

Central Bank of Nigeria



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

Statistics Department

November 2017

PURCHASING MANAGERS' INDEX (PMI) NOVEMBER 2017 REPORT

1.0 Introduction

The November 2017 PMI was conducted by the Statistics Department of the Central Bank of Nigeria during the period November 13 - 17, 2017. The respondents were purchasing and supply executives of manufacturing and non-manufacturing organizations in 15 locations in Nigeria (Fig. 1).

The Bank makes no representation regarding the individual companies, other than the data they provided. The data contained herein further provides input for policy decisions.

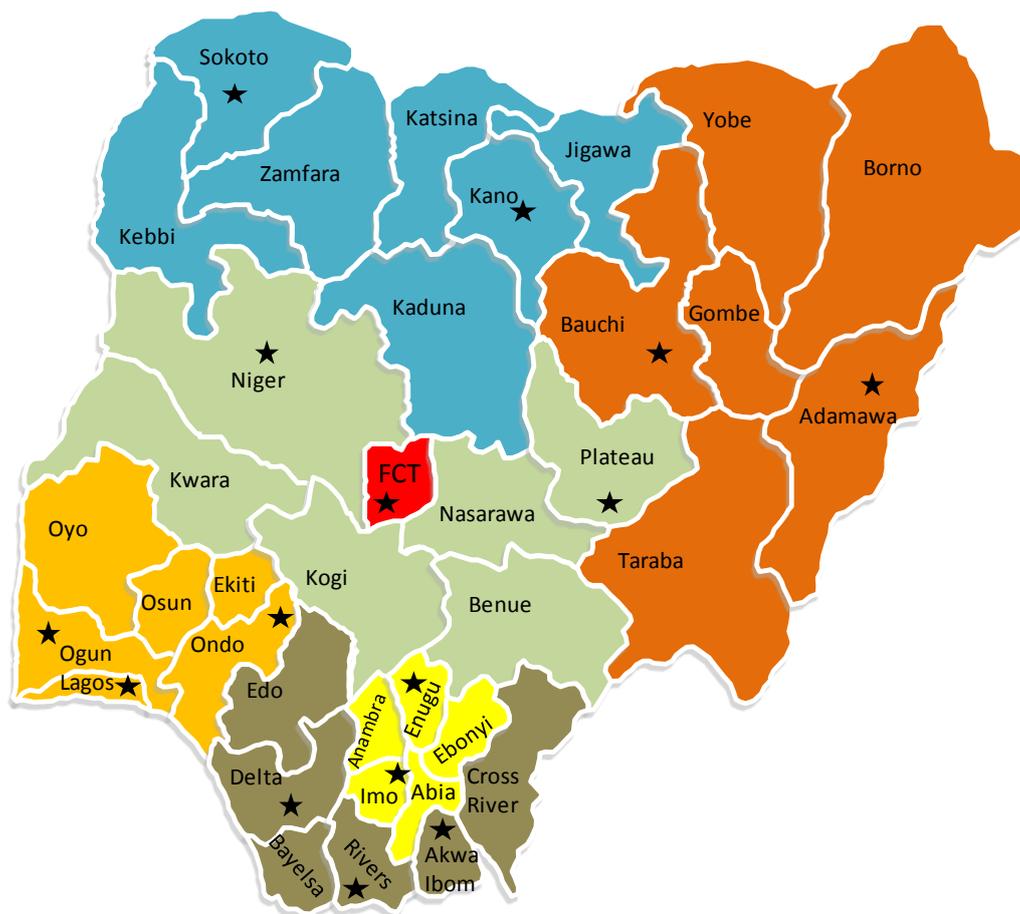


Fig. 1: Map of Nigeria with ★ showing the survey locations

1.1 Data and Method of Presentation

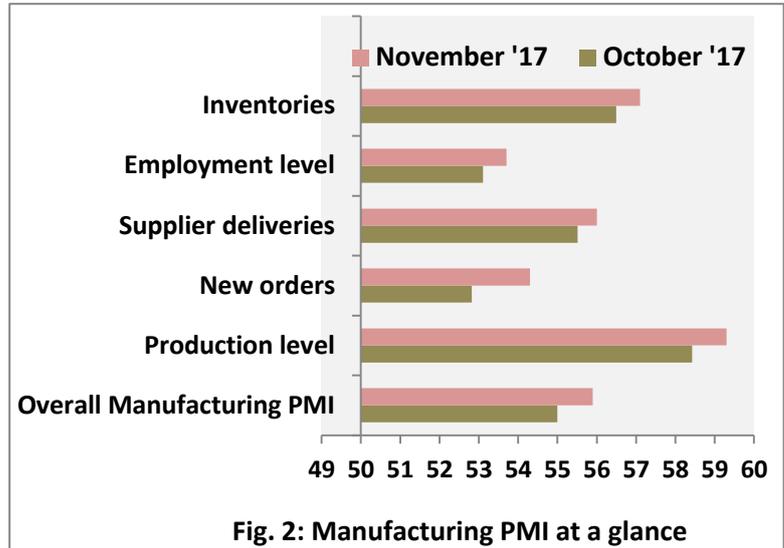
The *Manufacturing and Non-Manufacturing PMI Report* on businesses is based on survey responses indicating the *changes* in the level of business activities in the *current month* compared with the *preceding month*. For each of the indicators measured, this report shows the diffusion index of the responses. 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: 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: business activity, level of new orders, employment level and raw materials inventory, with equal weights of 25% each.

