

Central Bank of Nigeria



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

Statistics Department

November 2019

PURCHASING MANAGERS' INDEX (PMI) NOVEMBER 2019 REPORT

1.0 Introduction

The November 2019 PMI survey was conducted by the Statistics Department of the Central Bank of Nigeria during the period November 12-18, 2019. The respondents were purchasing and supply executives of manufacturing and non-manufacturing organizations in all 36 states in Nigeria and the Federal Capital Territory (FCT). The Bank makes no representation regarding the individual companies, other than the information they have provided. The data contained herein further provides input for policy decisions.

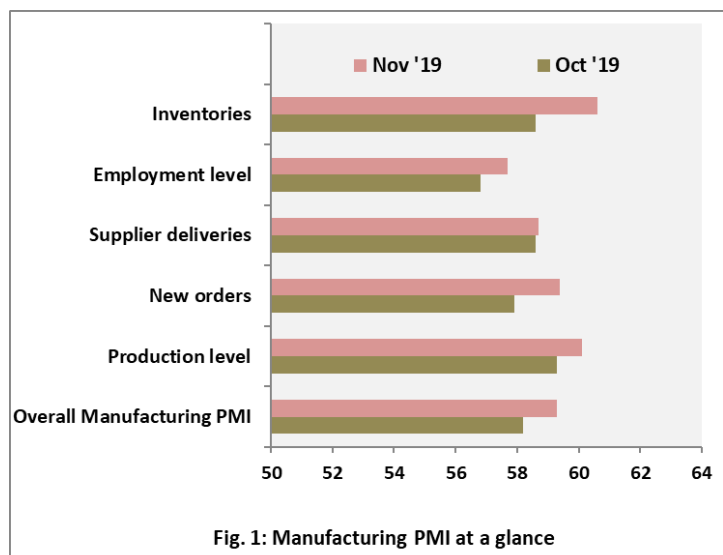
1.1 Data and Method of Presentation

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

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

2.0 Manufacturing PMI Report

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



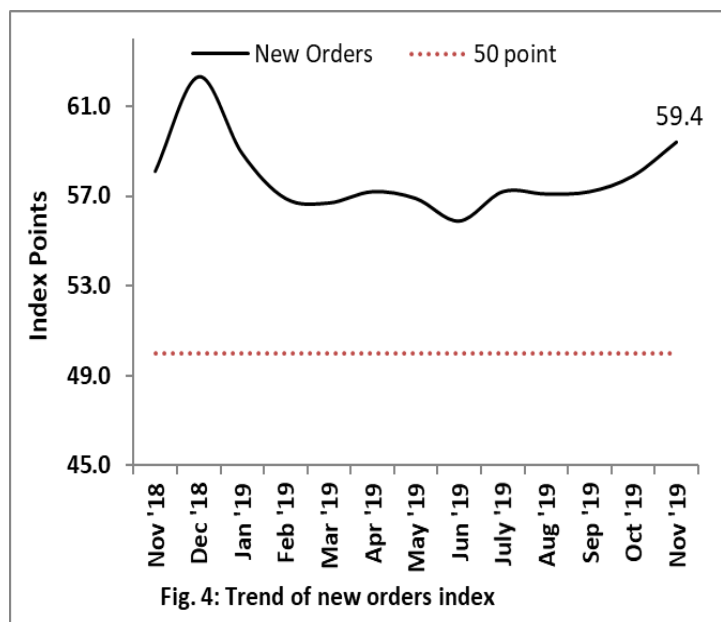
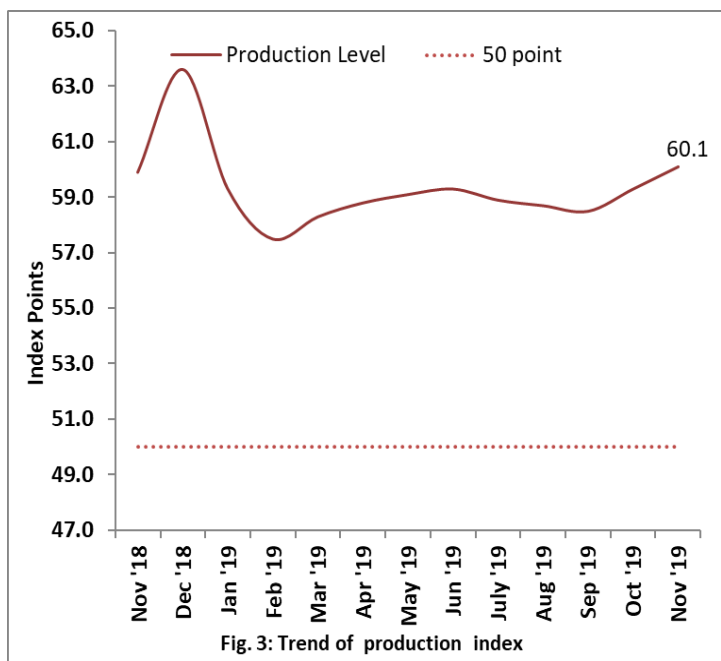
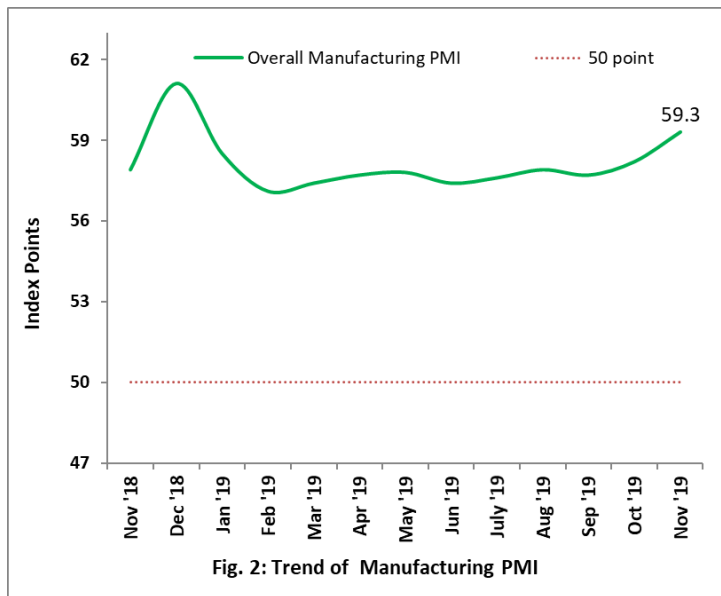
The *Manufacturing PMI* in the month of November stood at 59.3 index points, indicating expansion in the manufacturing sector for the thirty-second consecutive month (Fig. 2 and Table 1). The index grew at a faster rate when compared to the index in October. Thirteen of the 14 surveyed subsectors reported growth in the review month in the following order: transportation equipment; petroleum & coal products; furniture & related products; electrical equipment; plastics & rubber products; food, beverage & tobacco products; nonmetallic mineral products; printing & related support activities; cement; fabricated metal products; primary metal; chemical & pharmaceutical products; and textile, apparel, leather & footwear. The paper products subsector recorded decline in the review period (Fig. 2 and Table 1).

2.1 Production Level

At 60.1 points, the production level index for manufacturing sector grew for the thirty-third consecutive month in November 2019. The index indicated a faster growth in the current month, when compared to its level in October 2019. Eleven of the 14 manufacturing subsectors recorded increased production level, while 3 recorded decline (Fig. 3 and Table 2).

