

Central Bank of Nigeria



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

Statistics Department

July 2018

PURCHASING MANAGERS' INDEX (PMI) JULY 2018 REPORT

1.0 Introduction

The July 2018 PMI survey was conducted by the Statistics Department of the Central Bank of Nigeria during the period July 12 - 20, 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.

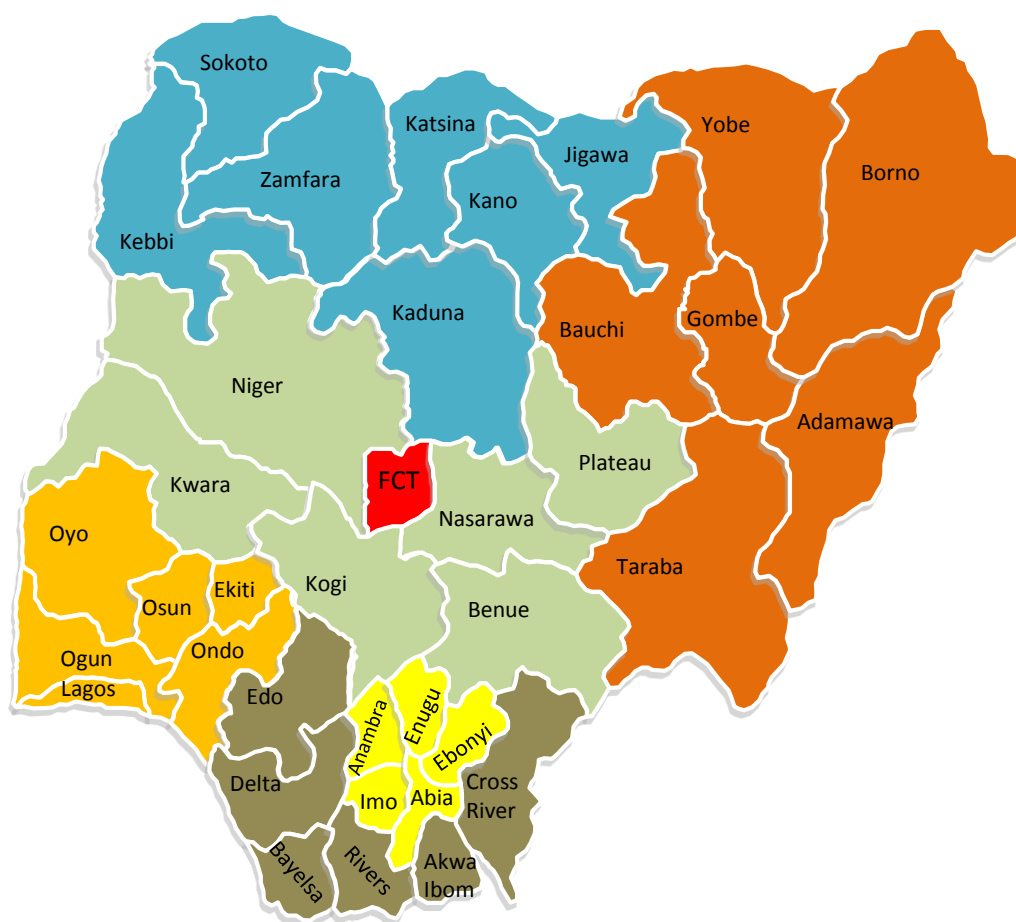


Fig. 1: Map of Nigeria Showing the 36 States and the FCT

1.1 Data and Method of Presentation

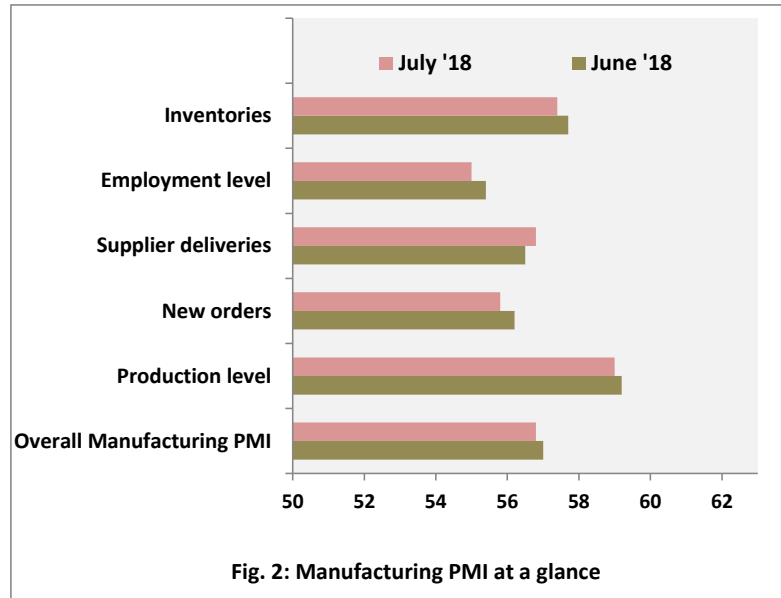
The *Manufacturing and Non-Manufacturing PMI Report* on businesses is based on survey responses, indicating the *changes* in the level of business activities in the *current month* compared with the *preceding month*. For each of the indicators measured, this report shows the diffusion index of the responses.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

