

Central Bank of Nigeria



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

Statistics Department

February 2020

PURCHASING MANAGERS' INDEX (PMI) FEBRUARY 2020 REPORT

1.0 Introduction

The February 2020 PMI survey was conducted by the Statistics Department of the Central Bank of Nigeria during the period February 10-14, 2020. 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 slower rate in February 2020

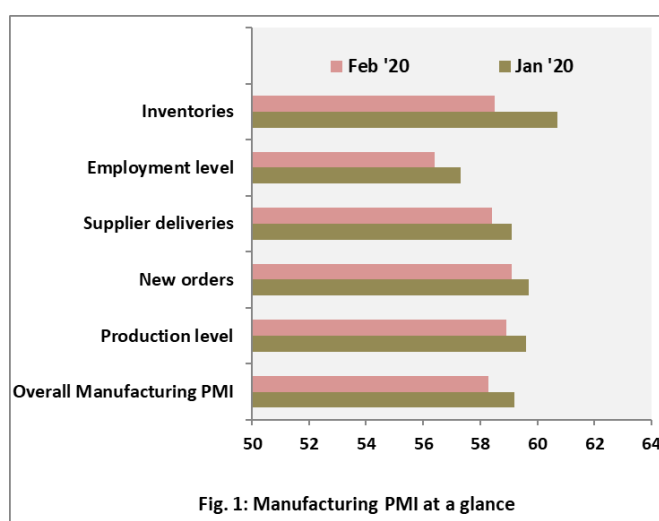


Fig. 1: Manufacturing PMI at a glance

The *Manufacturing PMI* in the month of February stood at 58.3 index points, indicating expansion in the manufacturing sector for the thirty-fifth consecutive month (Fig. 2 and Table 1). The index grew at a slower rate when compared to the index in January. Of the 14 surveyed subsectors, 12 reported growth (above 50% threshold) in the review month in the following order: transportation equipment; petroleum & coal products; Nonmetallic mineral products; Paper products; cement ; textile, apparel, leather & footwear; Furniture & related products; food, beverage & tobacco products; plastics & rubber products; Fabricated metal products; chemical & pharmaceutical products; plastic and rubber products and Electrical equipment. The Primary metal and Printing & related support activities subsectors recorded declines (Fig. 2 and Table 1).

2.1 Production Level

At 58.9 points, the production level index for the manufacturing sector grew for the thirty-sixth consecutive month in February 2020. The index however indicated slower growth in the current month, when compared to its level in January 2020. Ten of the 14 manufacturing subsectors recorded increased production level, 3 remained unchanged while 1 recorded a decline (Fig. 3 and Table 2).

2.2 New Orders

At 59.1 points, the new orders index grew for the thirty-fifth consecutive month, indicating increases in new orders in February 2020. The index grew at a slower rate, when compared to its level in January 2020. Eleven subsectors reported growth, while the remaining 3 recorded declines in the review month (Fig. 4 and Table 3).

