

Central Bank of Nigeria



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

Statistics Department

March 2020

PURCHASING MANAGERS' INDEX (PMI) MARCH 2020 REPORT

1.0 Introduction

The March 2020 PMI survey was conducted by the Statistics Department of the Central Bank of Nigeria during the period March 9-13, 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.

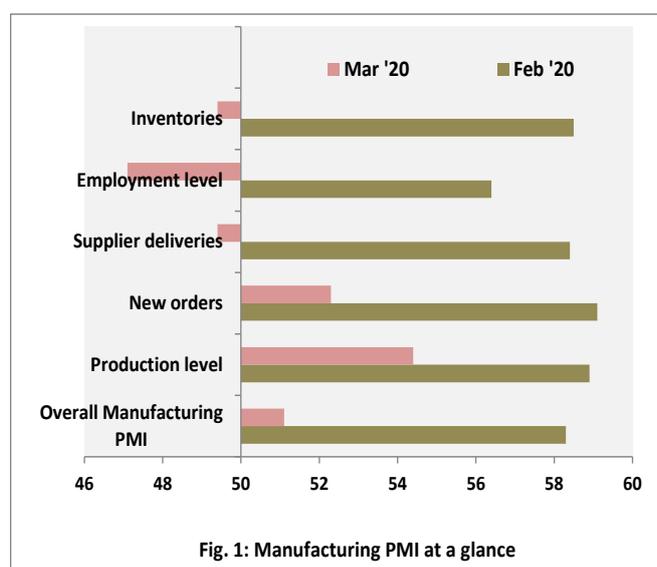
1.1 Data and Method of Presentation

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 and new orders grew at a slower rate, while supplier delivery time, employment level and raw materials inventories declined in March 2020



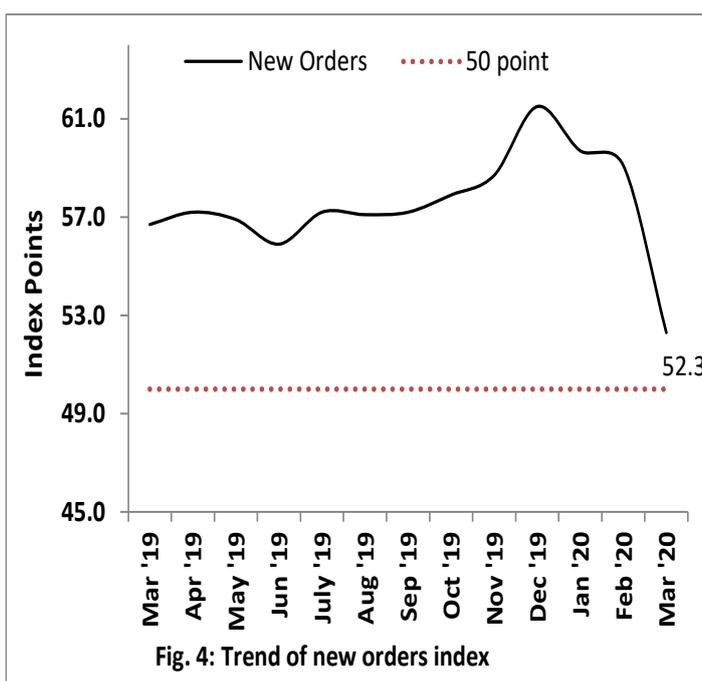
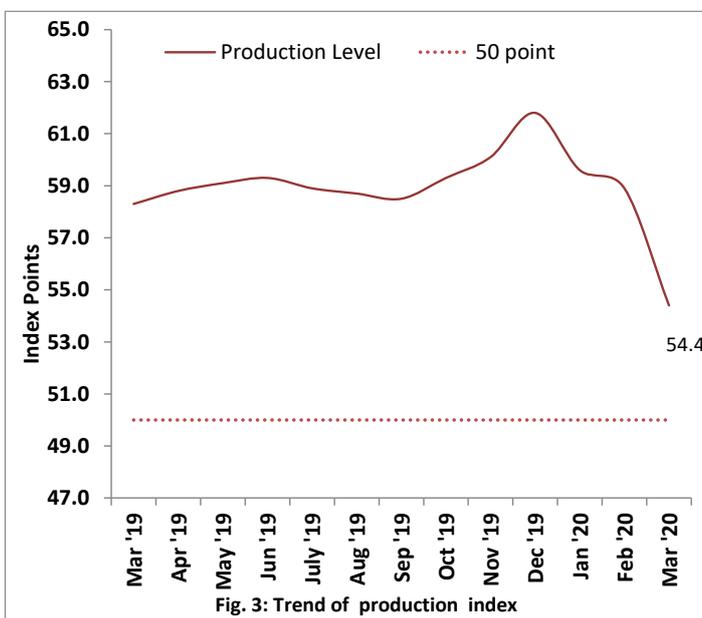
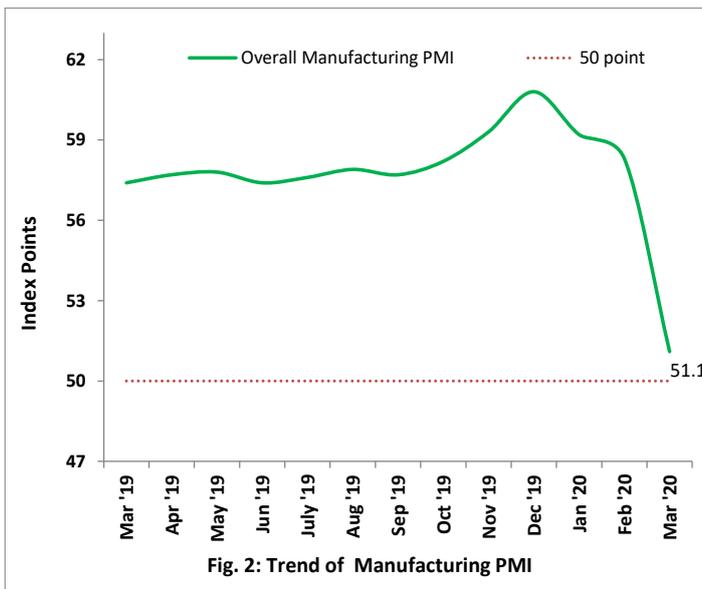
The *Manufacturing PMI* in the month of February stood at 51.1 index points, indicating expansion in the manufacturing sector for the thirty-sixth consecutive month (Fig. 2 and Table 1). The index grew at a slower rate when compared to the index in February. Of the 14 surveyed subsectors, 7 reported growth (above 50% threshold) in the review month in the following order: transportation equipment; petroleum & coal products; furniture & related products; food, beverage & tobacco products; cement; fabricated metal products and plastics & rubber products. However, electrical equipment; primary metal; nonmetallic mineral products; paper products; textile, apparel, leather and footwear; printing & related support activities and chemical & pharmaceutical products subsectors all recorded declines in the review month (Fig. 2 and Table 1).