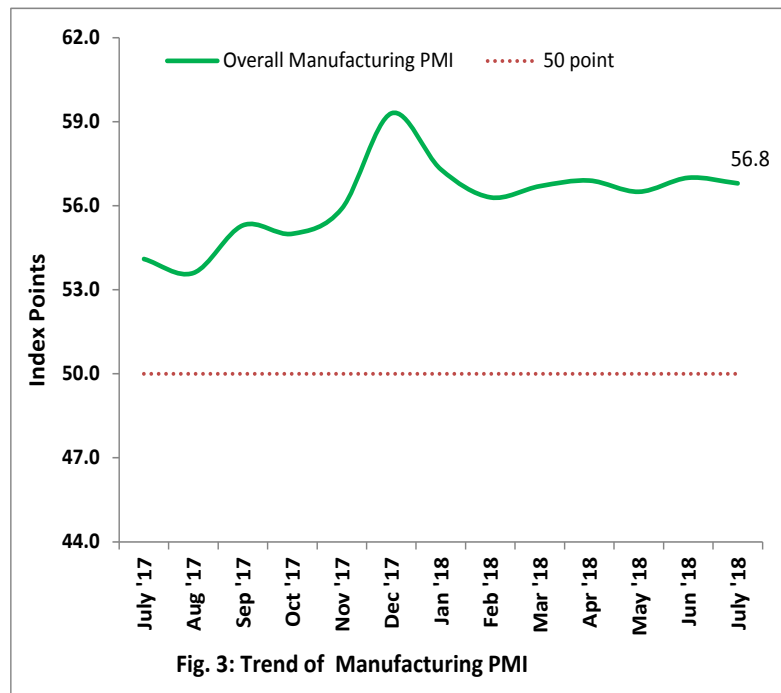
A composite PMI above 50 points indicates that the manufacturing/non-manufacturing economy is generally expanding, 50 points indicates no change and below 50 points indicates that it is generally contracting. The subsectors reporting growth are listed in the order of highest to lowest growth, while those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

2.0 Manufacturing PMI Report

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

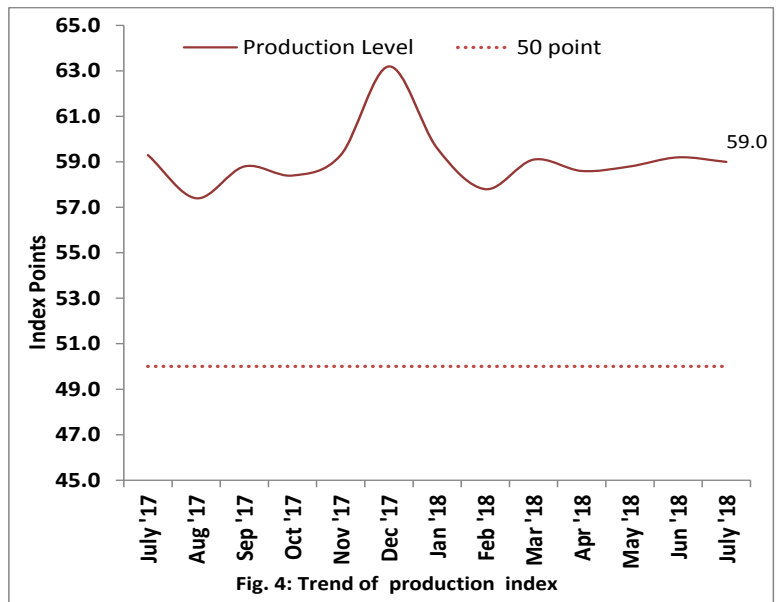


The *Manufacturing PMI* in the month of July stood at 56.8 index points, indicating expansion in the manufacturing sector for the sixteenth consecutive month. (Fig. 3 and Table 1). The index however grew at a slower rate when compared to the index in the previous month. Of the 14 subsectors surveyed, 13 reported growth in the review month in the following order: petroleum & coal products; printing & related support activities; paper products; electrical equipment; primary metal; furniture & related products; nonmetallic mineral products; transportation equipment; textile, apparel, leather & footwear; chemical & pharmaceutical products; food, beverage & tobacco products; cement; and fabricated metal products. The Plastics & rubber products subsector declined in the review month.



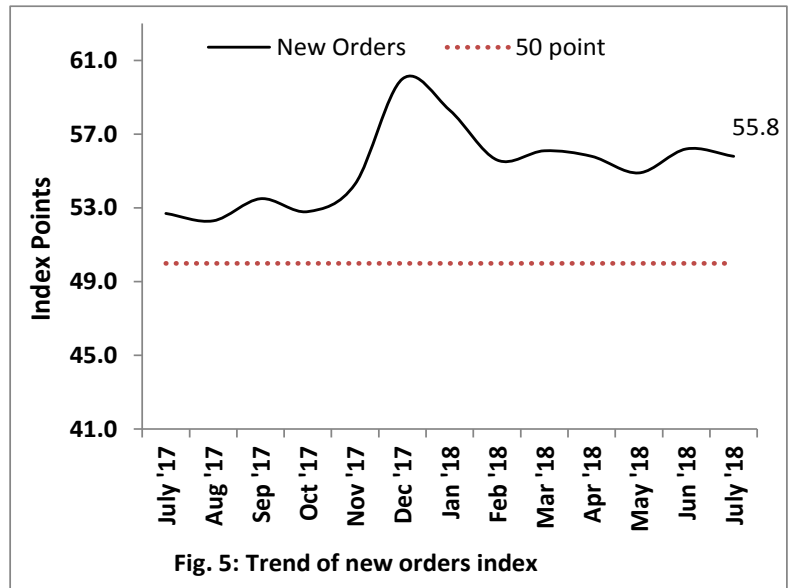
2.1 Production Level

At 59.0 points, the production level index for the manufacturing sector grew for the seventeenth consecutive month in July 2018. The index indicated a slower growth in the current month, when compared to its level in the preceding month. Twelve of the 14 manufacturing subsectors recorded increase in production level, while 2 remained unchanged (Fig. 4 and Table 2).