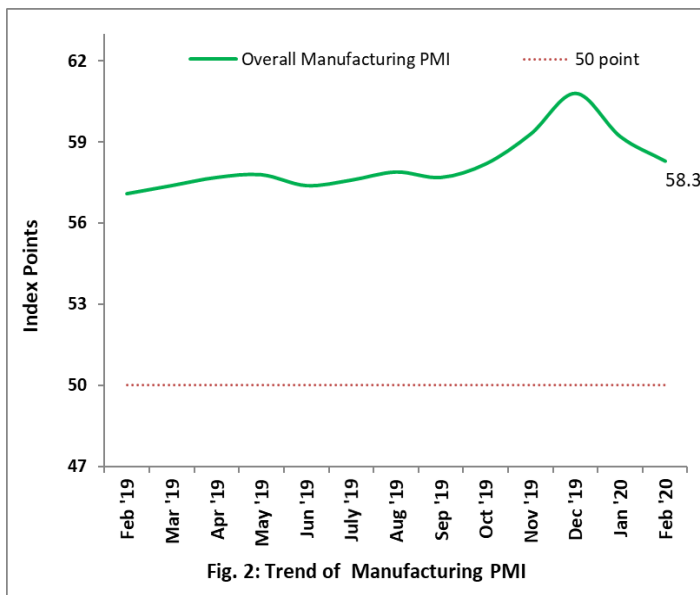


Fig. 2: Trend of Manufacturing PMI

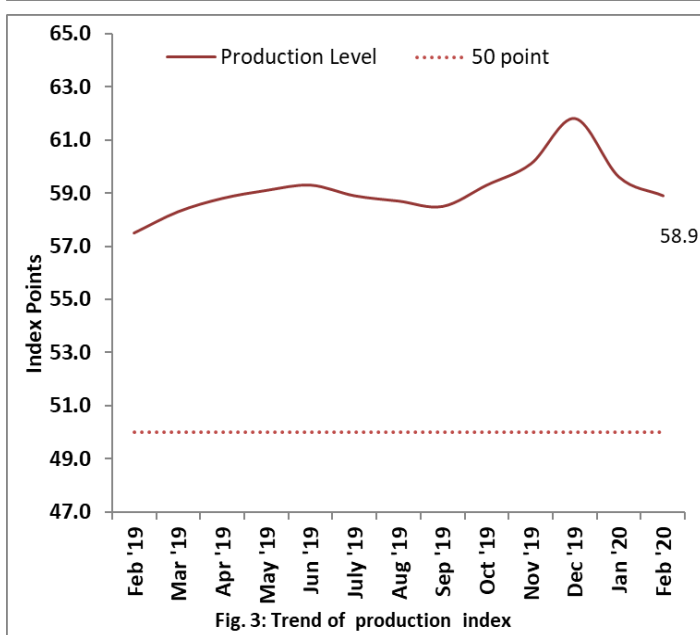


Fig. 3: Trend of production index

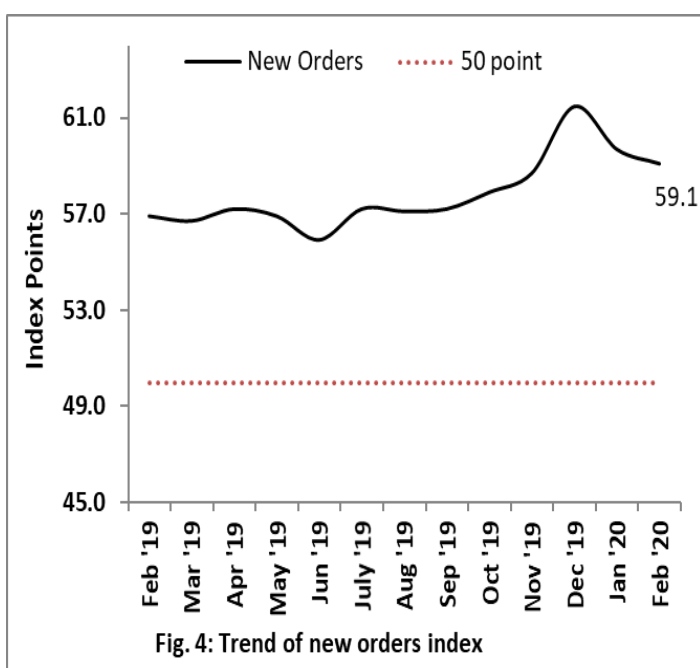
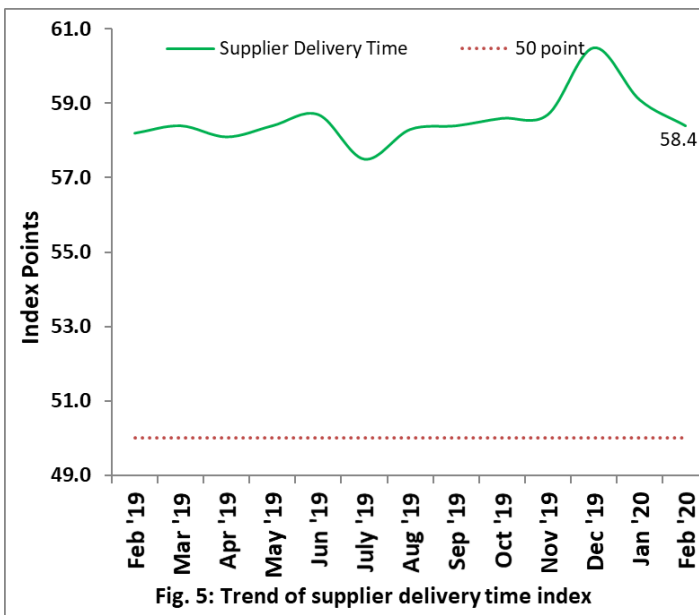


Fig. 4: Trend of new orders index

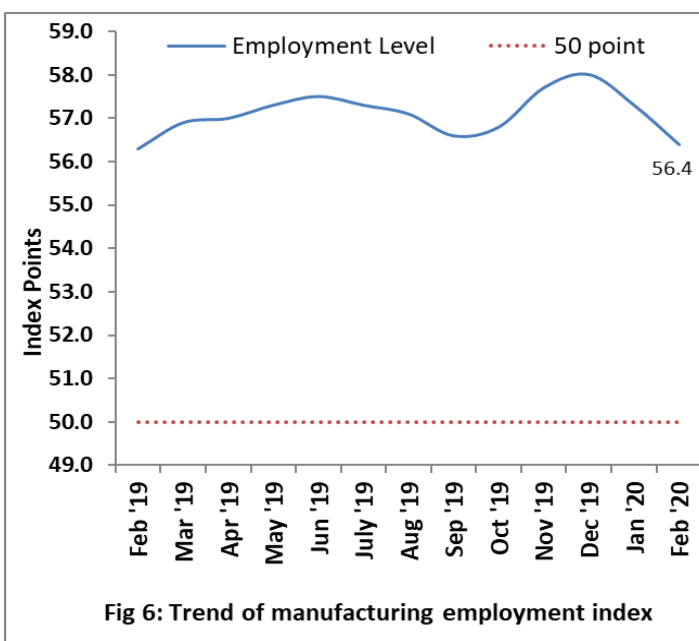
2.3 Supplier Delivery Time

The manufacturing supplier delivery time index stood at 58.4 points in February 2020, indicating faster supplier delivery time. The index has recorded growth for thirty-three consecutive months. Ten of the 14 subsectors recorded improved suppliers' delivery time, while 4 subsectors reported no change in delivery time in February 2020 (Fig. 5 and Table 4).



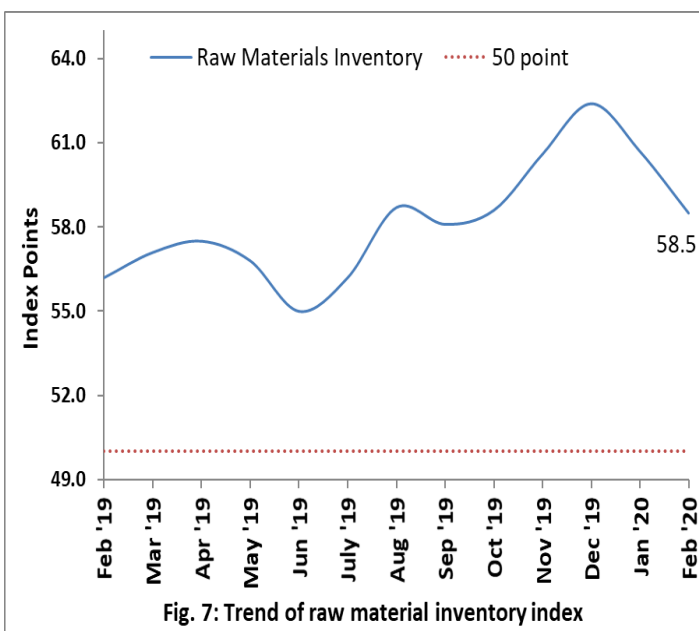
2.4 Employment Level

The employment level index for February 2020 stood at 56.4 points, indicating growth in employment level for the thirty-fourth consecutive month. Of the 14 subsectors, 9 reported increased employment level, 3 subsectors remain unchanged, while the electrical equipment and printing & related support services subsector recorded lower employment level in the review month (Fig. 6 and Table 5).