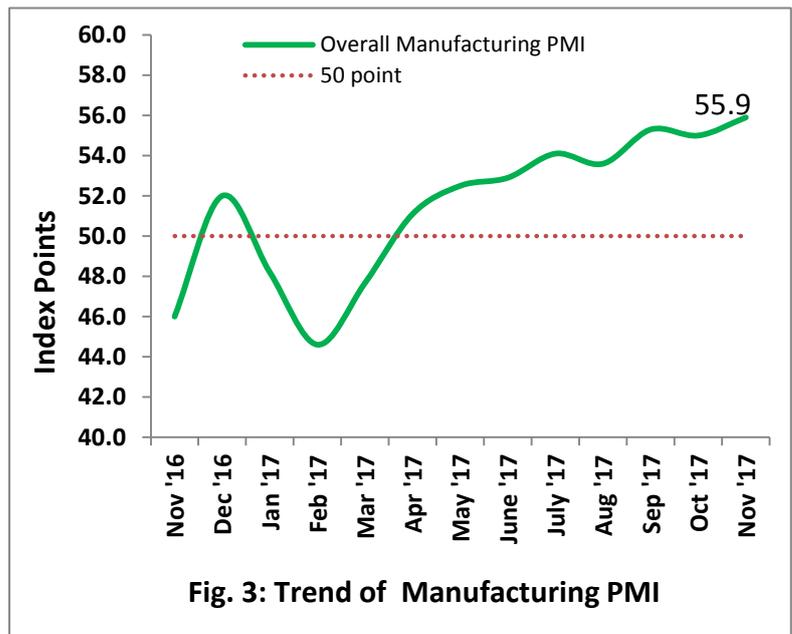
A composite PMI above 50 points indicates that the manufacturing/non-manufacturing economy is generally expanding, 50 points indicates no change and below 50 points indicates that it is generally contracting. The subsectors reporting growth are listed in the order of highest to lowest growth, while those 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 inventories growing at a faster rate in November 2017

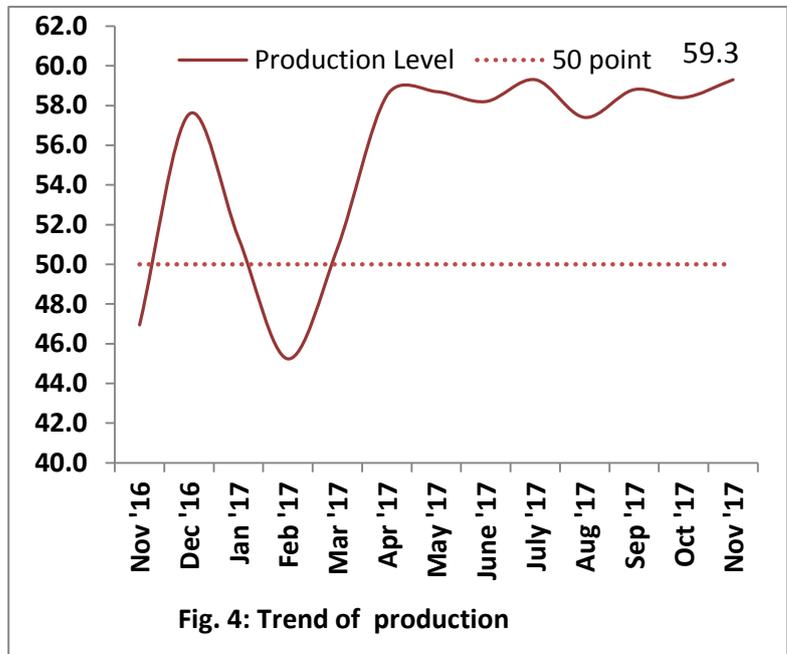


The *Manufacturing PMI* in the month of November stood at 55.9 index points indicating expansion in the manufacturing sector for the eight consecutive months. (Fig. 3 and Table 1). Twelve of the 16 subsectors reported growth in the review month in the following order: petroleum & coal products; printing & related support activities; computer & electronic products; textile, apparel, leather and footwear; plastics & rubber products; food, beverage & tobacco products; nonmetallic mineral products; chemical & pharmaceutical products; furniture & related products; paper products; cement and primary metal. The electrical equipment sector remained unchanged, while the appliances & components; fabricated metal products and transportation equipment sectors contracted in the review month.



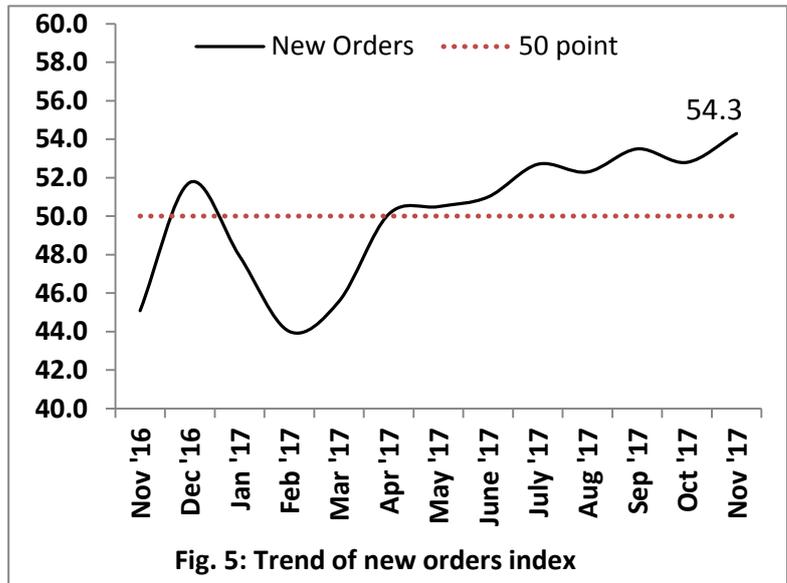
2.1 Production Level

At 59.3 points, the production level index for the manufacturing sector grew for the eighth consecutive month in November 2017. The index indicated an increase in production in the current month, when compared to its level in the preceding month. Ten of the 16 manufacturing subsectors recorded increase in production level, 4 remained unchanged, while the remaining 2 recorded declines in production during the review month (Fig. 4 and Table 2).