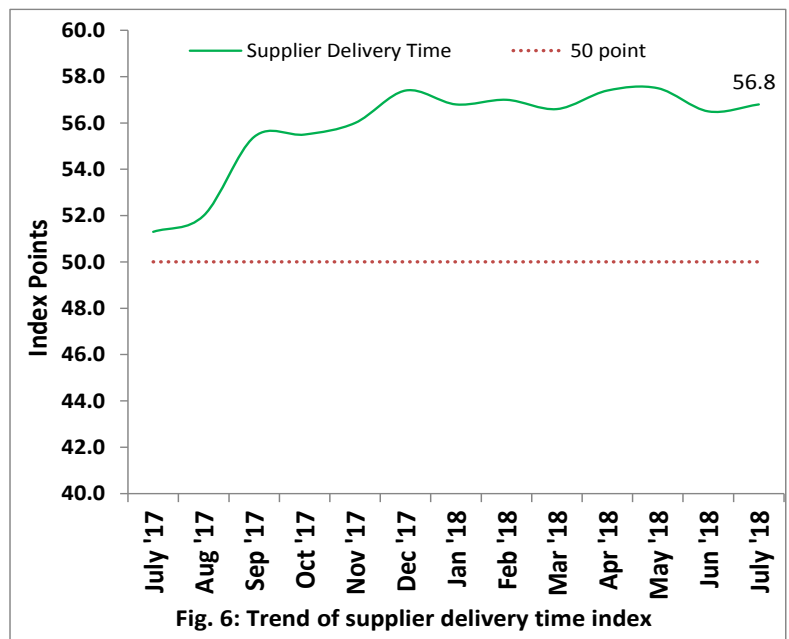
2.2 New Orders

At 55.8 points, the new orders index grew for the sixteenth consecutive month, indicating increase in new orders in July 2018. Twelve subsectors reported growth, while 2 contracted in the review month (Fig. 5 and Table 3).



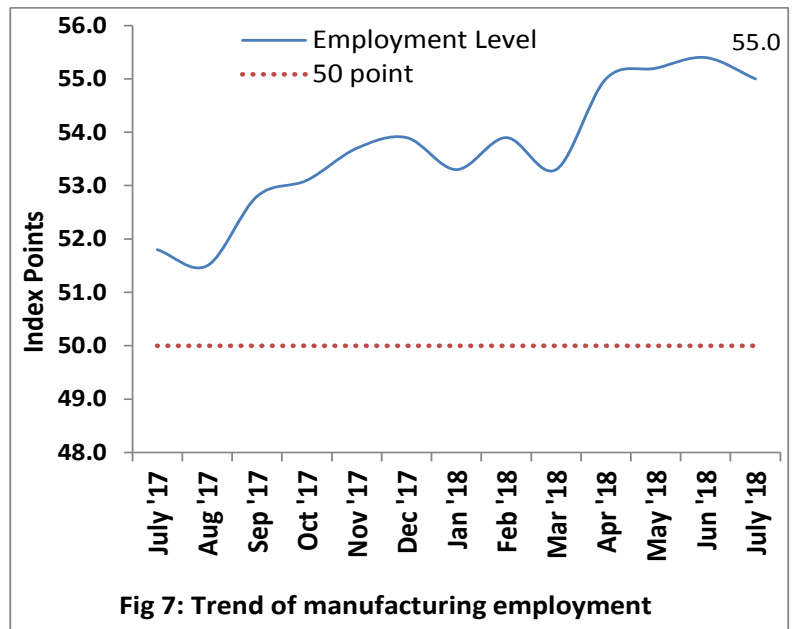
2.3 Supplier Delivery Time

The manufacturing supplier delivery time index stood at 56.8 points in July 2018, indicating faster supplier delivery time for the fourteenth consecutive month. Nine subsectors recorded improved suppliers' delivery time, 3 remained unchanged while 2 contracted (Fig. 6 and Table 4).



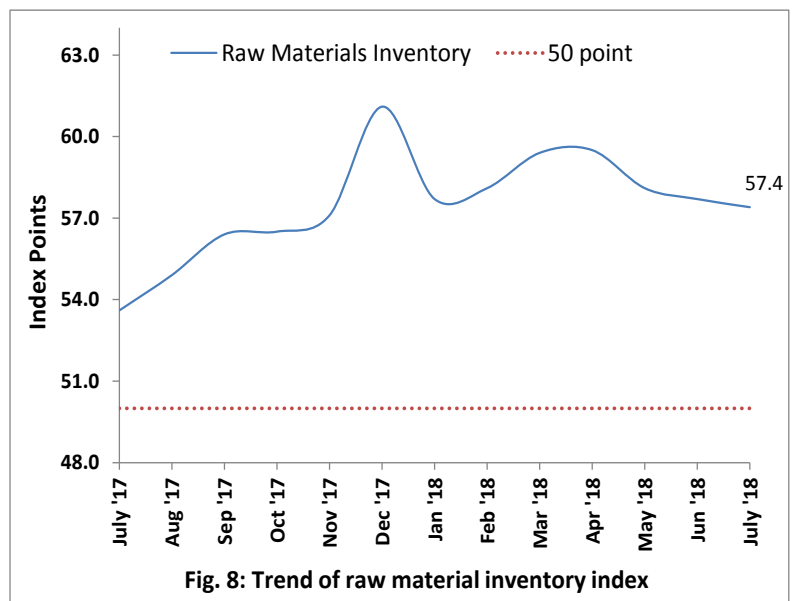
2.4 Employment Level

The employment level index in July 2018 stood at 55.0 points, indicating growth in employment level for the fifteenth consecutive month. Of the 14 subsectors, 9 reported increased employment level, 3 remained unchanged while 2 reported reduced employment level in the review month (Fig. 7 and Table 5).