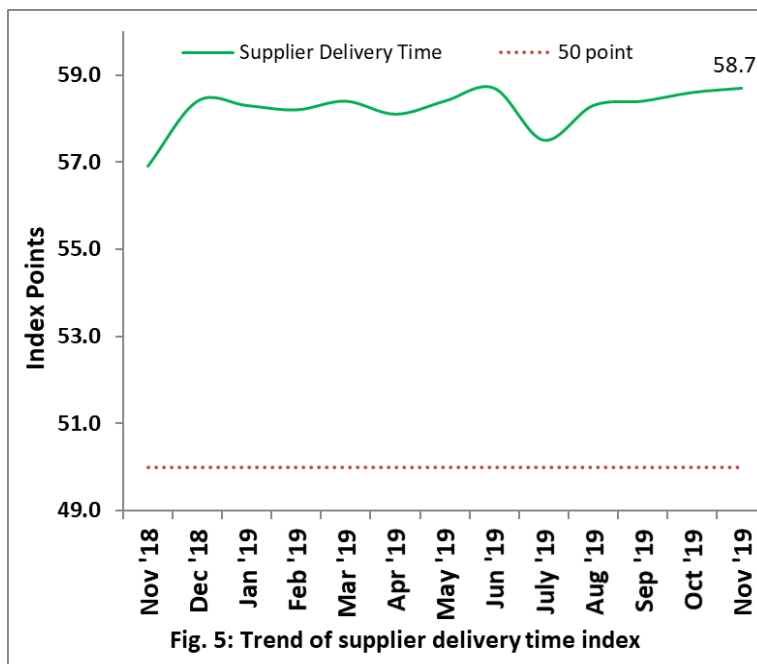
2.2 New Orders

At 59.4 points, the new orders index grew for the thirty-second consecutive month, indicating increase in new orders in November 2019. The index grew at a faster rate, when compared to its level in October 2019. Ten subsectors reported growth, while 4 remained unchanged in the review month (Fig. 4 and Table 3).



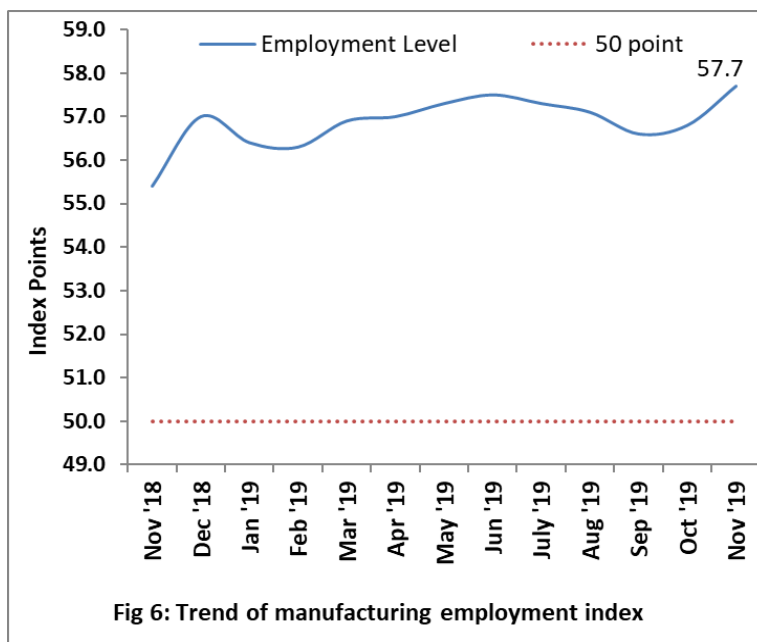
2.3 Supplier Delivery Time

The manufacturing supplier delivery time index stood at 58.7 points in November 2019, indicating faster supplier delivery time. The index has recorded growth for thirty consecutive months. Twelve of the 14 subsectors recorded improved suppliers' delivery time, while 2 declined in the review period (Fig. 5 and Table 4).



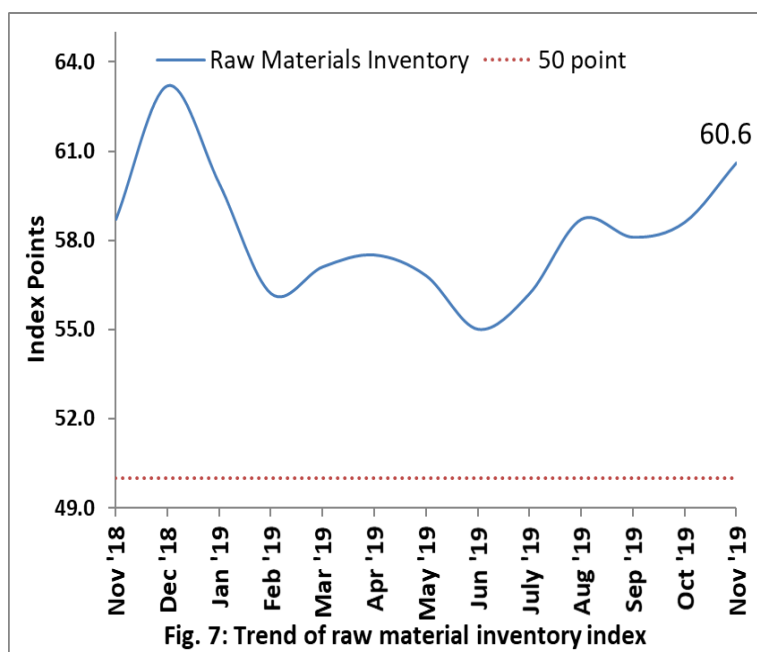
2.4 Employment Level

The employment level index for November 2019 stood at 57.7 points, indicating growth in employment level for the thirty-first consecutive month. Of the 14 subsectors, 10 reported increased employment level, 1 reported unchanged employment level while 3 reported decreased employment in the review month (Fig. 6 and Table 5).



2.5 Raw material Inventories

The Manufacturing sector inventories index grew for the thirty-second consecutive month in November 2019. At 60.6 points, the index grew at a faster rate when compared to its level in October 2019. Twelve of the 14 subsectors recorded growth, while 2 reported declined raw material inventories in the review month (Fig. 7 and Table 6).



3.0 Non-Manufacturing PMI Report

Business activity, new orders, employment level and inventories grew at a faster rate in November 2019

The *composite PMI* for the *non-manufacturing* sector stood at 60.1 points in November 2019, indicating expansion in Non-manufacturing PMI for the thirty-first consecutive month. The index grew at a faster rate when compared to its level in October 2019. All 17 surveyed subsectors recorded growth in the following order: repair, maintenance/washing of motor vehicles; finance & insurance; management of companies; wholesale/retail trade; real estate rental & leasing; educational services; health care & social assistance; construction; transportation & warehousing; accommodation & food services; utilities; agriculture; arts, entertainment & recreation; water supply, sewage & waste management; professional, scientific, & technical services; information & communication; and electricity, gas, steam & air conditioning supply (Fig. 9 and Table 7).

3.1 Business Activity

At 60.0 points, the business activity index grew for the thirty-second consecutive month, indicating expansion in non-manufacturing business activity in November 2019. Fourteen subsectors recorded growth in business activity, 2 remained unchanged, while 1 declined in the review month (Fig 10 Table 8).