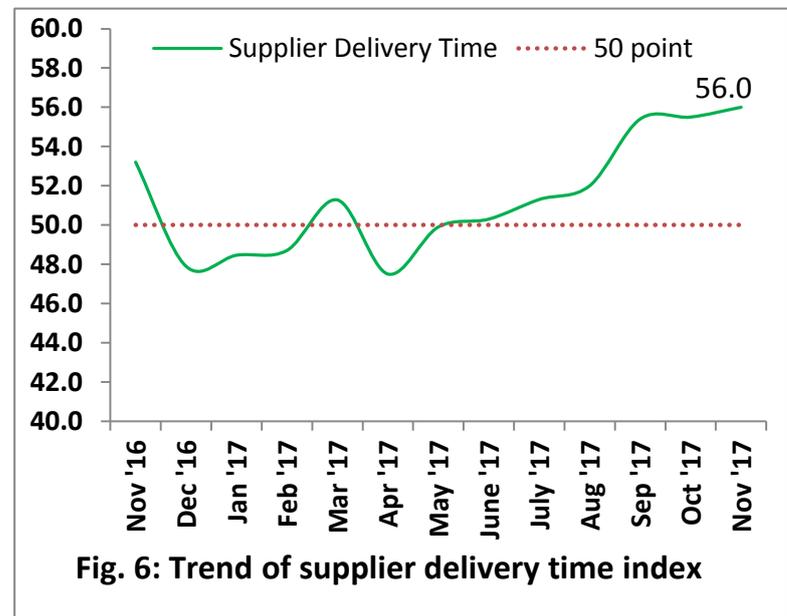
2.2 New Orders

At 54.3 points, the new orders index grew for the eighth consecutive month. Nine subsectors reported growth, 3 remained unchanged while 4 contracted in the review month (Fig. 5 and Table 3).



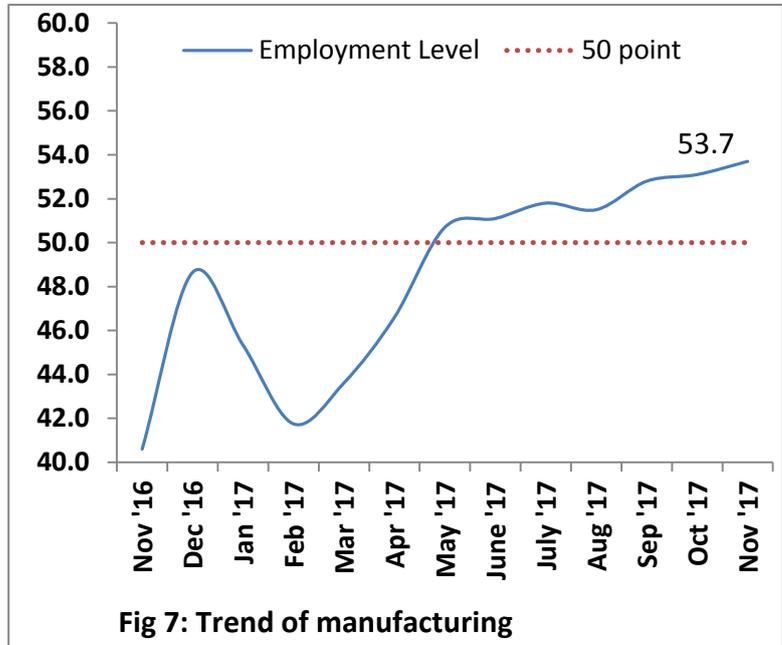
2.3 Supplier Delivery Time

The manufacturing supplier delivery time index stood at 56.0 points in November 2017, indicating faster supplier delivery time for the sixth consecutive month. Eleven subsectors recorded improved suppliers' delivery time, 4 remained unchanged while 1 subsector recorded delayed delivery time (Fig. 6 and Table 4).



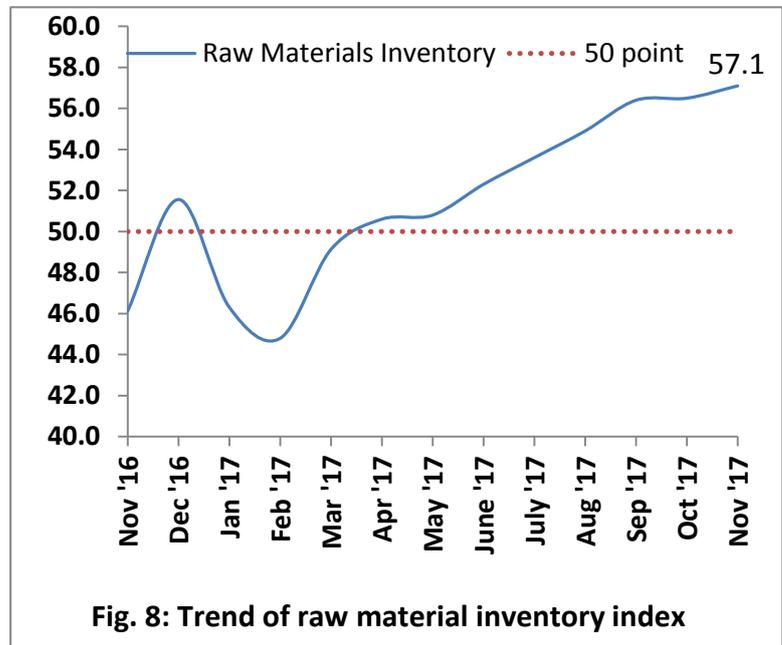
2.4 Employment Level

The employment level index in November 2017 stood at 53.7 points, indicating growth in employment level for the seventh consecutive month. Of the 16 subsectors, 8 recorded growth, 3 remained unchanged while 5 subsectors reduced their employment level in the review month (Fig. 7 and Table 5).



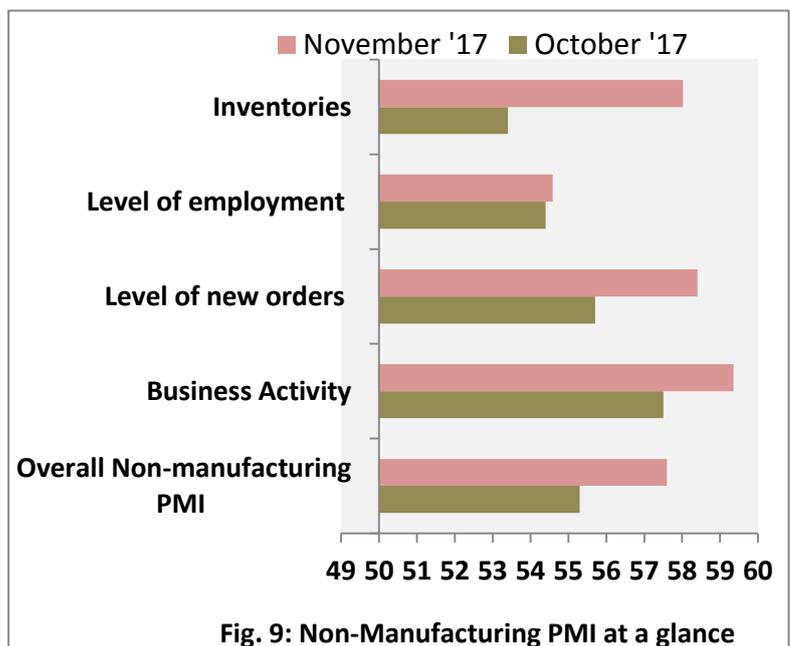
2.5 Raw material Inventories

The Manufacturing sector inventories index grew for the eight consecutive months in November 2017. At 57.1 points, the index grew at a faster rate when compared to its level in October 2017. Eleven of the 16 subsectors recorded growth, 3 remained unchanged while 2 subsectors recorded decline in raw material inventories (Fig. 8 and Table 6).