2.5 Raw material Inventories

The manufacturing sector inventories index grew for the thirty-fifth consecutive month in February 2020. At 58.5 points, the index grew at a slower rate when compared to its level in January 2020. Eight of the 14 subsectors recorded growth, 5 subsectors reported unchanged inventories, while the cement subsector reported lower 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 slower rate in February 2020

The *composite PMI* for the *non-manufacturing* sector stood at 58.6 points in February 2020, indicating expansion in Non-manufacturing activities for the thirty-fourth consecutive month. The index however grew at a slower rate when compared to its level in January 2020. Of the 17 subsectors surveyed, 16 subsectors recorded growth (above the 50% threshold) in the following order: repair, maintenance/washing of motor vehicles...; utilities; management of companies; water supply, sewage & waste management; information & communication; transportation & warehousing; health care & social assistance; finance & insurance; wholesale trade; accommodation & food services; arts, entertainment & recreation; real estate, rental & leasing; electricity, gas, steam & air conditioning supply; educational services; construction and agriculture while professional, scientific, & technical services subsector recorded a decline in the review period (Fig. 9 and Table 7).

3.1 Business Activity

At 59.3 points, the business activity index grew for the thirty-fifth consecutive month, indicating expansion in non-manufacturing business activity in February 2020. All the 17 surveyed subsectors recorded growth in business activity in the review month (Fig 10 Table 8).