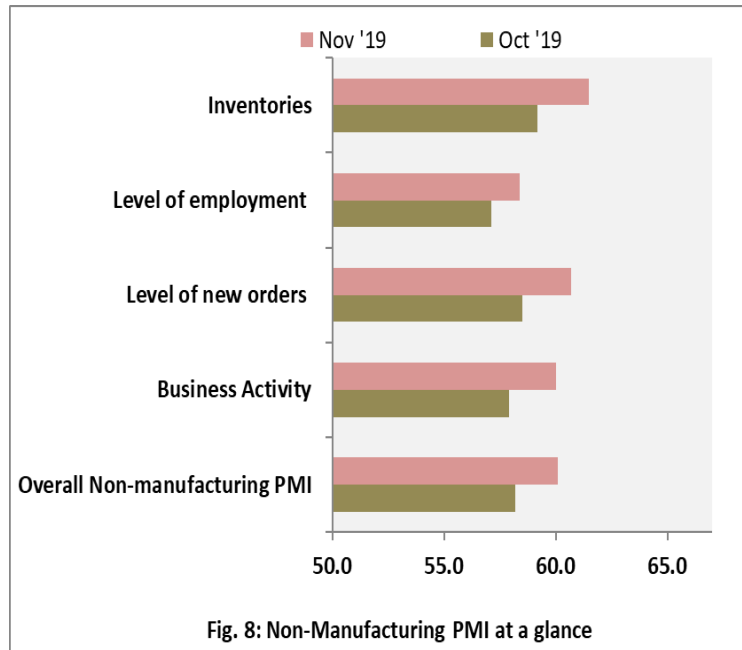


Fig. 8: Non-Manufacturing PMI at a glance

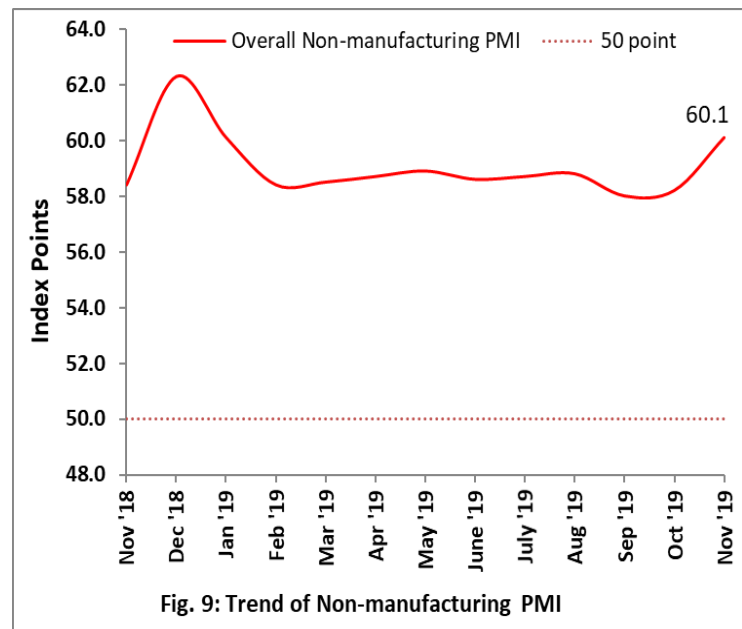


Fig. 9: Trend of Non-manufacturing PMI

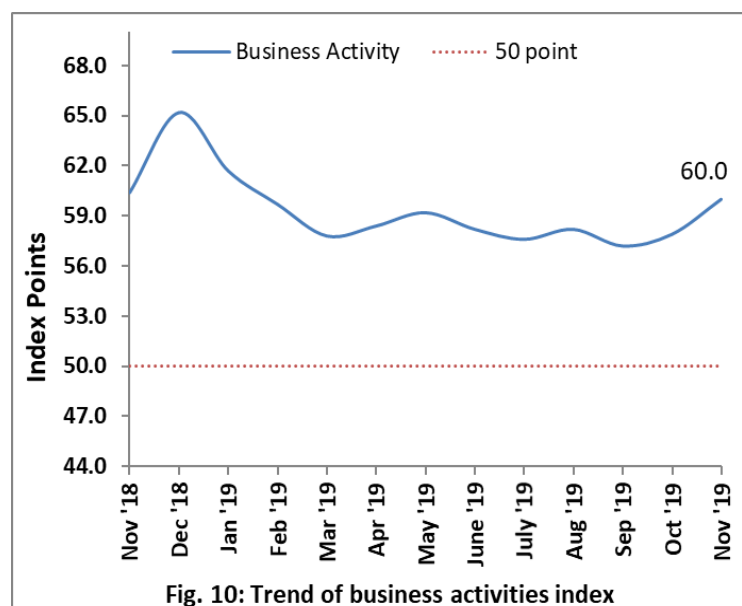
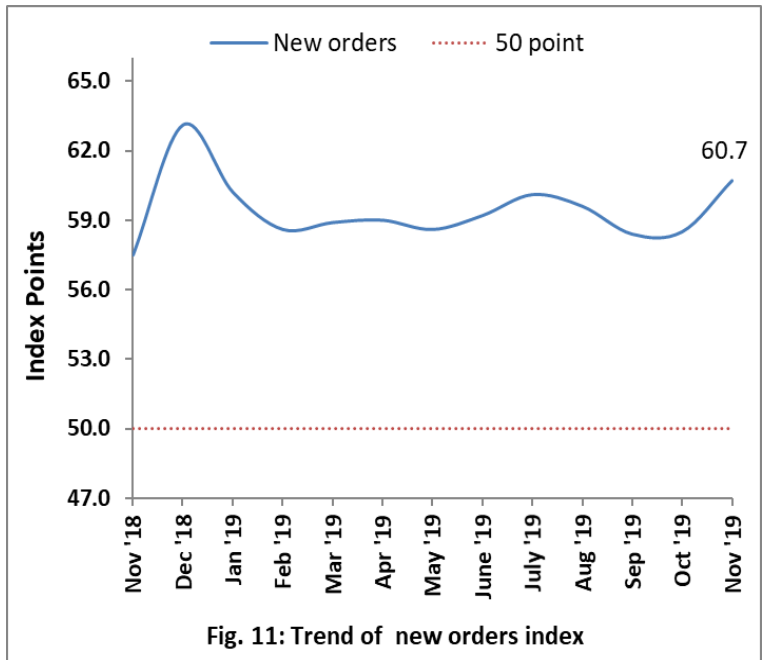


Fig. 10: Trend of business activities index

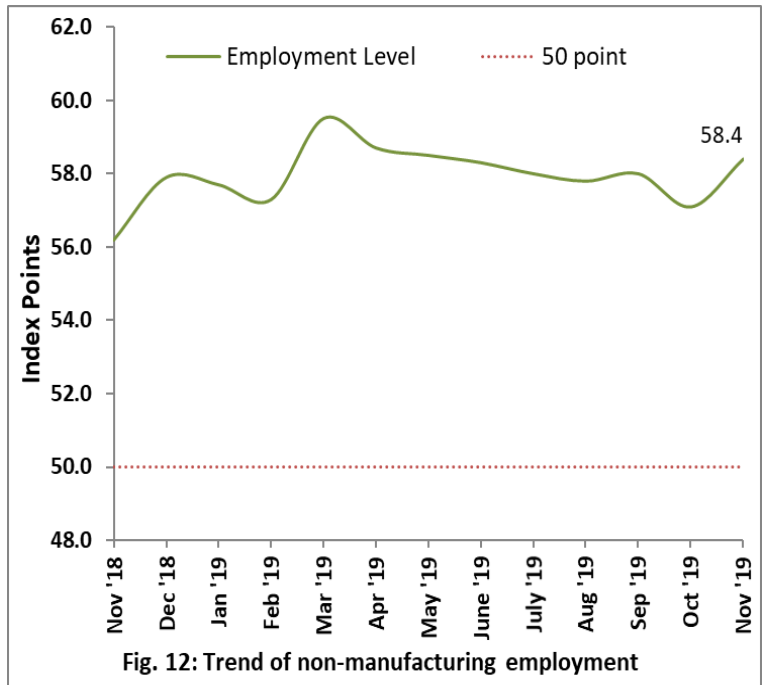
3.2 New Orders

At 60.7 points, new orders index grew for the thirty-second consecutive month in November 2019. Twelve of the 17 surveyed subsectors recorded growth in new orders, 4 remained unchanged, while 1 recorded decline during the review period (Fig 11 Table 9).