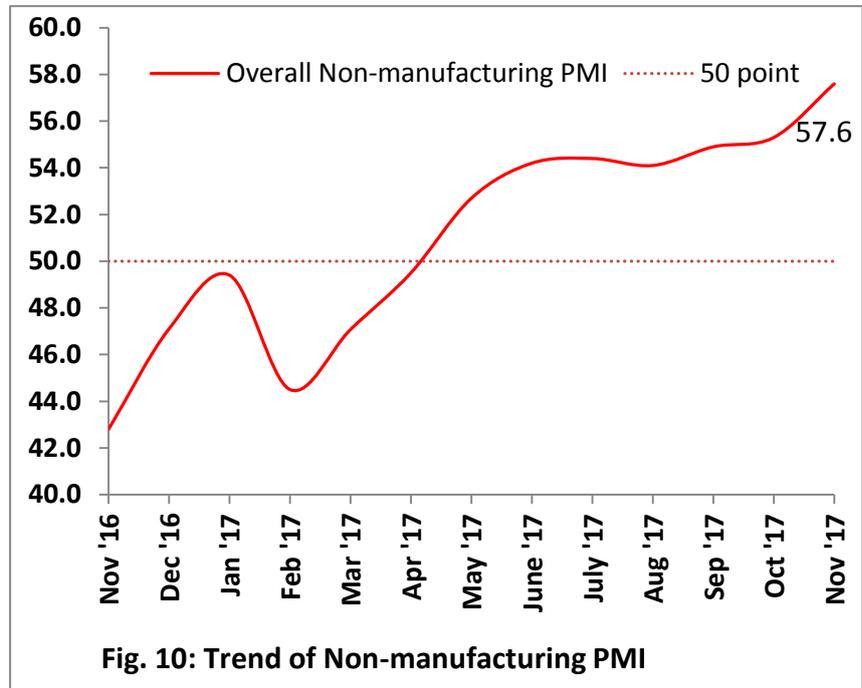


3.0 Non-Manufacturing PMI Report

Business activity, new orders, employment and inventories growing at a faster rate in November 2017

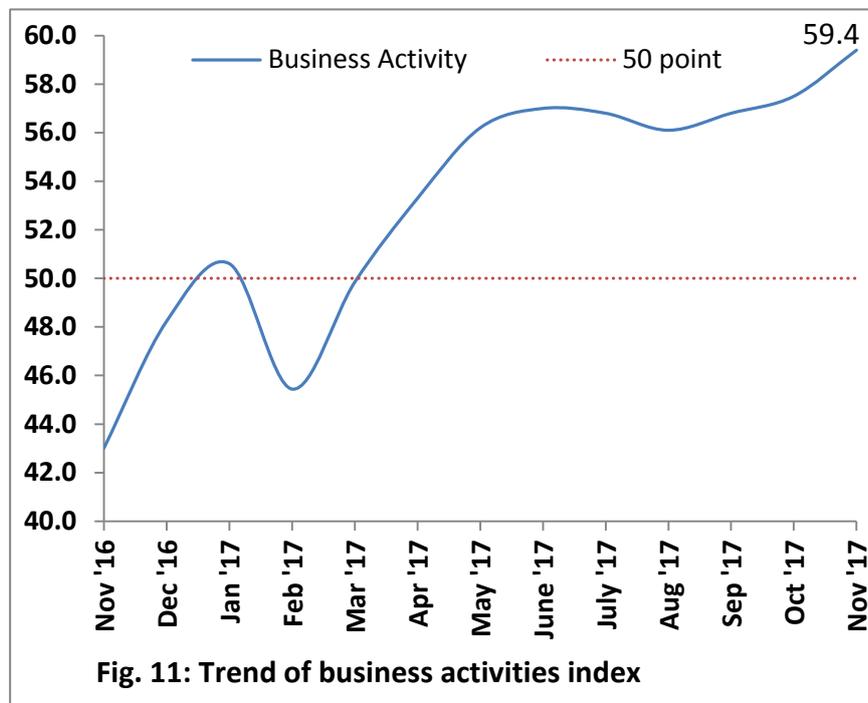


The *composite PMI* for the *non-manufacturing sector* stood at 57.6 points in November 2017, indicating growth in the Non-manufacturing PMI for the seventh consecutive month. Fifteen of the 18 non-manufacturing subsectors recorded growth in the following order: agriculture; public administration; utilities; health care & social assistance; finance & insurance; educational services; water supply, sewage & waste management; transportation & warehousing; repair, maintenance/washing of motor vehicles...; arts, entertainment & recreation; information & communication; wholesale trade; real estate, rental & leasing; accommodation & food services and electricity, gas, steam & air conditioning supply. The management of companies; Construction and professional, scientific, & technical services sub sectors recorded contraction in the review period (Fig. 10 and Table 7).