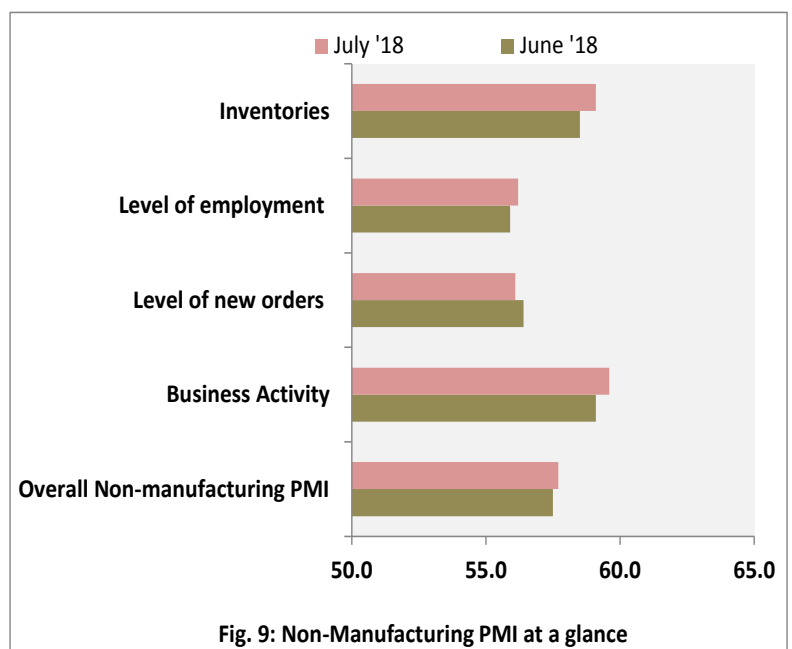
2.5 Raw material Inventories

The Manufacturing sector inventories index grew for the sixteenth consecutive month in July 2018. At 57.4 points, the index grew at a slower rate when compared to its level in the previous month. Twelve of the 14 subsectors recorded growth, while 2 recorded decline in raw material inventories (Fig. 8 and Table 6).



3.0 Non-Manufacturing PMI Report

Business activity, employment level and inventories grew at a faster rate; while new orders grew at a slower rate in July 2018



The *composite PMI* for the *non-manufacturing* sector stood at 57.7 points in July 2018, indicating expansion in the Non-manufacturing PMI for the fifteenth consecutive month. The index grew at a faster rate when compared to that in June 2018. Sixteen of the 17 subsectors recorded growth in the following order: information & communication; finance & insurance; water supply, sewage & waste management; wholesale/retail trade; health care & social assistance;

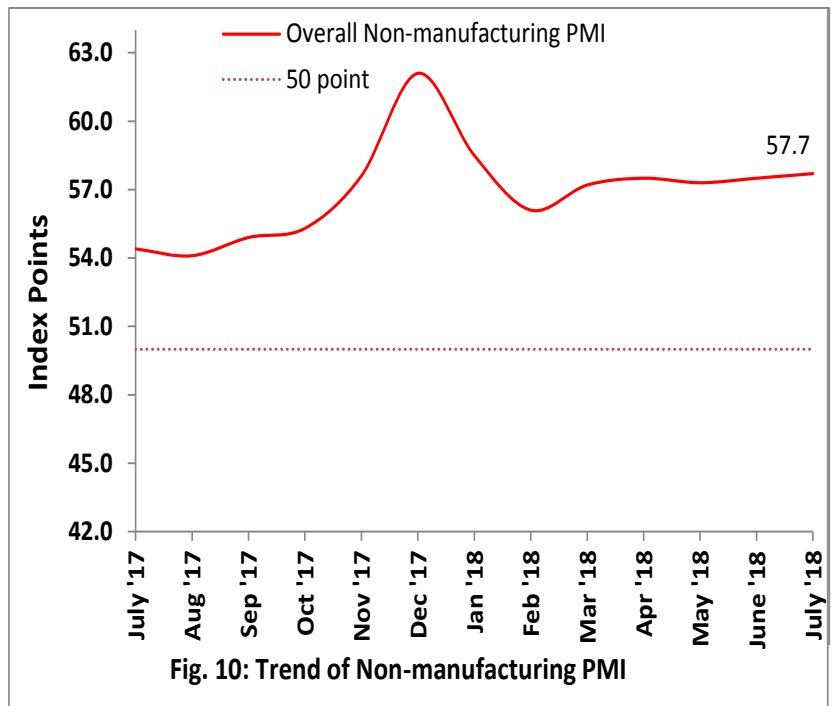


Fig. 10: Trend of Non-manufacturing PMI

educational services; agriculture; real estate rental & leasing; arts, entertainment & recreation; professional, scientific, & technical services; transportation & warehousing; accommodation & food services; repair, maintenance/washing of motor vehicles; utilities; electricity, gas, steam & air conditioning supply; and construction. The management of companies subsector recorded contraction in the review period (Fig. 10 and Table 7).

3.1 Business Activity

At 59.6 points, the business activity index grew for the sixteenth consecutive month, indicating expansion in non-manufacturing business activity in July 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).

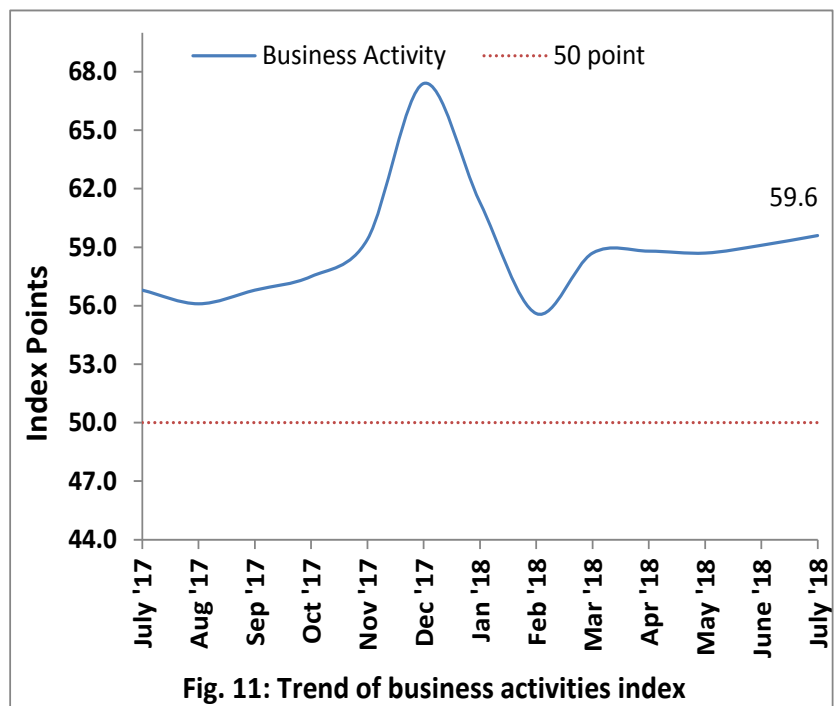


Fig. 11: Trend of business activities index

3.2 New Orders

At 56.1 points, new orders index grew for the sixteenth consecutive month in July 2018. Of the 17 subsectors, 12 reported growth, while 5 recorded a decline (Fig 12 Table 9).