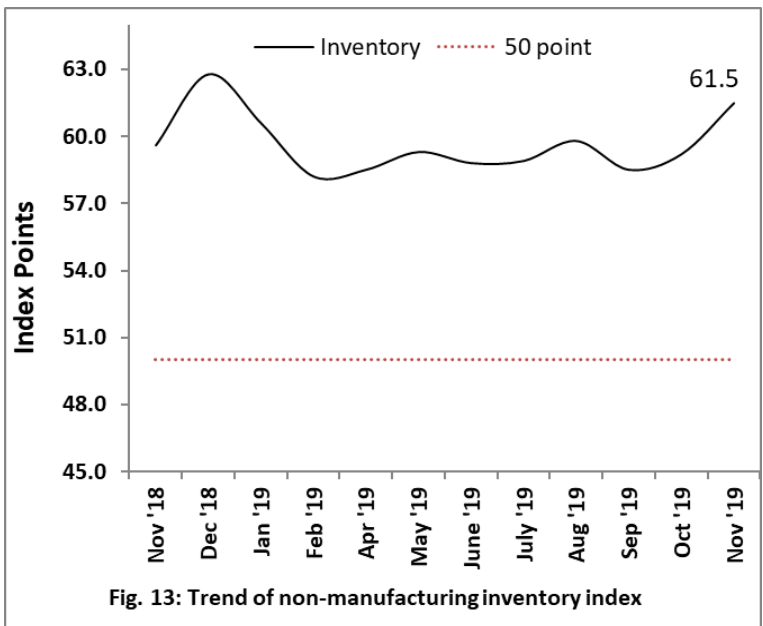
3.3 Employment Level

The employment level Index for the non-manufacturing sector stood at 58.4 points, indicating growth in employment for the thirty-first consecutive month. Fourteen subsectors recorded growth in employment level, 2 remained unchanged, while 1 subsector declined in the review period (Fig 12 Table 10).



3.4 Non-manufacturing Inventory

At 61.5 points, non-manufacturing inventory index grew for the thirty-first consecutive month, indicating growth in inventories in the review period. Of the 17 surveyed subsectors, 15 recorded higher inventories, 1 remained unchanged, while 1 recorded declining inventories in November 2019 (Fig 13, Table 11).



APPENDICES

Table 1: Details of Overall Manufacturing PMI

Index	Oct 2019 Index*	Nov 2019 Index*	Difference	Direction	Rate of Change	Trend** (Months)
Composite PMI \1	58.2	59.3	1.1	Growing	Faster	32
Production level	59.3	60.1	0.8	Growing	Faster	33
New orders	57.9	59.4	1.5	Growing	Faster	32
Supplier delivery time	58.6	58.7	0.1	Growing	Faster	30
Employment level	56.8	57.7	0.9	Growing	Faster	31
Raw materials/WIP Inventory	58.6	60.6	2.0	Growing	Faster	32
New Export Orders	40.0	41.0	1.0	Declining	Slower	57
Output Prices	52.5	53.1	0.6	Growing	Faster	47
Input Prices	58.4	59.3	0.9	Growing	Faster	65
Quantity of Purchases	53.7	55.8	2.1	Growing	Faster	14
Outstanding Business/Backlog of Work	42.5	41.4	-1.1	Declining	Faster	24
Stock of Finished Goods	53.1	53.1	0.0	Growing	Flat	20
Manufacturing Sub-Sectors						
Cement	68.0	58.5	70.0	Growing	Faster	14
Chemical & pharmaceutical products	51.8	53.6	57.5	Growing	Faster	22
Electrical equipment	66.5	65.5	49.5	Growing	Faster	22
Fabricated metal products	62.7	57.4	52.2	Growing	Faster	17
Food, beverage & tobacco products	57.3	61.1	59.3	Growing	Faster	38
Furniture & related products	66.3	67.5	61.6	Growing	Faster	18
Nonmetallic mineral products	53.6	60.5	59.0	Growing	Faster	5
Paper products	49.2	47.5	59.2	Declining	Slower	4
Petroleum & coal products	72.5	69.4	61.3	Growing	Faster	8
Plastics & rubber products	53.0	62.4	57.6	Growing	Faster	16
Primary metal	51.9	56.0	48.2	Growing	Faster	5
Printing & related support activities	61.8	60.1	61.7	Growing	Faster	20
Textile, apparel, leather & footwear	60.6	50.3	53.9	Growing	Faster	4
Transportation equipment	51.3	75.0	49.4	Growing	Faster	15

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

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

** Number of month moving in current direction

Table 2: Details of Production PMI

Index	Oct 2019 Index	Nov 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
PRODUCTION PMI	59.3	60.1	0.8	Growing	Faster	33
Cement	70.0	60.0	-10.0	Growing	Slower	9
Chemical & pharmaceutical products	45.7	52.7	7.0	Growing	From Contraction	1
Electrical equipment	80.0	100.0	20.0	Growing	Faster	2
Fabricated metal products	72.2	62.5	-9.7	Growing	Slower	9
Food, beverage & tobacco products	55.4	64.4	9.0	Growing	Faster	38
Furniture & related products	70.3	63.0	-7.3	Growing	Slower	18
Nonmetallic mineral products	52.6	58.3	5.7	Growing	Faster	5
Paper products	44.4	44.4	0.0	Declining	Flat	2
Petroleum & coal products	100.0	75.0	-25.0	Growing	Slower	8
Plastics & rubber products	52.0	60.5	8.5	Growing	Faster	3
Primary metal	45.8	45.0	-0.8	Declining	Faster	5
Printing & related support activities	68.5	60.0	-8.5	Growing	Slower	6
Textile, apparel, leather & footwear	66.7	43.1	-23.6	Declining	From Expansion	1
Transportation equipment	75.0	100.0	25.0	Growing	Faster	3

Table 3: Details of New Orders PMI

Index	Oct 2019 Index	Nov 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	57.9	59.4	1.5	Growing	Faster	32
Cement	70.0	50.0	-20.0	No Change	From Expansion	1
Chemical & pharmaceutical products	48.6	51.4	2.8	Growing	From Contraction	1
Electrical equipment	60.0	70.0	10.0	Growing	Faster	2
Fabricated metal products	63.9	52.8	-11.1	Growing	Slower	6
Food, beverage & tobacco products	59.8	63.1	3.3	Growing	Faster	38
Furniture & related products	65.6	66.7	1.1	Growing	Faster	6
Nonmetallic mineral products	55.3	63.9	8.6	Growing	Faster	5
Paper products	38.9	50.0	11.1	No Change	From Contraction	1
Petroleum & coal products	50.0	50.0	0.0	No Change	Flat	2
Plastics & rubber products	52.0	57.9	5.9	Growing	Faster	5
Primary metal	45.8	65.0	19.2	Growing	From Contraction	1
Printing & related support activities	59.6	64.0	4.4	Growing	Faster	6
Textile, apparel, leather & footwear	59.5	50.0	-9.5	No Change	From Expansion	1
Transportation equipment	50.0	83.3	33.3	Growing	From No Change	1