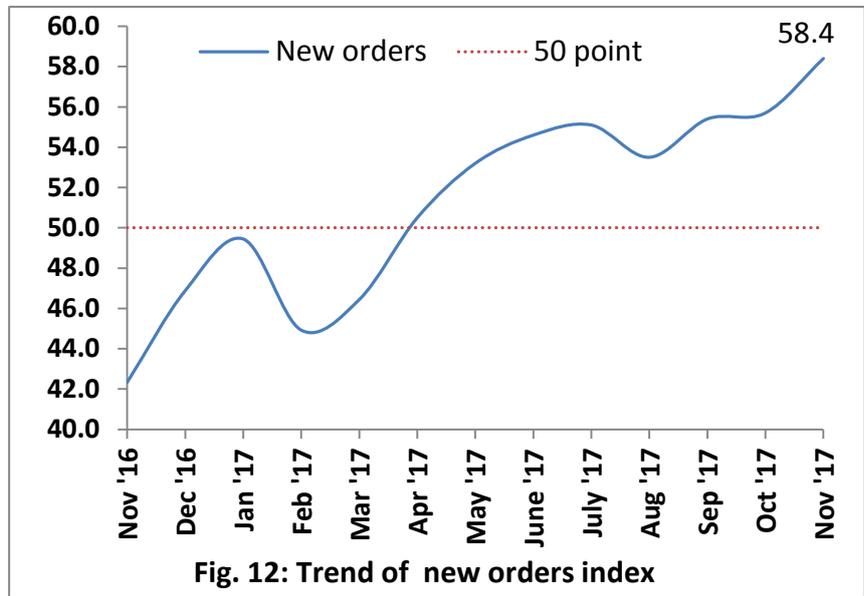
3.1 Business Activity

At 59.4 points, the business activity index grew for the eighth consecutive month, indicating growth in business activity in November 2017. The index grew at a faster rate, when compared to its level in the previous month. Fifteen subsectors recorded growth in business activity, while 3 declined in the review month (Table 8).



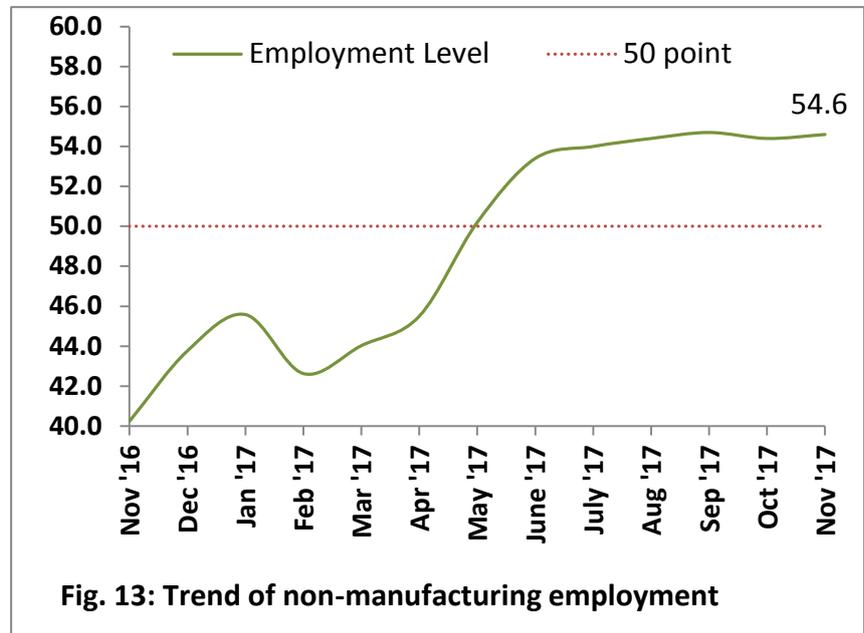
3.2 New Orders

New orders index at 58.4 points grew in November 2017 for the eight consecutive months. Of the 18 subsectors, 14 reported growth, 1 remained unchanged while 3 recorded declines (Table 9).



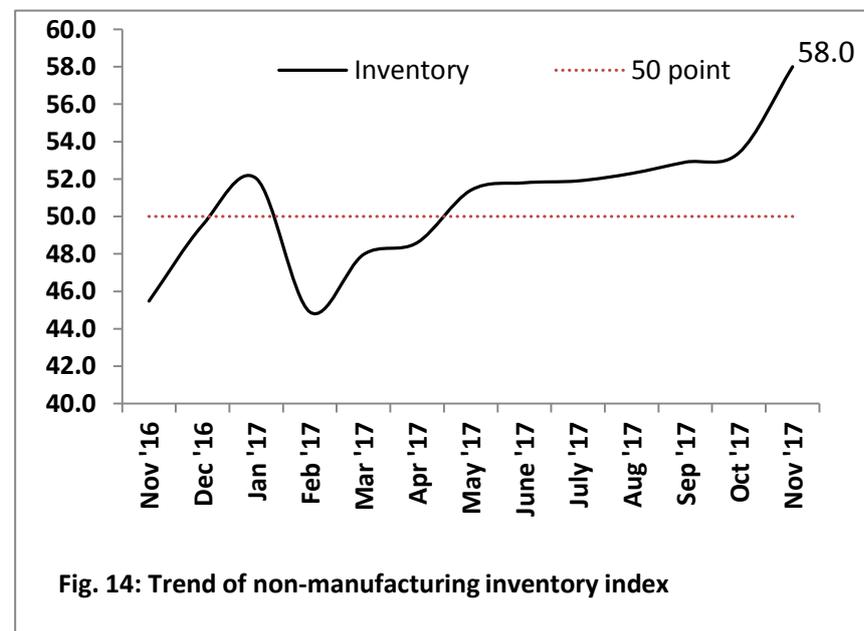
3.3 Employment Level

The employment level Index for the non-manufacturing sector stood at 54.6 points, indicating growth in employment for the seventh consecutive month. Thirteen subsectors recorded growth in the review month, 1 remained unchanged while 4 recorded declines (Table 10).



3.4 Non-manufacturing Inventory

At 58.0 points, non-manufacturing inventory index grew for the seventh consecutive month, indicating growth in inventories in the review period. Thirteen subsectors recorded higher inventories, 1 remained unchanged, while 4 subsectors recorded lower inventory in November, 2017 (Table 11).