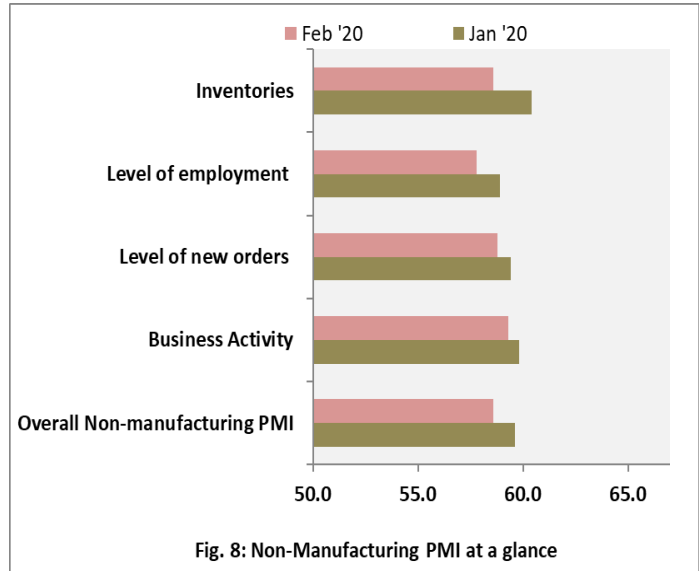


Fig. 8: Non-Manufacturing PMI at a glance

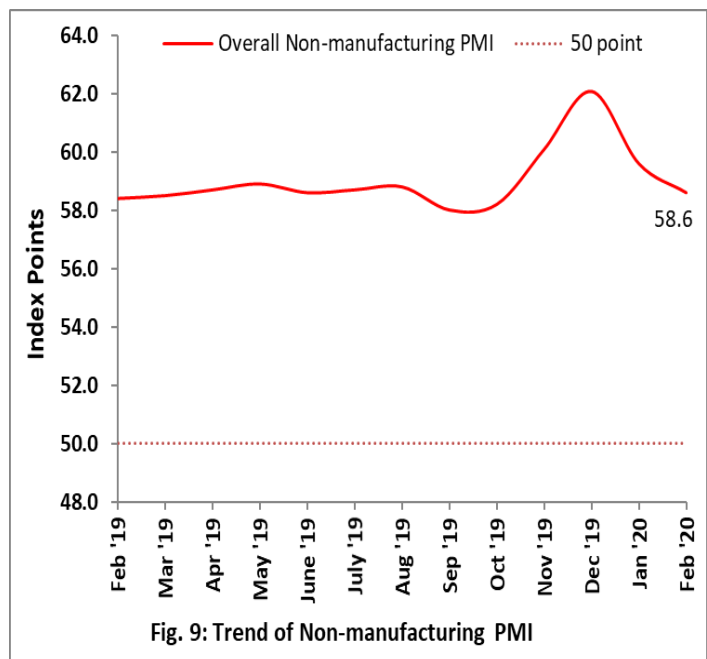


Fig. 9: Trend of Non-manufacturing PMI

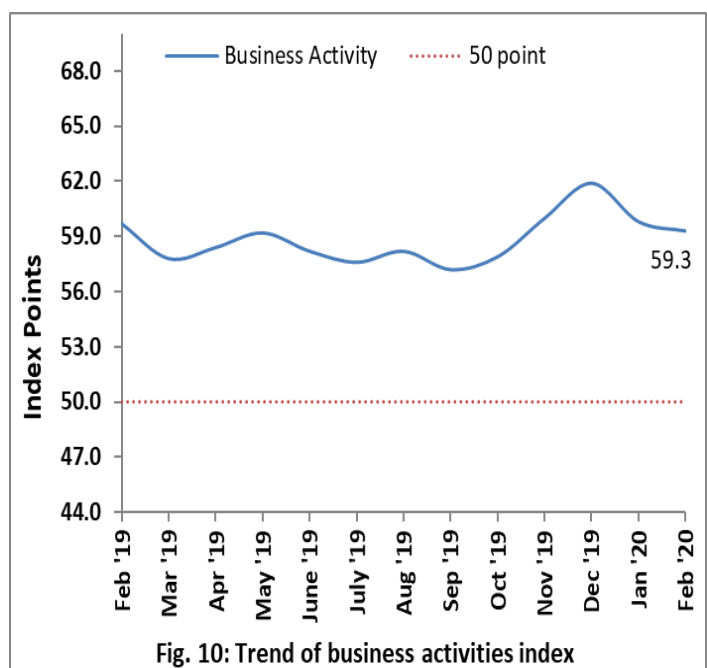
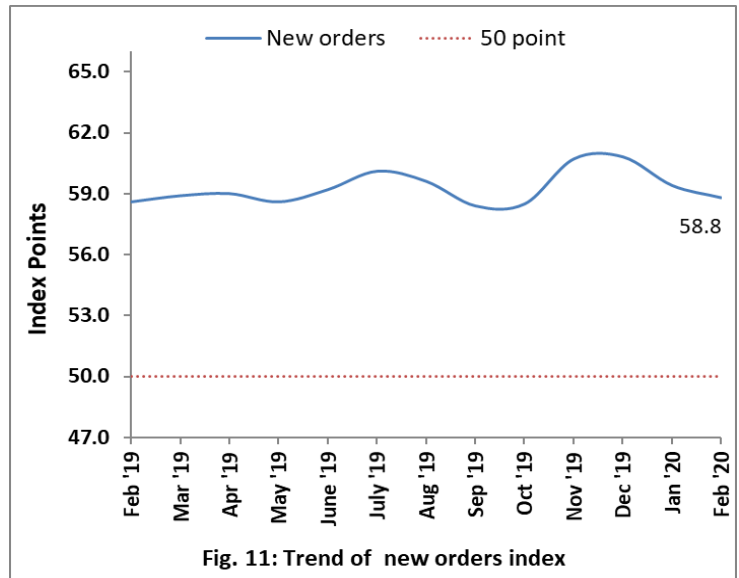


Fig. 10: Trend of business activities index

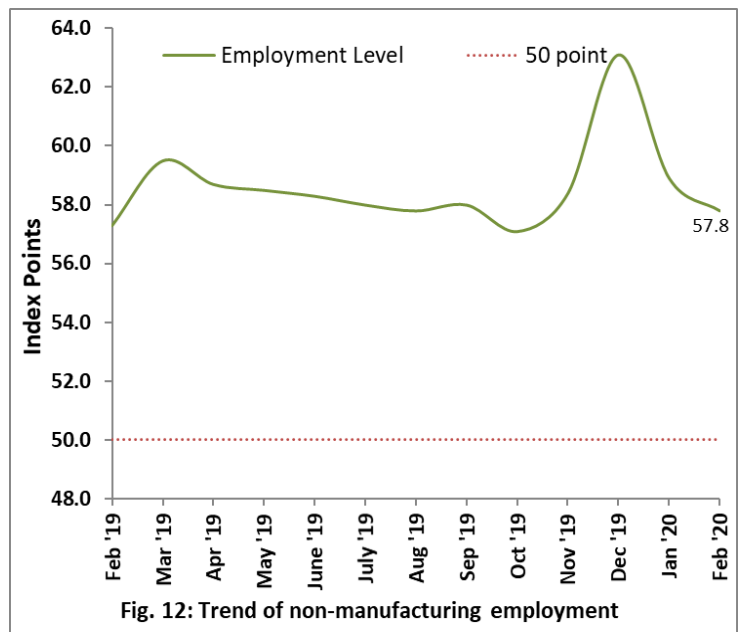
3.2 New Orders

At 58.8 points, new orders index grew for the thirty-fifth consecutive month in February 2020. Of the 17 surveyed subsectors, sixteen recorded growth, while the agriculture sector recorded decline in new orders during the review period (Fig 11 Table 9).



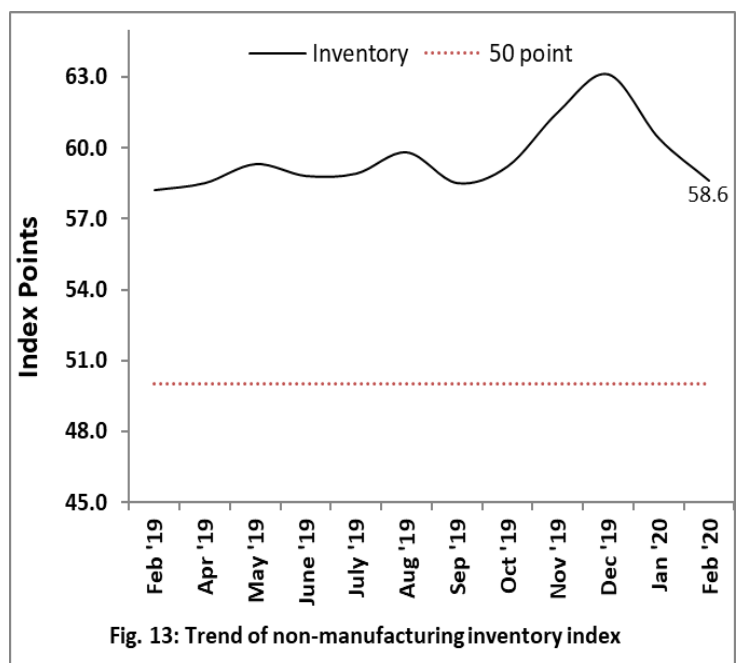
3.3 Employment Level

The employment level Index for the non-manufacturing sector stood at 57.8 points, indicating growth in employment for the thirty-fourth consecutive month. Of the 17 surveyed subsectors, 14 recorded growth in employment level in the review period, the Management of companies subsector recorded no change while 2 subsectors recorded declines in the employment level (Fig 12 Table 10).



3.4 Non-manufacturing Inventory

At 58.6 points, non-manufacturing inventory index grew for the thirty-fourth consecutive month, indicating growth in inventories in the review period. From the surveyed subsectors, Fourteen of the 17 subsectors recorded growth in inventories in February 2020, Arts, Entertainment & Recreation reported no change, while 2 subsectors recorded declines in inventories in the review period (Fig 13, Table 11).