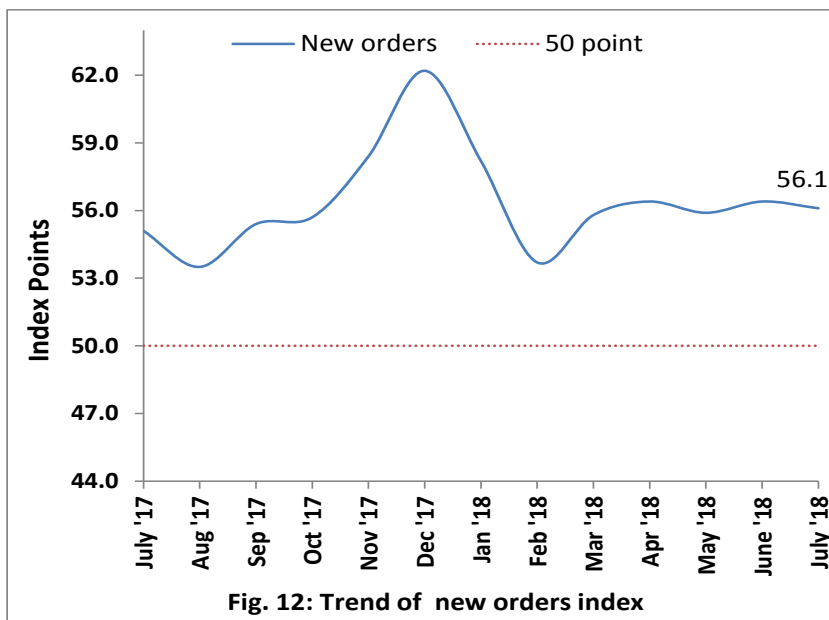


Fig. 12: Trend of new orders index

3.3 Employment Level

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

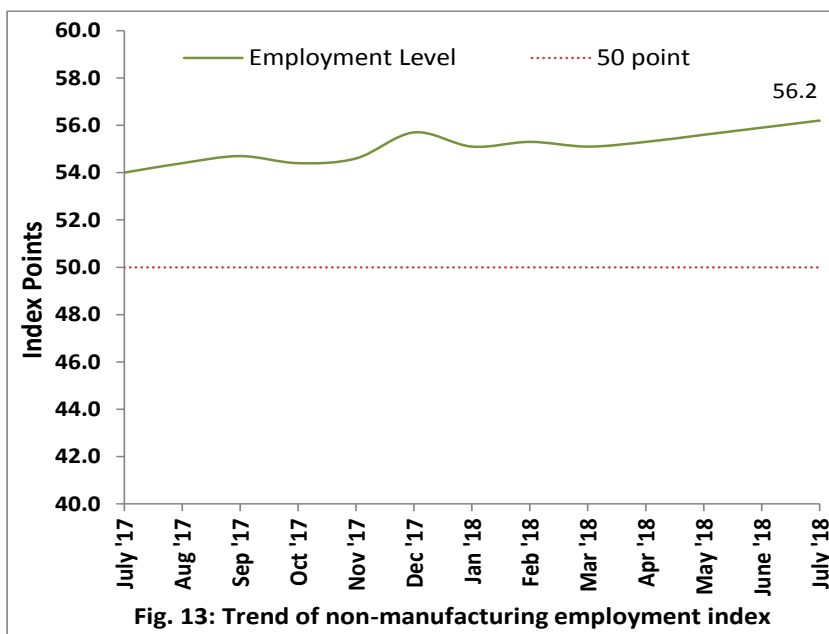


Fig. 13: Trend of non-manufacturing employment index

3.4 Non-manufacturing Inventory

At 59.1 points, non-manufacturing inventory index grew for the fifteenth consecutive month, indicating growth in inventories in the review period. Fifteen subsectors recorded higher inventories, 1 remained unchanged, while 1 subsector recorded lower

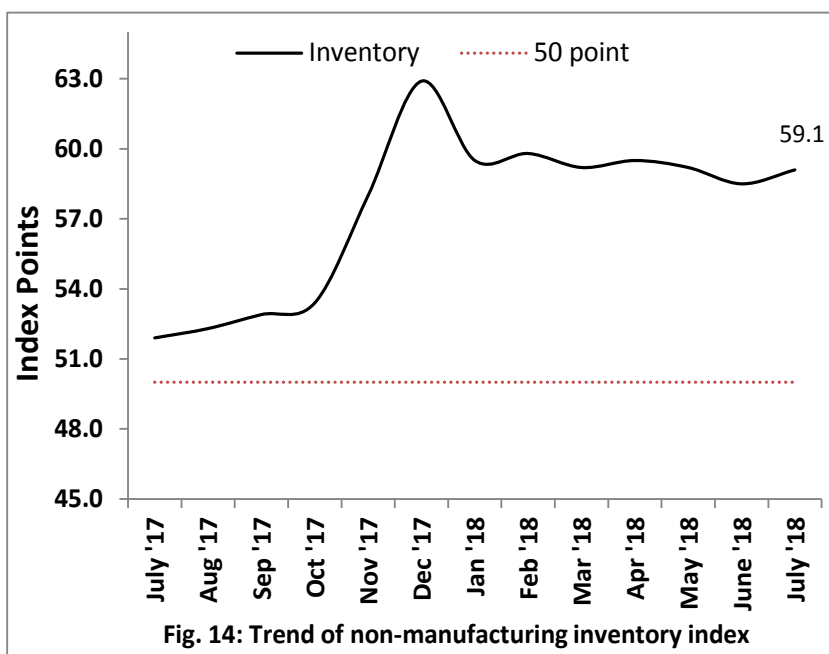


Fig. 14: Trend of non-manufacturing inventory index

inventory in July 2018 (Fig 14 Table 11).