APPENDICES

Table 1: Manufacturing at a Glance

Index	Series Index* October	Series Index* November	Change	Direction	Rate of Change	Trend** (Months)
Composite PMI \1	55.0	55.9	0.9	Growing	Faster	8
Production level	58.4	59.3	0.9	Growing	Faster	9
New orders	52.8	54.3	1.5	Growing	Faster	8
Supplier delivery time	55.5	56.0	0.5	Growing	Faster	6
Employment level	53.1	53.7	0.6	Growing	Faster	7
Raw materials/WIP Inventory	56.5	57.1	0.6	Growing	Faster	8
New Export Orders	35.5	37.6	2.1	Declining	Slower	33
Output Prices	55.4	54.0	-1.4	Growing	Slower	23
Input Prices	62.7	64.3	1.6	Growing	Faster	41
Quantity of Purchases	49.6	48.1	-1.5	Declining	Faster	8
Outstanding Business/Backlog of Work	50.8	50.0	-0.8	No Change	From Expansion	1
Stock of Finished Goods	50.0	48.8	-1.2	Declining	From No Change	1
Manufacturing Sub-Sectors						
Appliances & components	50.0	43.8	-6.2	Declining	From No Change	1
Cement	46.7	52.5	5.8	Growing	From Contraction	1
Chemical & pharmaceutical products	57.7	56.1	-1.6	Growing	Slower	5
Computer & electronic products	30.0	60.8	30.8	Growing	From Contraction	1
Electrical equipment	53.1	50.0	-3.1	No Change	From Expansion	1
Fabricated metal products	50.6	45.2	-5.4	Declining	From Expansion	1
Food, beverage & tobacco products	55.3	57.4	2.1	Growing	Faster	14
Furniture & related products	54.4	53.8	-0.6	Growing	Slower	4
Nonmetallic mineral products	58.0	57.1	-0.9	Growing	Slower	4
Paper products	59.8	52.7	-7.1	Growing	Slower	7
Petroleum & coal products	43.3	65.0	21.7	Growing	From Contraction	1
Plastics & rubber products	60.2	58.4	-1.8	Growing	Slower	4
Primary metal	53.6	50.7	-2.9	Growing	Slower	2
Printing & related support activities	52.6	61.0	8.4	Growing	Faster	5
Textile, apparel, leather & footwear	57.6	60.6	3.0	Growing	Faster	9
Transportation equipment	48.8	47.5	-1.3	Declining	Faster	2

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

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

** Number of month moving in current direction

Table 2: Production at a Glance

Index	Series Index October	Series Index November	Change	Direction	Rate of Change	Trend (Months)
PRODUCTION PMI	58.4	59.3	0.9	Growing	Faster	9
Appliances & components	100.0	50.0	-50.0	No Change	From Expansion	1
Cement	50.0	50.0	0.0	No Change	Flat	2
Chemical & pharmaceutical products	56.9	57.6	0.7	Growing	Faster	5
Computer & electronic products	50.0	66.7	16.7	Growing	From No Change	1
Electrical equipment	50.0	75.0	25.0	Growing	From No Change	1
Fabricated metal products	60.7	41.2	-19.5	Declining	From Expansion	1
Food, beverage & tobacco products	53.6	64.4	10.8	Growing	Faster	14
Furniture & related products	59.2	56.4	-2.8	Growing	Slower	9
Nonmetallic mineral products	60.0	58.8	-1.2	Growing	Slower	5
Paper products	60.0	63.6	3.6	Growing	Faster	3
Petroleum & coal products	50.0	50.0	0.0	No Change	Flat	2
Plastics & rubber products	68.0	60.0	-8.0	Growing	Slower	3
Primary metal	57.1	36.4	-20.7	Declining	From Expansion	1
Printing & related support activities	56.7	67.8	11.1	Growing	Faster	8
Textile, apparel, leather & footwear	62.2	66.0	3.8	Growing	Faster	9
Transportation equipment	50.0	50.0	0.0	No Change	Flat	2

Table 3: New Orders at a Glance

Index	Series Index October	Series Index November	Change	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	52.8	54.3	1.5	Growing	Faster	8
Appliances & components	0.0	50.0	50.0	No Change	From Contraction	1
Cement	33.3	75.0	41.7	Growing	From Contraction	1
Chemical & pharmaceutical products	61.1	59.1	-2.0	Growing	Slower	5
Computer & electronic products	0.0	50.0	50.0	No Change	From Contraction	1
Electrical equipment	50.0	37.5	-12.5	Declining	From No Change	1
Fabricated metal products	45.2	39.7	-5.5	Declining	Faster	5
Food, beverage & tobacco products	55.0	54.2	-0.8	Growing	Slower	14
Furniture & related products	48.0	52.1	4.1	Growing	From Contraction	1
Nonmetallic mineral products	60.0	55.9	-4.1	Growing	Slower	3
Paper products	63.3	45.5	-17.8	Declining	From Expansion	1
Petroleum & coal products	33.3	50.0	16.7	No Change	From Contraction	1
Plastics & rubber products	56.0	54.0	-2.0	Growing	Slower	3
Primary metal	71.4	63.6	-7.8	Growing	Slower	2
Printing & related support activities	50.0	57.8	7.8	Growing	From No Change	1
Textile, apparel, leather & footwear	53.7	62.8	9.1	Growing	Faster	2
Transportation equipment	37.5	33.3	-4.2	Declining	Faster	5

Table 4: Supplier Delivery Time at a Glance

Index	Series Index October	Series Index November	Change	Direction	Rate of Change	Trend (Months)
SUPPLIER DELIVERY TIME PMI	55.5	56.0	0.5	Growing	Faster	6
Appliances & components	100.0	25.0	-75.0	Declining	From Expansion	1
Cement	83.3	50.0	-33.3	No Change	From Expansion	1
Chemical & pharmaceutical products	55.6	50.0	-5.6	No Change	From Expansion	1
Computer & electronic products	50.0	50.0	0.0	No Change	Flat	3
Electrical equipment	37.5	50.0	12.5	No Change	From Contraction	1
Fabricated metal products	54.9	54.4	-0.5	Growing	Slower	5
Food, beverage & tobacco products	57.1	57.6	0.5	Growing	Faster	3
Furniture & related products	60.2	61.7	1.5	Growing	Faster	3
Nonmetallic mineral products	60.0	58.8	-1.2	Growing	Slower	5
Paper products	63.3	54.5	-8.8	Growing	Slower	4
Petroleum & coal products	50.0	100.0	50.0	Growing	From No Change	1
Plastics & rubber products	52.0	52.0	0.0	Growing	Flat	3
Primary metal	42.9	59.1	16.2	Growing	From Contraction	1
Printing & related support activities	52.2	54.4	2.2	Growing	Faster	3
Textile, apparel, leather & footwear	51.2	53.2	2.0	Growing	Faster	3
Transportation equipment	50.0	66.7	16.7	Growing	From No Change	1