APPENDICES

Table 1: Details of Overall Manufacturing PMI

Index	Jan 2020 Index*	Feb 2020 Index*	Difference	Direction	Rate of Change	Trend** (Months)
Composite PMI \1	59.2	58.3	-0.9	Growing	Slower	35
Production level	59.6	58.9	-0.7	Growing	Slower	36
New orders	59.7	59.1	-0.6	Growing	Slower	35
Supplier delivery time	59.1	58.4	-0.7	Growing	Slower	33
Employment level	57.3	56.4	-0.9	Growing	Slower	34
Raw materials/WIP Inventory	60.7	58.5	-2.2	Growing	Slower	35
New Export Orders	37.0	41.9	4.9	Declining	Slower	60
Output Prices	55.3	53.7	-1.6	Growing	Slower	50
Input Prices	63.5	61.4	-2.1	Growing	Slower	68
Quantity of Purchases	54.8	55.5	0.7	Growing	Faster	17
Outstanding Business/Backlog of Work	42.6	43.3	0.7	Declining	Slower	27
Stock of Finished Goods	51.0	51.8	0.8	Growing	Faster	23
Manufacturing Sub-Sectors						
Cement	52.0	62.5	10.5	Growing	Faster	17
Chemical & pharmaceutical products	58.2	57.8	-0.4	Growing	Slower	25
Electrical equipment	50.0	54.0	4.0	Growing	From No Change	1
Fabricated metal products	58.0	58.8	0.8	Growing	Faster	20
Food, beverage & tobacco products	61.6	59.7	-1.9	Growing	Slower	41
Furniture & related products	68.0	60.6	-7.4	Growing	Slower	21
Nonmetallic mineral products	45.5	65.3	19.8	Growing	From Contraction	1
Paper products	69.1	64.2	-4.9	Growing	Slower	3
Petroleum & coal products	85.0	68.3	-16.7	Growing	Slower	11
Plastics & rubber products	62.2	56.3	-5.9	Growing	Slower	19
Primary metal	62.0	47.1	-14.9	Declining	From Expansion	8
Printing & related support activities	43.2	45.9	2.7	Declining	Slower	1
Textile, apparel, leather & footwear	57.8	61.3	3.5	Growing	Faster	7
Transportation equipment	81.7	79.2	-2.5	Growing	Slower	18

\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	Jan 2020 Index	Feb 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
PRODUCTION PMI	59.6	58.9	-0.7	Growing	Slower	36
Cement	50.0	75.0	25.0	Growing	From No Change	1
Chemical & pharmaceutical products	55.3	57.7	2.4	Growing	Faster	4
Electrical equipment	50.0	50.0	0.0	No Change	Flat	2
Fabricated metal products	59.5	59.5	0.0	Growing	Flat	12
Food, beverage & tobacco products	62.5	60.1	-2.4	Growing	Slower	41
Furniture & related products	79.7	64.5	-15.2	Growing	Slower	21
Nonmetallic mineral products	36.8	61.8	25.0	Growing	From Contraction	1
Paper products	87.5	66.7	-20.8	Growing	Slower	3
Petroleum & coal products	100.0	83.3	-16.7	Growing	Slower	11
Plastics & rubber products	52.3	50.0	-2.3	No Change	From Expansion	1
Primary metal	50.0	50.0	0.0	No Change	Flat	2
Printing & related support activities	38.5	40.0	1.5	Declining	Slower	2
Textile, apparel, leather & footwear	65.2	70.4	5.2	Growing	Faster	2
Transportation equipment	83.3	100.0	16.7	Growing	Faster	6

Table 3: Details of New Orders PMI

Index	Jan 2020 Index	Feb 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	59.7	59.1	-0.6	Growing	Slower	35
Cement	50.0	75.0	25.0	Growing	From No Change	1
Chemical & pharmaceutical products	61.8	60.3	-1.5	Growing	Slower	4
Electrical equipment	60.0	60.0	0.0	Growing	Flat	2
Fabricated metal products	55.4	64.5	9.1	Growing	Faster	9
Food, beverage & tobacco products	62.9	59.6	-3.3	Growing	Slower	41
Furniture & related products	73.4	61.3	-12.1	Growing	Slower	9
Nonmetallic mineral products	34.2	67.6	33.4	Growing	From Contraction	1
Paper products	68.8	66.7	-2.1	Growing	Slower	3
Petroleum & coal products	100.0	66.7	-33.3	Growing	Slower	3
Plastics & rubber products	63.6	47.6	-16.0	Declining	From Expansion	1
Primary metal	65.0	35.7	-29.3	Declining	From Expansion	1
Printing & related support activities	40.4	48.0	7.6	Declining	Slower	2
Textile, apparel, leather & footwear	50.0	63.0	13.0	Growing	From No Change	1
Transportation equipment	100.0	83.3	-16.7	Growing	Slower	4

Table 4: Details of Supplier Delivery Time PMI

Index	Jan 2020 Index	Feb 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
SUPPLIER DELIVERY TIME PMI	59.1	59.1	0.0	Growing	Flat	33
Cement	70.0	50.0	-20.0	No Change	From Expansion	1
Chemical & pharmaceutical products	60.5	52.6	-7.9	Growing	Slower	8
Electrical equipment	30.0	70.0	40.0	Growing	From Contraction	1
Fabricated metal products	68.9	55.3	-13.6	Growing	Slower	7
Food, beverage & tobacco products	56.7	58.7	2.0	Growing	Faster	20
Furniture & related products	51.6	51.6	0.0	Growing	Flat	15
Nonmetallic mineral products	66.7	71.9	5.2	Growing	Faster	22
Paper products	68.8	61.1	-7.7	Growing	Slower	4
Petroleum & coal products	33.3	50.0	16.7	No Change	From Contraction	1
Plastics & rubber products	63.6	76.2	12.6	Growing	Faster	6
Primary metal	70.0	50.0	-20.0	No Change	From Expansion	1
Printing & related support activities	55.8	58.0	2.2	Growing	Faster	8
Textile, apparel, leather & footwear	54.5	59.3	4.8	Growing	Faster	6
Transportation equipment	83.3	50.0	-33.3	No Change	From Expansion	1