APPENDICES

Table 1: Manufacturing at a Glance

Index	Series Index* June	Series Index* July	Difference	Direction	Rate of Change	Trend** (Months)
Composite PMI \1	57.0	56.8	-0.2	Growing	Slower	16
Production level	59.2	59.0	-0.2	Growing	Slower	17
New orders	56.2	55.8	-0.4	Growing	Slower	16
Supplier delivery time	56.5	56.8	0.3	Growing	Faster	14
Employment level	55.4	55.0	-0.4	Growing	Slower	15
Raw materials/WIP Inventory	57.7	57.4	-0.3	Growing	Slower	16
New Export Orders	37.6	39.4	1.8	Declining	Slower	41
Output Prices	53.8	52.3	-1.5	Growing	Slower	31
Input Prices	61.9	60.7	-1.2	Growing	Slower	49
Quantity of Purchases	47.6	51.1	3.5	Growing	From Contraction	1
Outstanding Business/Backlog of Work	38.0	40.7	2.7	Declining	Slower	8
Stock of Finished Goods	51.1	51.3	0.2	Growing	Faster	4
Manufacturing Sub-Sectors						
Cement	48.3	55.0	6.7	Growing	From Contraction	1
Chemical & pharmaceutical products	56.0	56.4	0.4	Growing	Faster	6
Electrical equipment	60.5	60.8	0.3	Growing	Faster	6
Fabricated metal products	45.3	54.4	9.1	Growing	From Contraction	1
Food, beverage & tobacco products	61.0	55.3	-5.7	Growing	Slower	22
Furniture & related products	64.4	59.8	-4.6	Growing	Slower	2
Nonmetallic mineral products	50.3	57.8	7.5	Growing	Faster	2
Paper products	65.4	61.0	-4.4	Growing	Slower	15
Petroleum & coal products	55.0	77.5	22.5	Growing	Faster	9
Plastics & rubber products	61.0	47.8	-13.2	Declining	From Expansion	1
Primary metal	45.4	60.4	15.0	Growing	From Contraction	1
Printing & related support activities	61.2	65.4	4.2	Growing	Faster	4
Textile, apparel, leather & footwear	58.7	57.3	-1.4	Growing	Slower	17
Transportation equipment	27.5	57.5	30.0	Growing	From Contraction	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 June	Series Index July	Difference	Direction	Rate of Change	Trend (Months)
PRODUCTION PMI	59.2	59.0	-0.2	Growing	Slower	17
Cement	50.0	50.0	0.0	No Change	Flat	2
Chemical & pharmaceutical products	52.9	59.1	6.2	Growing	Faster	6
Electrical equipment	80.0	66.7	-13.3	Growing	Slower	6
Fabricated metal products	26.7	57.1	30.4	Growing	From Contraction	1
Food, beverage & tobacco products	70.6	55.5	-15.1	Growing	Slower	22
Furniture & related products	72.2	64.3	-7.9	Growing	Slower	2
Nonmetallic mineral products	37.5	63.9	26.4	Growing	From Contraction	1
Paper products	64.3	65.0	0.7	Growing	Faster	4
Petroleum & coal products	83.3	83.3	0.0	Growing	Flat	4
Plastics & rubber products	61.5	50.0	-11.5	No Change	From Expansion	1
Primary metal	57.1	65.4	8.3	Growing	Faster	2
Printing & related support activities	59.1	71.1	12.0	Growing	Faster	4
Textile, apparel, leather & footwear	63.3	58.7	-4.6	Growing	Slower	4
Transportation equipment	33.3	62.5	29.2	Growing	From Contraction	1

Table 3: New Orders at a Glance

NEW ORDERS AT A GLANCE

Index	Series Index June	Series Index July	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	56.2	55.8	-0.4	Growing	Slower	16
Cement	50.0	62.5	12.5	Growing	From No Change	1
Chemical & pharmaceutical products	58.8	54.4	-4.4	Growing	Slower	5
Electrical equipment	60.0	58.3	-1.7	Growing	Slower	6
Fabricated metal products	40.0	51.8	11.8	Growing	From Contraction	1
Food, beverage & tobacco products	59.8	55.5	-4.3	Growing	Slower	22
Furniture & related products	61.1	55.4	-5.7	Growing	Slower	2
Nonmetallic mineral products	50.0	47.2	-2.8	Declining	From No Change	1
Paper products	78.6	60.0	-18.6	Growing	Slower	3
Petroleum & coal products	33.3	83.3	50.0	Growing	From Contraction	1
Plastics & rubber products	69.2	44.4	-24.8	Declining	From Expansion	1
Primary metal	28.6	61.5	32.9	Growing	From Contraction	1
Printing & related support activities	63.6	71.1	7.5	Growing	Faster	3
Textile, apparel, leather & footwear	56.7	60.9	4.2	Growing	Faster	2
Transportation equipment	0.0	62.5	62.5	Growing	From Contraction	1

Table 4: Supplier Delivery Time at a Glance

Index	Series Index June	Series Index July	Difference	Direction	Rate of Change	Trend (Months)
SUPPLIER DELIVERY TIME PMI	56.5	56.8	0.3	Growing	Faster	14
Cement	50.0	50.0	0.0	No Change	Flat	2
Chemical & pharmaceutical products	50.0	57.8	7.8	Growing	From No Change	1
Electrical equipment	50.0	50.0	0.0	No Change	Flat	4
Fabricated metal products	73.3	58.9	-14.4	Growing	Slower	5
Food, beverage & tobacco products	50.0	58.2	8.2	Growing	From No Change	1
Furniture & related products	61.1	50.0	-11.1	No Change	From Expansion	1
Nonmetallic mineral products	68.8	58.3	-10.5	Growing	Slower	3
Paper products	57.1	75.0	17.9	Growing	Faster	2
Petroleum & coal products	50.0	33.3	-16.7	Declining	From No Change	1
Plastics & rubber products	57.7	55.6	-2.1	Growing	Slower	2
Primary metal	64.3	57.7	-6.6	Growing	Slower	4
Printing & related support activities	63.6	47.2	-16.4	Declining	From Expansion	1
Textile, apparel, leather & footwear	63.3	56.5	-6.8	Growing	Slower	11
Transportation equipment	50.0	87.5	37.5	Growing	From No Change	1