Table 4: Details of Supplier Delivery Time PMI

Index	Oct 2019 Index	Nov 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
SUPPLIER DELIVERY TIME PMI	58.6	58.7	0.1	Growing	Faster	30
Cement	70.0	70.0	0.0	Growing	Flat	2
Chemical & pharmaceutical products	58.3	60.8	2.5	Growing	Faster	5
Electrical equipment	50.0	30.0	-20.0	Declining	From No Change	1
Fabricated metal products	56.9	55.6	-1.3	Growing	Slower	4
Food, beverage & tobacco products	56.3	54.1	-2.2	Growing	Slower	17
Furniture & related products	67.2	72.2	5.0	Growing	Faster	12
Nonmetallic mineral products	65.8	61.8	-4.0	Growing	Slower	19
Paper products	50.0	61.1	11.1	Growing	From No Change	1
Petroleum & coal products	50.0	62.5	12.5	Growing	From No Change	1
Plastics & rubber products	56.0	60.5	4.5	Growing	Faster	3
Primary metal	50.0	65.0	15.0	Growing	From No Change	1
Printing & related support activities	61.5	58.0	-3.5	Growing	Slower	5
Textile, apparel, leather & footwear	64.3	69.0	4.7	Growing	Faster	3
Transportation equipment	50.0	33.3	-16.7	Declining	From No Change	1

Table 5: Details of Employment Level PMI

Index	Oct 2019 Index	Nov 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	56.8	57.7	0.9	Growing	Faster	31
Cement	60.0	60.0	0.0	Growing	Flat	6
Chemical & pharmaceutical products	61.1	51.4	-9.7	Growing	Slower	4
Electrical equipment	60.0	60.0	0.0	Growing	Flat	12
Fabricated metal products	56.9	59.7	2.8	Growing	Faster	2
Food, beverage & tobacco products	56.3	58.1	1.8	Growing	Faster	19
Furniture & related products	64.1	72.2	8.1	Growing	Faster	5
Nonmetallic mineral products	44.7	58.3	13.6	Growing	From Contraction	1
Paper products	66.7	38.9	-27.8	Declining	From Expansion	1
Petroleum & coal products	75.0	87.5	12.5	Growing	Faster	2
Plastics & rubber products	56.0	68.4	12.4	Growing	Faster	3
Primary metal	62.5	45.0	-17.5	Declining	From Expansion	1
Printing & related support activities	53.7	58.0	4.3	Growing	Faster	2
Textile, apparel, leather & footwear	50.0	44.8	-5.2	Declining	From No Change	1
Transportation equipment	25.0	50.0	25.0	No Change	From Contraction	1

Table 6: Details of Raw Materials Inventory PMI

Index	Oct 2019 Index	Nov 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
RAW MATERIALS INVENTORY PMI	58.6	60.6	2.0	Growing	Faster	32
Cement	70.0	60.0	-10.0	Growing	Slower	5
Chemical & pharmaceutical products	48.6	56.8	8.2	Growing	From Contraction	1
Electrical equipment	90.0	30.0	-60.0	Declining	From Expansion	1
Fabricated metal products	55.6	56.9	1.3	Growing	Faster	3
Food, beverage & tobacco products	58.5	64.0	5.5	Growing	Faster	38
Furniture & related products	60.9	64.8	3.9	Growing	Faster	4
Nonmetallic mineral products	50.0	58.3	8.3	Growing	From No Change	1
Paper products	55.6	44.4	-11.2	Declining	From Expansion	1
Petroleum & coal products	100.0	87.5	-12.5	Growing	Slower	6
Plastics & rubber products	48.0	71.1	23.1	Growing	From Contraction	1
Primary metal	66.7	65.0	-1.7	Growing	Slower	3
Printing & related support activities	68.5	56.0	-12.5	Growing	Slower	7
Textile, apparel, leather & footwear	64.3	51.7	-12.6	Growing	Slower	4
Transportation equipment	50.0	100.0	50.0	Growing	From No Change	1

Table 7: Non-Manufacturing at a Glance

Index	Oct 2019 Index	Nov 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
Composite PMI \1	58.2	60.1	1.9	Growing	Faster	31
Business Activity	57.9	60.0	2.1	Growing	Faster	32
Level of new orders/customers/incoming business	58.5	60.7	2.2	Growing	Faster	32
Employment Level	57.1	58.4	1.3	Growing	Faster	31
Inventories	59.2	61.5	2.3	Growing	Faster	31
Average price of Inputs (volume weighted)	52.2	54.6	2.4	Growing	Faster	49
Level of outstanding business/ Backlog of work	42.9	43.6	0.7	Declining	Slower	65
New Exports orders	40.4	41.6	1.2	Declining	Slower	65
Imports	41.7	41.9	0.2	Declining	Slower	65
Inventory (sentiments)	45.1	45.8	0.7	Declining	Slower	65
Non-manufacturing sub-sectors						
Accommodation & food services	59.0	58.9	-0.1	Growing	Slower	17
Agriculture	61.2	57.5	-3.7	Growing	Slower	42
Arts, Entertainment & Recreation	47.9	56.3	8.4	Growing	From Contraction	1
Construction	57.7	60.7	3.0	Growing	Faster	14
Educational services	57.9	61.9	4.0	Growing	Faster	17
Electricity, gas, steam & air conditioning supply	50.9	50.1	-0.8	Growing	Slower	13
Finance & insurance	59.7	62.8	3.1	Growing	Faster	33
Health care & social assistance	51.7	60.9	9.2	Growing	Faster	31
Information & communication	57.6	53.3	-4.3	Growing	Slower	32
Management of companies	45.8	62.5	16.7	Growing	From Contraction	1
Professional, scientific, & technical services	55.2	54.9	-0.3	Growing	Slower	2
Real estate rental & leasing	63.5	62.0	-1.5	Growing	Slower	21
Repair, Maintenance/Washing Of Motor Vehicles...	68.1	66.5	-1.6	Growing	Slower	18
Transportation & warehousing	64.0	60.5	-3.5	Growing	Slower	6
Utilities	61.0	58.9	-2.1	Growing	Slower	3
Water supply, sewage & waste management	53.4	56.3	2.9	Growing	Faster	2
Wholesale/Retail trade	58.9	62.4	3.5	Growing	Faster	30