Table 5: Details of Employment Level PMI

Index	Jan 2020 Index	Feb 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	57.3	56.4	-0.9	Growing	Slower	34
Cement	50.0	50.0	0.0	No Change	Flat	3
Chemical & pharmaceutical products	53.9	56.4	2.5	Growing	Faster	7
Electrical equipment	40.0	40.0	0.0	Declining	Flat	2
Fabricated metal products	51.4	56.6	5.2	Growing	Faster	5
Food, beverage & tobacco products	61.7	59.6	-2.1	Growing	Slower	22
Furniture & related products	59.4	62.9	3.5	Growing	Faster	8
Nonmetallic mineral products	52.6	58.8	6.2	Growing	Faster	4
Paper products	56.3	66.7	10.4	Growing	Faster	2
Petroleum & coal products	83.3	50.0	-33.3	No Change	From Expansion	1
Plastics & rubber products	70.5	61.9	-8.6	Growing	Slower	6
Primary metal	60.0	57.1	-2.9	Growing	Slower	3
Printing & related support activities	42.3	38.0	-4.3	Declining	Faster	3
Textile, apparel, leather & footwear	56.5	50.0	-6.5	No Change	From Expansion	1
Transportation equipment	66.7	83.3	16.6	Growing	Faster	2

Table 6: Details of Raw Materials Inventory PMI

Index	Jan 2020 Index	Feb 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
RAW MATERIALS INVENTORY PMI	60.7	58.5	-2.2	Growing	Slower	35
Cement	40.0	37.5	-2.5	Declining	Faster	2
Chemical & pharmaceutical products	59.2	61.5	2.3	Growing	Faster	4
Electrical equipment	70.0	50.0	-20.0	No Change	From Expansion	1
Fabricated metal products	59.5	50.0	-9.5	No Change	From Expansion	1
Food, beverage & tobacco products	62.1	60.6	-1.5	Growing	Slower	41
Furniture & related products	64.1	58.1	-6.0	Growing	Slower	7
Nonmetallic mineral products	55.3	70.6	15.3	Growing	Faster	4
Paper products	50.0	50.0	0.0	No Change	Flat	2
Petroleum & coal products	83.3	100.0	16.7	Growing	Faster	9
Plastics & rubber products	63.6	57.1	-6.5	Growing	Slower	4
Primary metal	75.0	50.0	-25.0	No Change	From Expansion	1
Printing & related support activities	46.2	52.0	5.8	Growing	From Contraction	1
Textile, apparel, leather & footwear	70.5	59.3	-11.2	Growing	Slower	7
Transportation equipment	50.0	50.0	0.0	No Change	Flat	2

Table 7: Non-Manufacturing at a Glance

Index	Jan 2020 Index	Feb 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
Composite PMI \1	59.6	58.6	-1.0	Growing	Slower	34
Business Activity	59.8	59.3	-0.5	Growing	Slower	35
Level of new orders/customers/incoming business	59.4	58.8	-0.6	Growing	Slower	35
Employment Level	58.9	57.8	-1.1	Growing	Slower	34
Inventories	60.4	58.6	-1.8	Growing	Slower	34
Average price of Inputs (volume weighted)	51.2	52.1	0.9	Growing	Faster	52
Level of outstanding business/ Backlog of work	43.2	44.1	0.9	Declining	Slower	68
New Exports orders	41.3	44.6	3.3	Declining	Slower	68
Imports	42.3	42.9	0.6	Declining	Slower	68
Inventory (sentiments)	45.3	46.0	0.7	Declining	Slower	68
Non-manufacturing sub-sectors						
Accommodation & food services	60.6	57.6	-3.0	Growing	Slower	20
Agriculture	59.1	50.7	-8.4	Growing	Slower	45
Arts, Entertainment & Recreation	54.2	57.5	3.3	Growing	Faster	4
Construction	62.1	54.9	-7.2	Growing	Slower	17
Educational services	60.4	57.1	-3.3	Growing	Slower	20
Electricity, gas, steam & air conditioning supply	62.5	57.1	-5.4	Growing	Slower	16
Finance & insurance	60.0	60.2	0.2	Growing	Faster	36
Health care & social assistance	58.7	61.2	2.5	Growing	Faster	34
Information & communication	53.7	62.9	9.2	Growing	Faster	35
Management of companies	62.5	66.7	4.2	Growing	Faster	4
Professional, scientific, & technical services	60.4	49.5	-10.9	Declining	From Expansion	1
Real estate rental & leasing	62.6	57.5	-5.1	Growing	Slower	24
Repair, Maintenance/Washing Of Motor Vehicles...	69.7	76.9	7.2	Growing	Faster	21
Transportation & warehousing	52.4	62.7	10.3	Growing	Faster	9
Utilities	65.6	75.0	9.4	Growing	Faster	6
Water supply, sewage & waste management	55.0	65.6	10.6	Growing	Faster	5
Wholesale/Retail trade	57.7	57.7	0.0	Growing	Flat	33

\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	Jan 2020 Index	Feb 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
BUSINESS ACTIVITY PMI	59.8	59.3	-0.5	Growing	Slower	35
Accommodation & food services	59.1	60.5	1.4	Growing	Faster	20
Agriculture	57.7	51.5	-6.2	Growing	Slower	8
Arts, Entertainment & Recreation	58.3	70.0	11.7	Growing	Faster	10
Construction	62.1	53.2	-8.9	Growing	Slower	16
Educational services	67.4	57.6	-9.8	Growing	Slower	30
Electricity, gas, steam & air conditioning supply	56.3	60.7	4.4	Growing	Faster	4
Finance & insurance	62.4	56.6	-5.8	Growing	Slower	35
Health care & social assistance	59.0	61.1	2.1	Growing	Faster	17
Information & communication	46.4	66.7	20.3	Growing	From Contraction	1
Management of companies	50.0	100.0	50.0	Growing	From No Change	1
Professional, scientific, & technical services	65.2	57.4	-7.8	Growing	Slower	4
Real estate rental & leasing	66.2	54.1	-12.1	Growing	Slower	5
Repair, Maintenance/Washing Of Motor Vehicles.	75.0	80.8	5.8	Growing	Faster	17
Transportation & warehousing	57.9	61.8	3.9	Growing	Faster	9
Utilities	50.0	75.0	25.0	Growing	From No Change	1
Water supply, sewage & waste management	55.0	62.5	7.5	Growing	Faster	3
Wholesale/Retail trade	55.5	57.4	1.9	Growing	Faster	20