Table 5: Employment Level at a Glance

Index	Series Index June	Series Index July	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	55.4	55.0	-0.4	Growing	Slower	15
Cement	33.3	50.0	16.7	No Change	From Contraction	1
Chemical & pharmaceutical products	58.8	54.4	-4.4	Growing	Slower	6
Electrical equipment	40.0	58.3	18.3	Growing	From Contraction	1
Fabricated metal products	53.3	51.8	-1.5	Growing	Slower	2
Food, beverage & tobacco products	59.8	52.7	-7.1	Growing	Slower	3
Furniture & related products	61.1	66.1	5.0	Growing	Faster	3
Nonmetallic mineral products	50.0	63.9	13.9	Growing	From No Change	1
Paper products	50.0	50.0	0.0	No Change	Flat	2
Petroleum & coal products	50.0	83.3	33.3	Growing	From No Change	1
Plastics & rubber products	53.8	44.4	-9.4	Declining	From Expansion	1
Primary metal	50.0	53.8	3.8	Growing	From No Change	1
Printing & related support activities	59.1	63.2	4.1	Growing	Faster	2
Textile, apparel, leather & footwear	53.3	50.0	-3.3	No Change	From Expansion	1
Transportation equipment	33.3	37.5	4.2	Declining	Slower	2

Table 6: Raw Materials Inventory at a Glance

Index	Series Index June	Series Index July	Difference	Direction	Rate of Change	Trend (Months)
RAW MATERIALS INVENTORY PMI	57.7	57.4	-0.3	Growing	Slower	16
Cement	66.7	62.5	-4.2	Growing	Slower	3
Chemical & pharmaceutical products	58.8	57.8	-1.0	Growing	Slower	2
Electrical equipment	70.0	75.0	5.0	Growing	Faster	8
Fabricated metal products	50.0	53.6	3.6	Growing	From No Change	1
Food, beverage & tobacco products	59.2	54.4	-4.8	Growing	Slower	22
Furniture & related products	66.7	64.3	-2.4	Growing	Slower	5
Nonmetallic mineral products	56.3	61.1	4.8	Growing	Faster	2
Paper products	71.4	55.0	-16.4	Growing	Slower	4
Petroleum & coal products	66.7	100.0	33.3	Growing	Faster	6
Plastics & rubber products	53.8	47.2	-6.6	Declining	From Expansion	1
Primary metal	28.6	61.5	32.9	Growing	From Contraction	1
Printing & related support activities	60.0	65.8	5.8	Growing	Faster	2
Textile, apparel, leather & footwear	56.7	58.7	2.0	Growing	Faster	10
Transportation equipment	50.0	25.0	-25.0	Declining	From No Change	1

Table 7: Non-Manufacturing at a Glance

Index	Series Index June	Series Index July	Difference	Direction	Rate of Change	Trend (Months)
Composite PMI \1	57.5	57.7	0.2	Growing	Faster	15
Business Activity	59.1	59.6	0.5	Growing	Faster	16
Level of new orders/customers/incoming business	56.4	56.1	-0.3	Growing	Slower	16
Level of employment	55.9	56.2	0.3	Growing	Faster	15
Inventory	58.5	59.1	0.6	Growing	Faster	15
Average price of Inputs (volume weighted)	52.2	52.1	-0.1	Growing	Slower	33
Level of outstanding business/ Backlog of work	44.0	43.1	-0.9	Declining	Faster	49
New Exports orders	33.2	42.1	8.9	Declining	Slower	49
Imports	40.1	40.5	0.4	Declining	Slower	49
Inventory (sentiments)	42.4	45.0	2.6	Declining	Slower	49
Non-manufacturing sub-sectors						
Accommodation & food services	43.9	54.7	10.8	Growing	From Contraction	1
Agriculture	69.2	57.7	-11.5	Growing	Slower	26
Arts, Entertainment & Recreation	50.0	56.6	6.6	Growing	From No Change	1
Construction	54.6	51.3	-3.3	Growing	Slower	2
Educational services	45.5	57.9	12.4	Growing	From Contraction	1
Electricity, gas, steam & air conditioning supply	55.1	52.3	-2.8	Growing	Slower	3
Finance & insurance	64.3	61.0	-3.3	Growing	Slower	17
Health care & social assistance	61.8	58.2	-3.6	Growing	Slower	15
Information & communication	68.2	68.3	0.1	Growing	Faster	16
Management of companies	51.9	47.8	-4.1	Declining	From Expansion	1
Professional, scientific, & technical services	64.5	56.5	-8.0	Growing	Slower	8
Real estate rental & leasing	61.3	57.7	-3.6	Growing	Slower	5
Repair, Maintenance/Washing Of Motor Vehicles...	87.5	52.5	-35.0	Growing	Slower	2
Transportation & warehousing	50.8	56.5	5.7	Growing	Faster	3
Utilities	62.5	52.5	-10.0	Growing	Slower	16
Water supply, sewage & waste management	62.5	60.6	-1.9	Growing	Slower	5
Wholesale/Retail trade	54.8	59.1	4.3	Growing	Faster	14