\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	Oct 2019 Index	Nov 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
BUSINESS ACTIVITY PMI	57.9	60.0	2.1	Growing	Faster	32
Accommodation & food services	59.7	59.7	0.0	Growing	Flat	17
Agriculture	61.8	58.6	-3.2	Growing	Slower	5
Arts, Entertainment & Recreation	58.3	62.5	4.2	Growing	Faster	7
Construction	54.3	60.0	5.7	Growing	Faster	13
Educational services	58.7	63.3	4.6	Growing	Faster	27
Electricity, gas, steam & air conditioning supply	50.0	53.8	3.8	Growing	From No Change	1
Finance & insurance	61.0	64.0	3.0	Growing	Faster	32
Health care & social assistance	50.7	60.4	9.7	Growing	Faster	14
Information & communication	56.1	45.0	-11.1	Declining	From Expansion	1
Management of companies	50.0	66.7	16.7	Growing	From No Change	1
Professional, scientific, & technical services	47.7	52.3	4.6	Growing	From Contraction	1
Real estate rental & leasing	63.2	65.8	2.6	Growing	Faster	2
Repair, Maintenance/Washing Of Motor Vehicles.	66.7	69.2	2.5	Growing	Faster	14
Transportation & warehousing	65.8	60.5	-5.3	Growing	Slower	6
Utilities	64.3	50.0	-14.3	No Change	From Expansion	1
Water supply, sewage & waste management	50.0	50.0	0.0	No Change	Flat	2
Wholesale/Retail trade	58.0	60.4	2.4	Growing	Faster	17

Table 9: New Orders at a Glance

Index	Oct 2019 Index	Nov 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	58.5	60.7	2.2	Growing	Faster	32
Accommodation & food services	60.7	63.4	2.7	Growing	Faster	17
Agriculture	57.4	54.3	-3.1	Growing	Slower	9
Arts, Entertainment & Recreation	66.7	50.0	-16.7	No Change	From Expansion	1
Construction	55.7	58.6	2.9	Growing	Faster	13
Educational services	60.9	62.2	1.3	Growing	Faster	17
Electricity, gas, steam & air conditioning supply	46.7	53.6	6.9	Growing	From Contraction	1
Finance & insurance	58.0	62.9	4.9	Growing	Faster	33
Health care & social assistance	47.0	62.5	15.5	Growing	From Contraction	1
Information & communication	60.6	48.3	-12.3	Declining	From Expansion	1
Management of companies	33.3	50.0	16.7	No Change	From Contraction	1
Professional, scientific, & technical services	59.1	58.7	-0.4	Growing	Slower	2
Real estate rental & leasing	62.8	57.7	-5.1	Growing	Slower	13
Repair, Maintenance/Washing Of Motor Vehicles..	70.8	73.1	2.3	Growing	Faster	14
Transportation & warehousing	68.4	60.5	-7.9	Growing	Slower	8
Utilities	50.0	50.0	0.0	No Change	Flat	3
Water supply, sewage & waste management	63.6	50.0	-13.6	No Change	From Expansion	1
Wholesale/Retail trade	61.2	63.8	2.6	Growing	Faster	30

Table 10: Employment at a Glance

Index	Oct 2019 Index	Nov 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	57.1	58.4	1.3	Growing	Faster	31
Accommodation & food services	57.0	52.2	-4.8	Growing	Slower	15
Agriculture	61.8	55.7	-6.1	Growing	Slower	31
Arts, Entertainment & Recreation	25.0	50.0	25.0	No Change	From Contraction	1
Construction	55.7	58.6	2.9	Growing	Faster	14
Educational services	55.4	58.9	3.5	Growing	Faster	17
Electricity, gas, steam & air conditioning supply	53.3	50.0	-3.3	No Change	From Expansion	1
Finance & insurance	62.5	64.0	1.5	Growing	Faster	30
Health care & social assistance	53.0	59.0	6.0	Growing	Faster	30
Information & communication	54.5	63.3	8.8	Growing	Faster	14
Management of companies	50.0	83.3	33.3	Growing	From No Change	1
Professional, scientific, & technical services	56.8	45.7	-11.1	Declining	From Expansion	1
Real estate rental & leasing	61.5	61.5	0.0	Growing	Flat	2
Repair, Maintenance/Washing Of Motor Vehicles..	66.7	65.4	-1.3	Growing	Slower	7
Transportation & warehousing	60.5	57.9	-2.6	Growing	Slower	2
Utilities	71.4	71.4	0.0	Growing	Flat	3
Water supply, sewage & waste management	45.5	60.0	14.5	Growing	From Contraction	1
Wholesale/Retail trade	54.8	60.7	5.9	Growing	Faster	18

Table 11: Inventory at a Glance

Index	Oct 2019 Index	Nov 2019 Index	Difference	Direction	Rate of Change	Trend (Months)
INVENTORY PMI	59.2	61.5	2.3	Growing	Faster	31
Accommodation & food services	58.6	60.2	1.6	Growing	Faster	17
Agriculture	64.1	61.4	-2.7	Growing	Slower	14
Arts, Entertainment & Recreation	41.7	62.5	20.8	Growing	From Contraction	1
Construction	65.2	65.7	0.5	Growing	Faster	17
Educational services	56.7	63.3	6.6	Growing	Faster	2
Electricity, gas, steam & air conditioning supply	53.6	42.9	-10.7	Declining	From Expansion	1
Finance & insurance	57.1	60.1	3.0	Growing	Faster	22
Health care & social assistance	56.0	61.8	5.8	Growing	Faster	31
Information & communication	59.4	56.7	-2.7	Growing	Slower	19
Management of companies	50.0	50.0	0.0	No Change	Flat	2
Professional, scientific, & technical services	57.1	63.0	5.9	Growing	Faster	2
Real estate rental & leasing	66.7	62.8	-3.9	Growing	Slower	21
Repair, Maintenance/Washing Of Motor Vehicles	68.2	58.3	-9.9	Growing	Slower	4
Transportation & warehousing	61.1	63.2	2.1	Growing	Faster	6
Utilities	58.3	64.3	6.0	Growing	Faster	3
Water supply, sewage & waste management	54.5	65.0	10.5	Growing	Faster	2
Wholesale/Retail trade	61.7	64.8	3.1	Growing	Faster	28