Table 5: Employment Level at a Glance

Index	Series Index October	Series Index November	Change	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	53.1	53.7	0.6	Growing	Faster	7
Appliances & components	0.0	25.0	25.0	Declining	Slower	3
Cement	33.3	25.0	-8.3	Declining	Faster	2
Chemical & pharmaceutical products	55.6	51.5	-4.1	Growing	Slower	5
Computer & electronic products	50.0	66.7	16.7	Growing	From No Change	1
Electrical equipment	75.0	37.5	-37.5	Declining	From Expansion	1
Fabricated metal products	44.0	50.0	6.0	No Change	From Contraction	1
Food, beverage & tobacco products	55.1	53.4	-1.7	Growing	Slower	2
Furniture & related products	50.0	50.0	0.0	No Change	Flat	3
Nonmetallic mineral products	45.0	52.9	7.9	Growing	From Contraction	1
Paper products	53.3	50.0	-3.3	No Change	From Expansion	1
Petroleum & coal products	50.0	75.0	25.0	Growing	From No Change	1
Plastics & rubber products	62.0	64.0	2.0	Growing	Faster	3
Primary metal	42.9	31.8	-11.1	Declining	Faster	2
Printing & related support activities	52.2	62.2	10.0	Growing	Faster	4
Textile, apparel, leather & footwear	61.0	59.6	-1.4	Growing	Slower	2
Transportation equipment	50.0	33.3	-16.7	Declining	From No Change	1

Table 6: Raw Materials Inventory at a Glance

Index	Series Index October	Series Index November	Change	Direction	Rate of Change	Trend (Months)
RAW MATERIALS INVENTORY PMI	56.5	57.1	0.6	Growing	Faster	8
Appliances & components	100.0	75.0	-25.0	Growing	Slower	12
Cement	50.0	50.0	0.0	No Change	Flat	2
Chemical & pharmaceutical products	56.9	62.1	5.2	Growing	Faster	6
Computer & electronic products	0.0	83.3	83.3	Growing	From Contraction	1
Electrical equipment	50.0	50.0	0.0	No Change	Flat	2
Fabricated metal products	47.6	48.5	0.9	Declining	Slower	2
Food, beverage & tobacco products	58.0	56.8	-1.2	Growing	Slower	14
Furniture & related products	62.2	47.9	-14.3	Declining	From Expansion	1
Nonmetallic mineral products	70.0	61.8	-8.2	Growing	Slower	4
Paper products	56.7	50.0	-6.7	No Change	From Expansion	1
Petroleum & coal products	33.3	75.0	41.7	Growing	From Contraction	1
Plastics & rubber products	62.0	66.0	4.0	Growing	Faster	4
Primary metal	28.6	72.7	44.1	Growing	From Contraction	1
Printing & related support activities	51.1	61.1	10.0	Growing	Faster	5
Textile, apparel, leather & footwear	61.0	54.3	-6.7	Growing	Slower	2
Transportation equipment	75.0	83.3	8.3	Growing	Faster	2

Table 7: Non-Manufacturing at a Glance

Index	Series Index October	Series Index November	Change	Direction	Rate of Change	Trend (Months)
Composite PMI \1	55.3	57.6	2.3	Growing	Faster	7
Business Activity	57.5	59.4	1.9	Growing	Faster	8
Level of new orders/customers/incoming business	55.7	58.4	2.7	Growing	Faster	8
Level of employment	54.4	54.6	0.2	Growing	Faster	7
Inventory	53.4	58.0	4.6	Growing	Faster	7
Average price of Inputs (volume weighted)	56.4	55.7	-0.7	Growing	Slower	25
Level of outstanding business/ Backlog of work	41.4	43.6	2.2	Declining	Slower	41
New Exports orders	29.6	28.8	-0.8	Declining	Faster	41
Imports	35.4	33.3	-2.1	Declining	Faster	41
Inventory (sentiments)	38.9	40.6	1.7	Declining	Slower	41
Non-manufacturing sub-sectors						
Accommodation & food services	54.5	52.9	-1.6	Growing	Slower	7
Agriculture	64.6	78.3	13.7	Growing	Faster	18
Arts, entertainment & recreation	53.7	56.3	2.6	Growing	Faster	4
Construction	35.1	41.7	6.6	Declining	Slower	30
Educational services	50.4	60.8	10.4	Growing	Faster	12
Electricity, gas, steam & air conditioning supply	53.6	51.0	-2.6	Growing	Slower	9
Finance & insurance	60.1	62.0	1.9	Growing	Faster	9
Health care & social assistance	59.9	67.9	8.0	Growing	Faster	7
Information & communication	55.9	57.3	1.4	Growing	Faster	8
Management of companies	54.2	25.0	-29.2	Declining	From Expansion	1
Professional, scientific, & technical services	48.5	45.4	-3.1	Declining	Faster	3
Public administration	58.3	75.0	16.7	Growing	Faster	5
Real estate rental & leasing	56.1	54.7	-1.4	Growing	Slower	3
Repair, maintenance/washing of motor vehicles	49.6	57.7	8.1	Growing	From Contraction	1
Transportation & warehousing	55.9	57.4	1.5	Growing	Faster	9
Utilities	62.5	73.8	11.3	Growing	Faster	8
Water supply, sewage & waste management	55.7	59.4	3.7	Growing	Faster	9
Wholesale/Retail trade	55.8	54.5	-1.3	Growing	Slower	6