\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 June	Series Index July	Difference	Direction	Rate of Change	Trend (Months)
BUSINESS ACTIVITY PMI	59.1	59.6	0.5	Growing	Faster	16
Accommodation & food services	41.9	56.3	14.4	Growing	From Contraction	1
Agriculture	77.5	58.7	-18.8	Growing	Slower	26
Arts, Entertainment & Recreation	50.0	60.7	10.7	Growing	From No Change	1
Construction	63.3	53.8	-9.5	Growing	Slower	4
Educational services	59.1	59.3	0.2	Growing	Faster	11
Electricity, gas, steam & air conditioning supply	55.9	55.6	-0.3	Growing	Slower	5
Finance & insurance	63.1	63.6	0.5	Growing	Faster	16
Health care & social assistance	56.9	54.4	-2.5	Growing	Slower	4
Information & communication	68.4	69.6	1.2	Growing	Faster	16
Management of companies	61.5	47.1	-14.4	Declining	From Expansion	1
Professional, scientific, & technical services	76.3	58.6	-17.7	Growing	Slower	5
Real estate rental & leasing	70.0	67.9	-2.1	Growing	Slower	3
Repair, Maintenance/Washing Of Motor Vehicles.	100.0	45.0	-55.0	Declining	From Expansion	1
Transportation & warehousing	40.6	56.0	15.4	Growing	From Contraction	1
Utilities	50.0	55.0	5.0	Growing	From No Change	1
Water supply, sewage & waste management	60.0	62.5	2.5	Growing	Faster	3
Wholesale/Retail trade	50.0	60.0	10.0	Growing	From No Change	1

Table 9: New Orders at a Glance

Index	Series Index June	Series Index July	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	56.4	56.1	-0.3	Growing	Slower	16
Accommodation & food services	37.8	55.1	17.3	Growing	From Contraction	1
Agriculture	65.0	65.2	0.2	Growing	Faster	3
Arts, Entertainment & Recreation	48.3	48.8	0.5	Declining	Slower	2
Construction	51.7	43.6	-8.1	Declining	From Expansion	1
Educational services	45.5	53.7	8.2	Growing	From Contraction	1
Electricity, gas, steam & air conditioning supply	52.9	46.3	-6.6	Declining	From Expansion	1
Finance & insurance	69.0	56.6	-12.4	Growing	Slower	17
Health care & social assistance	58.6	59.8	1.2	Growing	Faster	4
Information & communication	71.1	74.0	2.9	Growing	Faster	16
Management of companies	46.2	41.2	-5.0	Declining	Faster	2
Professional, scientific, & technical services	55.3	55.2	-0.1	Growing	Slower	5
Real estate rental & leasing	55.0	51.2	-3.8	Growing	Slower	3
Repair, Maintenance/Washing Of Motor Vehicles..	100.0	45.0	-55.0	Declining	From Expansion	1
Transportation & warehousing	56.3	56.0	-0.3	Growing	Slower	2
Utilities	50.0	65.0	15.0	Growing	From No Change	1
Water supply, sewage & waste management	70.0	63.3	-6.7	Growing	Slower	2
Wholesale/Retail trade	59.6	57.9	-1.7	Growing	Slower	14

Table 10: Employment at a Glance

Index	Series Index June	Series Index July	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	55.9	56.2	0.3	Growing	Faster	15
Accommodation & food services	48.6	50.6	2.0	Growing	From Contraction	1
Agriculture	65.0	54.3	-10.7	Growing	Slower	15
Arts, Entertainment & Recreation	48.3	61.9	13.6	Growing	From Contraction	1
Construction	56.7	52.6	-4.1	Growing	Slower	4
Educational services	40.9	57.4	16.5	Growing	From Contraction	1
Electricity, gas, steam & air conditioning supply	55.9	53.7	-2.2	Growing	Slower	3
Finance & insurance	59.5	57.6	-1.9	Growing	Slower	14
Health care & social assistance	61.7	57.8	-3.9	Growing	Slower	14
Information & communication	65.8	58.8	-7.0	Growing	Slower	5
Management of companies	38.5	52.9	14.4	Growing	From Contraction	1
Professional, scientific, & technical services	55.3	51.7	-3.6	Growing	Slower	3
Real estate rental & leasing	57.5	51.2	-6.3	Growing	Slower	2
Repair, Maintenance/Washing Of Motor Vehicles..	100.0	65.0	-35.0	Growing	Slower	9
Transportation & warehousing	53.1	62.0	8.9	Growing	Faster	4
Utilities	83.3	50.0	-33.3	No Change	From Expansion	1
Water supply, sewage & waste management	50.0	63.3	13.3	Growing	From No Change	1
Wholesale/Retail trade	57.7	58.6	0.9	Growing	Faster	2

Table 11: Inventory at a Glance

Index	Series Index June	Series Index July	Difference	Direction	Rate of Change	Trend (Months)
INVENTORY PMI	58.5	59.1	0.6	Growing	Faster	15
Accommodation & food services	47.2	56.9	9.7	Growing	From Contraction	1
Agriculture	69.4	52.5	-16.9	Growing	Slower	9
Arts, Entertainment & Recreation	53.4	54.9	1.5	Growing	Faster	10
Construction	46.7	55.1	8.4	Growing	From Contraction	1
Educational services	36.4	61.1	24.7	Growing	From Contraction	1
Electricity, gas, steam & air conditioning supply	55.9	53.7	-2.2	Growing	Slower	6
Finance & insurance	65.7	66.2	0.5	Growing	Faster	6
Health care & social assistance	70.0	60.9	-9.1	Growing	Slower	15
Information & communication	67.6	70.6	3.0	Growing	Faster	3
Management of companies	61.5	50.0	-11.5	No Change	From Expansion	1
Professional, scientific, & technical services	71.1	60.3	-10.8	Growing	Slower	8
Real estate rental & leasing	62.5	60.7	-1.8	Growing	Slower	5
Repair, Maintenance/Washing Of Motor Vehicles	50.0	55.0	5.0	Growing	From No Change	1
Transportation & warehousing	53.1	52.0	-1.1	Growing	Slower	2
Utilities	66.7	40.0	-26.7	Declining	From Expansion	1
Water supply, sewage & waste management	70.0	53.1	-16.9	Growing	Slower	8
Wholesale/Retail trade	51.9	60.1	8.2	Growing	Faster	12

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

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