Table 12: Manufacturing PMI Data Series

Month	COMPOSITE PMI	Production Level	New Orders	Supplier Delivery Time	Employment Level	Raw Materials Inventory	New Export Orders	Output Prices	Input Prices	Quantity of Purchases	Backlog of Work	Stock of Finished Goods
Jul '14	51.3	55.2	53.0	46.4	46.9	52.9	43.6	50.6	54.2	53.3	46.4	47.2
Aug '14	49.7	49.7	51.2	49.9	45.9	52.2	40.8	48.6	52.7	50.8	45.4	48.6
Sep '14	54.0	57.4	57.6	46.4	49.3	55.7	45.4	49.3	52.9	55.1	46.9	49.8
Oct '14	51.9	55.1	55.3	46.2	46.8	52.4	45.9	49.7	56.7	57.1	50.5	51.7
Nov '14	52.2	55.1	56.9	45.1	47.2	51.7	46.0	53.3	60.9	56.0	50.0	47.6
Dec '14	49.8	51.2	51.1	49.7	46.8	48.4	44.6	53.6	56.3	51.4	47.5	51.1
Jan '15	50.2	50.4	49.3	51.3	51.1	49.3	47.7	48.7	55.6	52.5	48.8	45.5
Feb '15	53.0	57.4	54.7	43.8	50.0	56.4	50.1	54.0	60.9	58.0	50.7	53.7
Mar '15	48.9	52.1	48.9	47.8	46.4	47.1	38.1	50.1	56.4	48.7	44.5	46.5
Apr '15	52.0	56.9	54.1	42.7	48.9	53.9	43.0	50.2	54.4	53.0	48.3	48.7
May '15	49.4	53.6	49.7	44.6	48.0	48.0	36.9	51.6	59.0	50.5	44.9	45.6
Jun '15	49.5	51.5	50.8	42.0	48.5	53.3	40.0	49.2	56.7	53.0	45.3	49.3
Jul '15	47.8	49.7	46.2	43.5	48.4	52.6	40.1	47.9	55.0	51.7	45.2	45.3
Aug '15	48.4	51.0	50.1	43.1	44.8	52.4	37.6	49.0	53.1	50.2	43.7	46.1
Sep '15	50.7	54.9	52.1	46.8	47.1	49.0	40.3	47.5	52.8	51.0	42.5	43.2
Oct '15	49.2	52.0	49.3	42.7	48.4	53.1	39.8	49.1	53.8	48.3	45.6	46.8
Nov '15	51.2	55.4	52.9	47.3	45.5	52.2	38.7	46.2	52.8	51.0	46.0	46.9
Dec '15	51.2	55.4	52.7	45.2	47.5	52.7	38.0	48.6	56.5	54.5	45.1	46.4
Jan '16	47.2	49.3	46.2	48.4	46.0	45.8	38.3	52.6	56.7	49.9	44.2	46.3
Feb '16	45.5	45.0	43.0	52.8	45.0	44.7	39.2	53.0	57.0	42.8	38.5	44.4
Mar '16	45.9	46.6	43.0	50.6	45.5	47.1	37.8	56.4	60.9	41.6	41.2	43.8
Apr '16	43.7	42.7	41.8	52.2	42.0	43.0	36.3	63.9	67.8	43.6	42.6	41.6
May '16	45.8	47.9	42.7	50.2	45.7	43.9	38.7	59.6	68.4	42.7	37.0	40.1
Jun '16	41.9	40.2	37.0	55.6	42.2	39.4	35.3	61.4	70.0	39.0	40.2	36.0
Jul '16	44.1	43.0	42.4	51.7	43.8	41.4	38.5	60.8	64.2	41.6	41.9	39.0
Aug '16	42.1	40.5	37.5	57.4	40.4	40.0	31.2	64.1	69.8	39.9	38.3	38.3
Sep '16	42.5	40.9	38.7	55.6	41.2	40.9	26.3	66.5	74.0	42.8	37.1	42.4
Oct '16	44.1	42.3	40.3	57.7	42.2	42.9	37.3	65.2	71.8	43.5	39.2	39.9
Nov '16	46.0	46.9	45.1	53.2	40.6	46.1	39.6	65.7	71.2	48.1	45.2	42.0
Dec '16	52.0	57.6	51.8	47.9	48.6	51.6	37.2	70.4	73.2	52.7	45.3	48.5
Jan '17	48.2	51.3	47.9	48.5	45.3	46.3	33.1	67.9	71.4	48.4	43.6	46.9
Feb '17	44.6	45.2	44.0	48.7	41.7	44.8	38.4	69.9	70.9	47.7	43.2	43.9
Mar '17	47.7	50.8	45.6	51.3	43.6	49.1	38.5	65.0	68.3	50.1	43.6	45.1
Apr '17	51.1	58.5	50.1	47.5	46.6	50.6	37.7	65.1	69.2	45.1	40.0	46.4
May '17	52.5	58.7	50.5	49.9	50.7	50.8	37.6	61.3	68.4	46.1	42.3	51.8
June '17	52.9	58.2	51.0	50.3	51.1	52.3	32.6	62.7	66.6	46.2	43.9	49.1
July '17	54.1	59.3	52.7	51.3	51.8	53.6	37.5	60.4	64.1	48.0	42.1	48.5
Aug '17	53.6	57.4	52.3	52.0	51.5	54.9	36.7	58.8	64.9	49.0	47.9	51.6
Sep '17	55.3	58.8	53.5	55.4	52.8	56.4	30.4	58.2	65.7	49.4	51.9	50.4
Oct '17	55.0	58.4	52.8	55.5	53.1	56.5	35.5	55.4	62.7	49.6	50.8	50.0
Nov '17	55.9	59.3	54.3	56.0	53.7	57.1	37.6	54.0	64.3	48.1	50.0	48.8
Dec '17	59.3	63.2	60.0	57.4	53.9	61.1	40.2	54.3	63.4	53.6	45.7	47.4
Jan '18	57.3	59.6	58.3	56.8	53.3	57.7	35.1	55.0	63.3	49.1	42.9	45.4
Feb '18	56.3	57.8	55.6	57.0	53.9	58.1	42.0	55.9	65.4	54.3	37.6	53.3
Mar '18	56.7	59.1	56.1	56.6	53.3	59.4	36.4	52.1	61.1	54.1	42.1	48.7
Apr '18	56.9	58.6	55.8	57.4	55.0	59.5	37.6	51.3	62.4	52.9	41.4	51.1
May '18	56.5	58.8	54.9	57.5	55.2	58.1	40.1	53.9	61.8	50.8	38.5	55.8
June '18	57.0	59.2	56.2	56.5	55.4	57.7	37.6	53.8	61.9	47.6	38.0	51.1
July '18	56.8	59.0	55.8	56.8	55.0	57.4	39.4	52.3	60.7	51.1	40.7	51.3
Aug '18	57.1	59.3	56.9	55.9	55.5	57.1	39.7	50.1	59.3	50.1	43.1	50.7
Sep '18	56.2	58.4	55.3	56.1	54.9	55.9	37.1	52.4	57.5	49.4	42.2	50.5
Oct '18	56.8	58.9	56.8	56.4	54.8	56.2	39.9	51.2	56.7	50.9	39.6	51.5
Nov '18	57.9	59.9	58.1	56.9	55.4	58.7	41.2	51.9	57.8	52.2	40.0	53.8
Dec '18	61.1	63.6	62.3	58.4	57.0	63.2	42.1	51.6	61.3	56.1	41.7	50.6
Jan '19	58.5	59.3	58.9	58.3	56.4	59.9	41.4	52.5	62.2	52.5	42.1	52.3
Feb '19	57.1	57.5	56.9	58.2	56.3	56.2	39.7	53.7	60.9	52.1	44.1	55.4
Mar '19	57.4	58.3	56.7	58.4	56.9	57.1	47.9	62.3	57.6	51.8	47.6	60.7
Apr '19	57.7	58.8	57.2	58.1	57.0	57.5	37.4	52.4	60.2	57.3	44.5	54.4
May '19	57.8	59.1	56.9	58.4	57.3	56.8	37.7	52.3	62.2	51.5	40.8	51.5
June '19	57.4	59.3	55.9	58.7	57.5	55.0	38.0	52.4	62.7	52.1	43.8	51.1
July '19	57.6	58.9	57.2	57.5	57.3	56.2	41.1	52.2	59.5	52.5	41.8	51.5
Aug '19	57.9	58.7	57.1	58.3	57.1	58.7	39.9	50.3	57.0	51.2	42.4	52.1
Sep '19	57.7	58.5	57.2	58.4	56.6	58.1	39.0	51.9	58.8	50.7	43.9	53.5
Oct '19	58.2	59.3	57.9	58.6	56.8	58.6	40.0	52.5	58.4	53.7	42.5	53.1
Nov '19	59.3	60.1	59.4	58.7	57.7	60.6	41.0	53.1	59.3	55.8	41.4	53.1