Table 9: New Orders at a Glance

Index	Jan 2020 Index	Feb 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	59.4	58.8	-0.6	Growing	Slower	35
Accommodation & food services	60.2	58.9	-1.3	Growing	Slower	20
Agriculture	61.8	47.1	-14.7	Declining	From Expansion	1
Arts, Entertainment & Recreation	50.0	60.0	10.0	Growing	From No Change	1
Construction	56.1	55.0	-1.1	Growing	Slower	16
Educational services	64.4	53.3	-11.1	Growing	Slower	20
Electricity, gas, steam & air conditioning supply	68.8	57.1	-11.7	Growing	Slower	4
Finance & insurance	59.5	63.9	4.4	Growing	Faster	36
Health care & social assistance	60.4	60.4	0.0	Growing	Flat	4
Information & communication	51.8	60.6	8.8	Growing	Faster	3
Management of companies	50.0	83.3	33.3	Growing	From No Change	1
Professional, scientific, & technical services	58.7	51.9	-6.8	Growing	Slower	5
Real estate rental & leasing	55.4	59.5	4.1	Growing	Faster	16
Repair, Maintenance/Washing Of Motor Vehicles..	71.9	80.8	8.9	Growing	Faster	17
Transportation & warehousing	36.8	64.7	27.9	Growing	From Contraction	1
Utilities	87.5	66.7	-20.8	Growing	Slower	3
Water supply, sewage & waste management	55.0	75.0	20.0	Growing	Faster	3
Wholesale/Retail trade	60.4	54.7	-5.7	Growing	Slower	33

Table 10: Employment at a Glance

Index	Jan 2020 Index	Feb 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	58.9	57.8	-1.1	Growing	Slower	34
Accommodation & food services	59.8	55.1	-4.7	Growing	Slower	18
Agriculture	60.3	54.4	-5.9	Growing	Slower	34
Arts, Entertainment & Recreation	50.0	40.0	-10.0	Declining	From No Change	1
Construction	63.6	56.5	-7.1	Growing	Slower	17
Educational services	58.5	55.4	-3.1	Growing	Slower	20
Electricity, gas, steam & air conditioning supply	59.4	53.6	-5.8	Growing	Slower	3
Finance & insurance	60.6	61.5	0.9	Growing	Faster	33
Health care & social assistance	53.5	61.8	8.3	Growing	Faster	33
Information & communication	57.1	65.2	8.1	Growing	Faster	17
Management of companies	83.3	50.0	-33.3	No Change	From Expansion	1
Professional, scientific, & technical services	58.7	44.4	-14.3	Declining	From Expansion	1
Real estate rental & leasing	60.8	56.8	-4.0	Growing	Slower	5
Repair, Maintenance/Washing Of Motor Vehicles..	68.8	61.5	-7.3	Growing	Slower	10
Transportation & warehousing	50.0	61.8	11.8	Growing	From No Change	1
Utilities	62.5	75.0	12.5	Growing	Faster	6
Water supply, sewage & waste management	45.0	62.5	17.5	Growing	From Contraction	1
Wholesale/Retail trade	58.8	58.4	-0.4	Growing	Slower	21

Table 11: Inventory at a Glance

Index	Jan 2020 Index	Feb 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
INVENTORY PMI	60.4	58.6	-1.8	Growing	Slower	34
Accommodation & food services	63.2	56.0	-7.2	Growing	Slower	20
Agriculture	56.6	50.0	-6.6	No Change	From Expansion	1
Arts, Entertainment & Recreation	58.3	60.0	1.7	Growing	Faster	2
Construction	66.7	54.8	-11.9	Growing	Slower	20
Educational services	51.1	62.0	10.9	Growing	Faster	5
Electricity, gas, steam & air conditioning supply	65.6	57.1	-8.5	Growing	Slower	3
Finance & insurance	57.5	58.7	1.2	Growing	Faster	25
Health care & social assistance	62.0	61.4	-0.6	Growing	Slower	34
Information & communication	59.3	59.4	0.1	Growing	Faster	22
Management of companies	66.7	33.3	-33.4	Declining	From Expansion	1
Professional, scientific, & technical services	59.1	44.2	-14.9	Declining	From Expansion	1
Real estate rental & leasing	68.1	59.7	-8.4	Growing	Slower	24
Repair, Maintenance/Washing Of Motor Vehicles	63.3	84.6	21.3	Growing	Faster	7
Transportation & warehousing	64.7	62.5	-2.2	Growing	Slower	9
Utilities	62.5	83.3	20.8	Growing	Faster	6
Water supply, sewage & waste management	65.0	62.5	-2.5	Growing	Slower	5
Wholesale/Retail trade	56.3	60.1	3.8	Growing	Faster	31

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	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	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
Dec '19	60.8	61.8	61.5	60.5	58	62.4	39.1	51.9	59.2	57	45.5	52.8
Jan '20	59.2	59.6	59.7	59.1	57.3	60.7	37.0	55.3	63.5	54.8	42.6	51.0
Feb '20	58.3	58.9	59.1	58.4	56.4	58.5	41.9	53.7	61.4	55.5	43.3	51.8

