66.3	-1.6	Growing	Slower	4
Repair, Maintenance/Washing Of Motor Vehicles...	45.0	69.2	24.2	Growing	From Contraction	1
Transportation & warehousing	56.0	56.3	0.3	Growing	Faster	2
Utilities	55.0	43.8	-11.2	Declining	From Expansion	1
Water supply, sewage & waste management	62.5	65.6	3.1	Growing	Faster	4
Wholesale/Retail trade	60.0	58.2	-1.8	Growing	Slower	2

Table 9: New Orders at a Glance

Index	Series Index July	Series Index August	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	56.1	56.9	0.8	Growing	Faster	17
Accommodation & food services	55.1	55.7	0.6	Growing	Faster	2
Agriculture	65.2	72.4	7.2	Growing	Faster	4
Arts, Entertainment & Recreation	48.8	50.0	1.2	No Change	From Contraction	1
Construction	43.6	51.4	7.8	Growing	From Contraction	1
Educational services	53.7	66.1	12.4	Growing	Faster	2
Electricity, gas, steam & air conditioning supply	46.3	57.4	11.1	Growing	From Contraction	1
Finance & insurance	56.6	60.2	3.6	Growing	Faster	18
Health care & social assistance	59.8	57.4	-2.4	Growing	Slower	5
Information & communication	74.0	65.4	-8.6	Growing	Slower	17
Management of companies	41.2	50.0	8.8	No Change	From Contraction	1
Professional, scientific, & technical services	55.2	43.3	-11.9	Declining	From Expansion	1
Real estate rental & leasing	51.2	50.0	-1.2	No Change	From Expansion	1
Repair, Maintenance/Washing Of Motor Vehicles...	45.0	65.4	20.4	Growing	From Contraction	1
Transportation & warehousing	56.0	50.0	-6.0	No Change	From Expansion	1
Utilities	65.0	27.8	-37.2	Declining	From Expansion	1
Water supply, sewage & waste management	63.3	65.6	2.3	Growing	Faster	3
Wholesale/Retail trade	57.9	57.6	-0.3	Growing	Slower	15

Table 10: Employment at a Glance

Index	Series Index July	Series Index August	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	56.2	56.7	0.5	Growing	Faster	16
Accommodation & food services	50.6	50.0	-0.6	No Change	From Expansion	1
Agriculture	54.3	69.0	14.7	Growing	Faster	16
Arts, Entertainment & Recreation	61.9	59.1	-2.8	Growing	Slower	2
Construction	52.6	48.6	-4.0	Declining	From Expansion	1
Educational services	57.4	59.7	2.3	Growing	Faster	2
Electricity, gas, steam & air conditioning supply	53.7	53.7	0.0	Growing	Flat	4
Finance & insurance	57.6	54.9	-2.7	Growing	Slower	15
Health care & social assistance	57.8	59.3	1.5	Growing	Faster	15
Information & communication	58.8	60.4	1.6	Growing	Faster	6
Management of companies	52.9	50.0	-2.9	No Change	From Expansion	1
Professional, scientific, & technical services	51.7	53.3	1.6	Growing	Faster	4
Real estate rental & leasing	51.2	58.1	6.9	Growing	Faster	3
Repair, Maintenance/Washing Of Motor Vehicles...	65.0	65.4	0.4	Growing	Faster	10
Transportation & warehousing	62.0	58.3	-3.7	Growing	Slower	5
Utilities	50.0	44.4	-5.6	Declining	From No Change	1
Water supply, sewage & waste management	63.3	59.4	-3.9	Growing	Slower	2
Wholesale/Retail trade	58.6	62.0	3.4	Growing	Faster	3

Table 11: Inventory at a Glance

Index	Series Index July	Series Index August	Difference	Direction	Rate of Change	Trend (Months)
INVENTORY PMI	59.1	58.9	-0.2	Growing	Slower	16
Accommodation & food services	56.9	54.7	-2.2	Growing	Slower	2
Agriculture	52.5	67.2	14.7	Growing	Faster	10
Arts, Entertainment & Recreation	54.9	64.1	9.2	Growing	Faster	11
Construction	55.1	51.5	-3.6	Growing	Slower	2
Educational services	61.1	56.7	-4.4	Growing	Slower	2
Electricity, gas, steam & air conditioning supply	53.7	50.0	-3.7	No Change	From Expansion	1
Finance & insurance	66.2	61.9	-4.3	Growing	Slower	7
Health care & social assistance	60.9	59.3	-1.6	Growing	Slower	16
Information & communication	70.6	63.2	-7.4	Growing	Slower	4
Management of companies	50.0	61.1	11.1	Growing	From No Change	1
Professional, scientific, & technical services	60.3	53.3	-7.0	Growing	Slower	9
Real estate rental & leasing	60.7	58.1	-2.6	Growing	Slower	6
Repair, Maintenance/Washing Of Motor Vehicles...	55.0	61.5	6.5	Growing	Faster	2
Transportation & warehousing	52.0	56.5	4.5	Growing	Faster	3
Utilities	40.0	55.6	15.6	Growing	From Contraction	1
Water supply, sewage & waste management	53.1	59.4	6.3	Growing	Faster	9
Wholesale/Retail trade	60.1	62.0	1.9	Growing	Faster	13

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

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