Table 13: Non-Manufacturing PMI Data Series

Month	COMPOSITE PMI	Business Activity	New orders	Employment Level	Inventory	Average Input Price	Backlog of Work	New Exports Orders	Imports	Inventories (sentiment)
Jul '14	55.0	58.9	55.9	50.2	55.2	54.0	46.2	44.0	47.3	47.8
Aug '14	58.9	60.6	59.8	58.3	57.0	56.1	47.0	46.1	46.4	48.1
Sep '14	54.7	57.1	57.5	49.9	54.3	52.8	46.2	40.7	45.2	47.6
Oct '14	57.3	59.6	59.4	53.9	56.4	53.3	46.4	40.8	44.9	43.8
Nov '14	59.6	62.5	63.6	57.9	54.6	57.3	49.6	45.2	47.5	48.1
Dec '14	53.8	56.2	56.0	51.4	51.5	54.5	45.6	43.6	46.5	43.8
Jan '15	50.6	48.8	50.4	51.2	51.9	48.8	43.2	41.1	44.3	47.0
Feb '15	54.0	54.2	54.7	52.5	54.5	54.1	46.0	43.0	44.6	46.1
Mar '15	48.6	49.7	51.1	45.6	48.0	49.8	46.5	39.9	44.2	40.2
Apr '15	53.7	58.2	56.8	49.1	50.8	51.5	46.6	41.1	44.5	43.0
May '15	51.7	52.9	53.1	49.7	51.1	51.3	44.1	37.2	39.1	44.3
Jun '15	50.1	51.5	50.3	46.4	52.0	48.5	44.4	36.9	40.4	42.7
Jul '15	50.0	50.4	51.4	48.6	49.5	50.3	43.8	39.1	39.2	44.0
Aug '15	50.7	52.3	52.4	48.0	50.1	50.7	43.0	39.8	38.3	44.0
Sep '15	50.1	52.1	52.3	47.0	49.1	48.7	44.5	42.9	41.4	45.9
Oct '15	51.9	54.2	54.1	49.3	50.1	49.9	43.9	40.3	42.4	45.2
Nov '15	49.6	52.9	51.6	45.6	48.5	51.8	42.8	37.7	39.0	41.8
Dec '15	53.4	55.9	56.4	50.0	51.5	54.7	47.0	41.9	42.7	47.2
Jan '16	46.9	46.2	46.4	47.0	47.9	57.3	44.3	36.2	39.0	41.6
Feb '16	44.3	43.7	42.0	44.5	47.1	53.6	39.6	37.5	36.6	43.6
Mar '16	45.4	46.3	44.7	43.9	46.5	58.5	43.8	34.3	35.0	41.1
Apr '16	44.3	44.2	42.2	43.3	47.6	62.2	43.1	31.8	33.1	39.8
May '16	44.3	44.3	41.3	44.6	46.9	62.9	38.1	33.2	35.0	40.3
Jun '16	42.3	40.2	39.6	42.5	47.1	60.7	39.6	33.2	34.7	38.5
Jul '16	43.2	42.8	42.3	41.9	45.8	60.4	38.6	30.0	32.7	38.0
Aug '16	43.7	43.6	42.0	41.4	47.7	60.8	39.4	32.9	34.2	39.4
Sep '16	41.0	39.9	40.0	40.3	43.9	63.1	39.6	28.6	30.2	37.9
Oct '16	43.4	43.0	42.7	41.5	46.4	65.3	40.9	32.8	33.8	38.7
Nov '16	42.8	43.0	42.3	40.2	45.5	66.8	42.4	30.8	34.0	41.1
Dec '16	47.1	48.2	46.9	43.8	49.5	64.0	41.5	33.8	35.5	41.6
Jan '17	49.4	50.6	49.4	45.6	52.0	65.6	43.6	32.5	36.1	45.5
Feb '17	44.5	45.4	44.9	42.6	44.9	65.4	42.9	33.4	34.5	38.7
Mar '17	47.1	49.8	46.4	44.0	48.0	62.1	42.7	33.1	34.5	40.6
Apr '17	49.5	53.3	50.5	45.5	48.6	63.1	41.6	29.2	33.2	41.1
May '17	52.7	56.2	53.2	50.2	51.4	62.7	45.3	31.6	34.1	43.6
June '17	54.2	57.0	54.6	53.4	51.8	58.6	40.5	30.3	33.5	42.7
July '17	54.4	56.8	55.1	54.0	51.9	58.1	42.9	32.0	36.8	41.5
Aug '17	54.1	56.1	53.5	54.4	52.3	54.5	42.8	34.5	34.8	42.0
Sep '17	54.9	56.8	55.4	54.7	52.9	56.9	42.2	31.2	35.9	44.2
Oct '17	55.3	57.5	55.7	54.4	53.4	56.4	41.4	29.6	35.4	38.9
Nov '17	57.6	59.4	58.4	54.6	58.0	55.7	43.6	28.8	33.3	40.6
Dec '17	62.1	67.4	62.2	55.7	62.9	56.1	44.6	34.6	39.1	40.3
Jan '18	58.5	61.3	58.2	55.1	59.5	56.9	41.3	31.0	35.1	42.8
Feb '18	56.1	55.6	53.7	55.3	59.8	52.8	41.2	34.7	39.1	40.3
Mar '18	57.2	58.7	55.8	55.1	59.2	50.3	42.9	39.0	38.5	44.1
Apr '18	57.5	58.8	56.4	55.3	59.5	50.3	41.5	34.2	34.9	45.0
May '18	57.3	58.7	55.9	55.6	59.2	50.8	40.6	36.4	38.4	46.2
June '18	57.5	59.1	56.4	55.9	58.5	52.2	44.0	33.2	40.1	42.4
July '18	57.7	59.6	56.1	56.2	59.1	52.1	43.1	42.1	40.5	45.0
Aug '18	58.0	59.3	56.9	56.7	58.9	50.8	43.3	40.1	40.3	44.8
Sep '18	56.5	58.1	55.8	55.4	56.8	50.2	41.5	40.3	41.3	45.7
Oct '18	57.0	58.3	56.4	55.7	57.6	50.7	42.8	39.7	42.2	45.5
Nov '18	58.4	60.4	57.5	56.2	59.6	52.6	42.0	38.7	39.4	45.9
Dec '18	62.3	65.2	63.1	57.9	62.8	52.4	42.7	42.0	41.3	45.8
Jan '19	60.1	61.7	60.2	57.7	60.6	52.2	40.1	38.1	40.4	45.5
Feb '19	58.4	59.7	58.6	57.3	58.2	50.3	38.8	36.2	42.2	44.6
Mar '19	58.5	57.8	58.9	57.8	59.5	50.5	40.3	39.4	38.7	44.2
Apr '19	58.7	58.4	59.0	58.7	58.5	52.1	43.5	38.8	40.8	45.0
May '19	58.9	59.2	58.6	58.5	59.3	51.3	42.3	39.8	43.2	44.5
June '19	58.6	58.2	59.2	58.3	58.8	52.1	40.3	43.0	45.3	46.1
July '19	58.7	57.6	60.1	58.0	58.9	51.7	41.4	42.0	43.9	46.6
Aug '19	58.8	58.2	59.6	57.8	59.8	51.2	45.1	44.1	45.2	48.1
Sep '19	58.0	57.2	58.4	58.0	58.5	51.9	45.5	42.4	45.7	48.7
Oct '19	58.2	57.9	58.5	57.1	59.2	52.2	42.9	40.4	41.7	45.1
Nov '19	60.1	60.0	60.7	58.4	61.5	54.6	43.6	41.6	41.9	45.8