Table 13: Non-Manufacturing PMI Data Series

Month	COMPOSITE PMI	Business Activity	New orders	Employment Level	Inventory	Average Input Price	Backlog of Work	New Exports Orders	Imports	Inventories (sentiment)
Jul '14	55.0	58.9	55.9	50.2	55.2	54.0	46.2	44.0	47.3	47.8
Aug '14	58.9	60.6	59.8	58.3	57.0	56.1	47.0	46.1	46.4	48.1
Sep '14	54.7	57.1	57.5	49.9	54.3	52.8	46.2	40.7	45.2	47.6
Oct '14	57.3	59.6	59.4	53.9	56.4	53.3	46.4	40.8	44.9	43.8
Nov '14	59.6	62.5	63.6	57.9	54.6	57.3	49.6	45.2	47.5	48.1
Dec '14	53.8	56.2	56.0	51.4	51.5	54.5	45.6	43.6	46.5	43.8
Jan '15	50.6	48.8	50.4	51.2	51.9	48.8	43.2	41.1	44.3	47.0
Feb '15	54.0	54.2	54.7	52.5	54.5	54.1	46.0	43.0	44.6	46.1
Mar '15	48.6	49.7	51.1	45.6	48.0	49.8	46.5	39.9	44.2	40.2
Apr '15	53.7	58.2	56.8	49.1	50.8	51.5	46.6	41.1	44.5	43.0
May '15	51.7	52.9	53.1	49.7	51.1	51.3	44.1	37.2	39.1	44.3
Jun '15	50.1	51.5	50.3	46.4	52.0	48.5	44.4	36.9	40.4	42.7
Jul '15	50.0	50.4	51.4	48.6	49.5	50.3	43.8	39.1	39.2	44.0
Aug '15	50.7	52.3	52.4	48.0	50.1	50.7	43.0	39.8	38.3	44.0
Sep '15	50.1	52.1	52.3	47.0	49.1	48.7	44.5	42.9	41.4	45.9
Oct '15	51.9	54.2	54.1	49.3	50.1	49.9	43.9	40.3	42.4	45.2
Nov '15	49.6	52.9	51.6	45.6	48.5	51.8	42.8	37.7	39.0	41.8
Dec '15	53.4	55.9	56.4	50.0	51.5	54.7	47.0	41.9	42.7	47.2
Jan '16	46.9	46.2	46.4	47.0	47.9	57.3	44.3	36.2	39.0	41.6
Feb '16	44.3	43.7	42.0	44.5	47.1	53.6	39.6	37.5	36.6	43.6
Mar '16	45.4	46.3	44.7	43.9	46.5	58.5	43.8	34.3	35.0	41.1
Apr '16	44.3	44.2	42.2	43.3	47.6	62.2	43.1	31.8	33.1	39.8
May '16	44.3	44.3	41.3	44.6	46.9	62.9	38.1	33.2	35.0	40.3
Jun '16	42.3	40.2	39.6	42.5	47.1	60.7	39.6	33.2	34.7	38.5
Jul '16	43.2	42.8	42.3	41.9	45.8	60.4	38.6	30.0	32.7	38.0
Aug '16	43.7	43.6	42.0	41.4	47.7	60.8	39.4	32.9	34.2	39.4
Sep '16	41.0	39.9	40.0	40.3	43.9	63.1	39.6	28.6	30.2	37.9
Oct '16	43.4	43.0	42.7	41.5	46.4	65.3	40.9	32.8	33.8	38.7
Nov '16	42.8	43.0	42.3	40.2	45.5	66.8	42.4	30.8	34.0	41.1
Dec '16	47.1	48.2	46.9	43.8	49.5	64.0	41.5	33.8	35.5	41.6
Jan '17	49.4	50.6	49.4	45.6	52.0	65.6	43.6	32.5	36.1	45.5
Feb '17	44.5	45.4	44.9	42.6	44.9	65.4	42.9	33.4	34.5	38.7
Mar '17	47.1	49.8	46.4	44.0	48.0	62.1	42.7	33.1	34.5	40.6
Apr '17	49.5	53.3	50.5	45.5	48.6	63.1	41.6	29.2	33.2	41.1
May '17	52.7	56.2	53.2	50.2	51.4	62.7	45.3	31.6	34.1	43.6
June '17	54.2	57.0	54.6	53.4	51.8	58.6	40.5	30.3	33.5	42.7
July '17	54.4	56.8	55.1	54.0	51.9	58.1	42.9	32.0	36.8	41.5
Aug '17	54.1	56.1	53.5	54.4	52.3	54.5	42.8	34.5	34.8	42.0
Sep '17	54.9	56.8	55.4	54.7	52.9	56.9	42.2	31.2	35.9	44.2
Oct '17	55.3	57.5	55.7	54.4	53.4	56.4	41.4	29.6	35.4	38.9
Nov '17	57.6	59.4	58.4	54.6	58.0	55.7	43.6	28.8	33.3	40.6
Dec '17	62.1	67.4	62.2	55.7	62.9	56.1	44.6	34.6	39.1	40.3
Jan '18	58.5	61.3	58.2	55.1	59.5	56.9	41.3	31.0	35.1	42.8
Feb '18	56.1	55.6	53.7	55.3	59.8	52.8	41.2	34.7	39.1	40.3
Mar '18	57.2	58.7	55.8	55.1	59.2	50.3	42.9	39.0	38.5	44.1
Apr '18	57.5	58.8	56.4	55.3	59.5	50.3	41.5	34.2	34.9	45.0
May '18	57.3	58.7	55.9	55.6	59.2	50.8	40.6	36.4	38.4	46.2
June '18	57.5	59.1	56.4	55.9	58.5	52.2	44.0	33.2	40.1	42.4
July '18	57.7	59.6	56.1	56.2	59.1	52.1	43.1	42.1	40.5	45.0
Aug '18	58.0	59.3	56.9	56.7	58.9	50.8	43.3	40.1	40.3	44.8
Sep '18	56.5	58.1	55.8	55.4	56.8	50.2	41.5	40.3	41.3	45.7
Oct '18	57.0	58.3	56.4	55.7	57.6	50.7	42.8	39.7	42.2	45.5
Nov '18	58.4	60.4	57.5	56.2	59.6	52.6	42.0	38.7	39.4	45.9
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
Dec '19	62.1	62.6	61.9	60.8	63.1	56	42.5	43.2	41.8	43.5
Jan '20	59.6	59.8	59.4	58.9	60.4	51.2	43.2	41.3	42.3	45.3
Feb '20	58.6	59.3	58.8	57.8	58.6	52.1	44.1	44.6	42.9	46.0