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

Table 8: Business activity at a Glance

Index	Series Index October	Series Index November	Change	Direction	Rate of Change	Trend (Months)
BUSINESS ACTIVITY PMI	57.5	59.4	1.9	Growing	Faster	8
Accommodation & food services	60.4	52.3	-8.1	Growing	Slower	7
Agriculture	74.4	83.3	8.9	Growing	Faster	18
Arts, entertainment & recreation	47.1	56.8	9.7	Growing	From Contraction	1
Construction	35.7	40.5	4.8	Declining	Slower	2
Educational services	51.6	61.1	9.5	Growing	Faster	3
Electricity, gas, steam & air conditioning supply	53.6	58.3	4.7	Growing	Faster	9
Finance & insurance	58.2	60.0	1.8	Growing	Faster	8
Health care & social assistance	62.8	65.3	2.5	Growing	Faster	9
Information & communication	54.7	58.3	3.6	Growing	Faster	8
Management of companies	83.3	0.0	-83.3	Declining	From Expansion	1
Professional, scientific, & technical services	48.5	44.4	-4.1	Declining	Faster	2
Public administration	83.3	90.0	6.7	Growing	Faster	2
Real estate rental & leasing	51.9	60.3	8.4	Growing	Faster	3
Repair, maintenance/washing of motor vehicles	46.6	65.4	18.8	Growing	From Contraction	1
Transportation & warehousing	59.4	63.0	3.6	Growing	Faster	8
Utilities	75.0	80.0	5.0	Growing	Faster	8
Water supply, sewage & waste management	54.5	66.7	12.2	Growing	Faster	3
Wholesale/Retail trade	59.1	55.7	-3.4	Growing	Slower	7

Table 9: New Orders at a Glance

Index	Series Index	Series Index	Change	Direction	Rate of	Trend (Months)
	October	November			Change	
NEW ORDERS PMI	55.7	58.4	2.7	Growing	Faster	8
Accommodation & food services	49.3	53.1	3.8	Growing	From Contraction	1
Agriculture	67.1	81.7	14.6	Growing	Faster	5
Arts, entertainment & recreation	52.9	50.0	-2.9	No Change	From Expansion	1
Construction	38.1	38.1	0.0	Declining	Faster	30
Educational services	46.8	62.5	15.7	Growing	From Contraction	1
Electricity, gas, steam & air conditioning supply	50.0	54.2	4.2	Growing	From No Change	1
Finance & insurance	64.5	63.3	-1.2	Growing	Slower	9
Health care & social assistance	58.5	69.4	10.9	Growing	Faster	6
Information & communication	54.7	54.2	-0.5	Growing	Slower	8
Management of companies	16.7	0.0	-16.7	Declining	Faster	2
Professional, scientific, & technical services	51.5	42.6	-8.9	Declining	From Expansion	1
Public administration	50.0	70.0	20.0	Growing	From No Change	1
Real estate rental & leasing	64.8	58.6	-6.2	Growing	Slower	2
Repair, maintenance/washing of motor vehicles	51.7	57.7	6.0	Growing	Faster	6
Transportation & warehousing	54.7	57.4	2.7	Growing	Faster	9
Utilities	68.8	80.0	11.2	Growing	Faster	8
Water supply, sewage & waste management	50.0	70.8	20.8	Growing	From No Change	1
Wholesale/Retail trade	57.7	54.8	-2.9	Growing	Slower	6

Table 10: Employment at a Glance

Index	Series Index	Series Index	Change	Direction	Rate of	Trend (Months)
	October	November			Change	
EMPLOYMENT LEVEL PMI	54.4	54.6	0.2	Growing	Faster	7
Accommodation & food services	53.0	53.1	0.1	Growing	Faster	4
Agriculture	67.1	70.0	2.9	Growing	Faster	7
Arts, entertainment & recreation	55.9	56.8	0.9	Growing	Faster	7
Construction	35.7	47.6	11.9	Declining	Slower	3
Educational services	56.5	56.9	0.4	Growing	Faster	11
Electricity, gas, steam & air conditioning supply	53.6	33.3	-20.3	Declining	From Expansion	1
Finance & insurance	60.9	63.3	2.4	Growing	Faster	6
Health care & social assistance	56.4	63.3	6.9	Growing	Faster	6
Information & communication	51.6	52.1	0.5	Growing	Faster	7
Management of companies	66.7	100.0	33.3	Growing	Faster	2
Professional, scientific, & technical services	43.9	50.0	6.1	No Change	From Contraction	1
Public administration	66.7	60.0	-6.7	Growing	Slower	2
Real estate rental & leasing	53.7	41.4	-12.3	Declining	From Expansion	1
Repair, maintenance/washing of motor vehicles	56.9	42.3	-14.6	Declining	From Expansion	1
Transportation & warehousing	51.6	59.3	7.7	Growing	Faster	9
Utilities	43.8	70.0	26.2	Growing	From Contraction	1
Water supply, sewage & waste management	59.1	54.2	-4.9	Growing	Slower	3
Wholesale/Retail trade	53.6	51.3	-2.3	Growing	Slower	6

Table 11: Inventory at a Glance

Index	Series Index	Series Index	Change	Direction	Rate of	Trend (Months)
	October	November			Change	
INVENTORY PMI	53.4	58.0	4.6	Growing	Faster	7
Accommodation & food services	55.2	51.5	-3.7	Growing	Slower	4
Agriculture	50.0	75.0	25.0	Growing	From No Change	1
Arts, entertainment & recreation	58.8	61.4	2.6	Growing	Faster	2
Construction	31.0	40.5	9.5	Declining	Slower	5
Educational services	46.8	62.5	15.7	Growing	From Contraction	1
Electricity, gas, steam & air conditioning supply	57.1	58.3	1.2	Growing	Faster	2
Finance & insurance	56.6	59.1	2.5	Growing	Faster	6
Health care & social assistance	62.0	73.5	11.5	Growing	Faster	7
Information & communication	62.5	60.4	-2.1	Growing	Slower	5
Management of companies	50.0	0.0	-50.0	Declining	From No Change	1
Professional, scientific, & technical services	50.0	44.4	-5.6	Declining	From No Change	1
Public administration	33.3	80.0	46.7	Growing	From Contraction	1
Real estate rental & leasing	53.8	56.9	3.1	Growing	Faster	2
Repair, maintenance/washing of motor vehicles	43.1	61.5	18.4	Growing	From Contraction	1
Transportation & warehousing	57.8	50.0	-7.8	No Change	From Expansion	1
Utilities	62.5	65.0	2.5	Growing	Faster	3
Water supply, sewage & waste management	59.1	45.8	-13.3	Declining	From Expansion	1
Wholesale/Retail trade	52.6	55.7	3.1	Growing	Faster	4

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

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