2.1 Production Level

At 54.4 points, the production level index for the manufacturing sector grew for the thirty-seventh consecutive month in March 2020. The index however indicated slower growth in the current month, when compared to its level in February 2020. Seven of the 14 manufacturing subsectors recorded increased production level, while 7 subsectors recorded declines in production (Fig. 3 and Table 2).

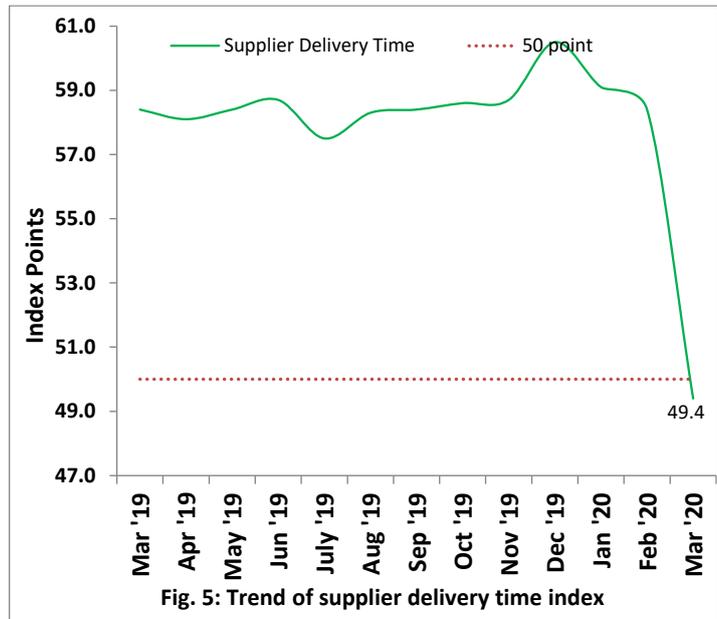
2.2 New Orders

At 52.3 points, the new orders index grew for the thirty-sixth consecutive month, indicating increases in new orders in March 2020. The index grew at a slower rate, when compared to its level in February 2020. Five subsectors reported growth, 2 remained unchanged while 7 recorded declines in the review month (Fig. 4 and Table 3).



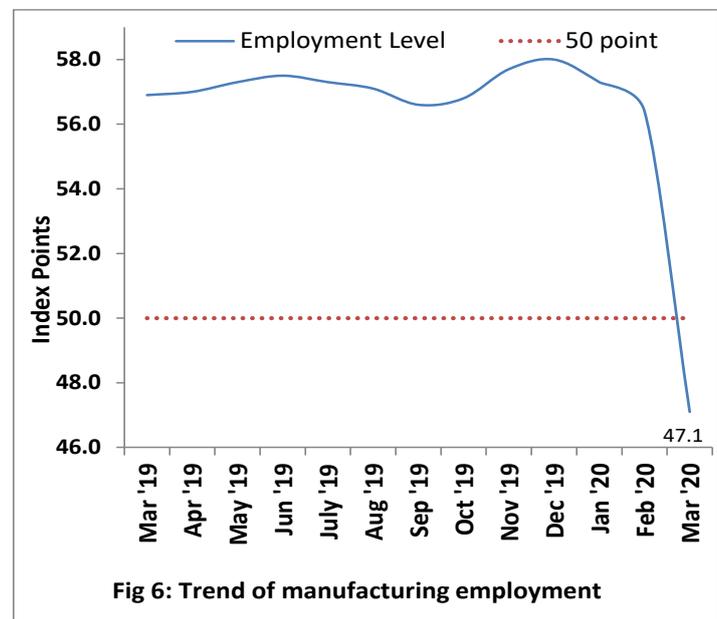
2.3 Supplier Delivery Time

The manufacturing supplier delivery time index stood at 49.4 points in March 2020, indicating contraction in supplier delivery time. The index recorded declines for the first time after thirty-three consecutive months of recorded growth. Five of the 14 subsectors recorded improved suppliers' delivery time, 4 subsectors reported no change while 5 recorded slower delivery time in March 2020 (Fig. 5 and Table 4).



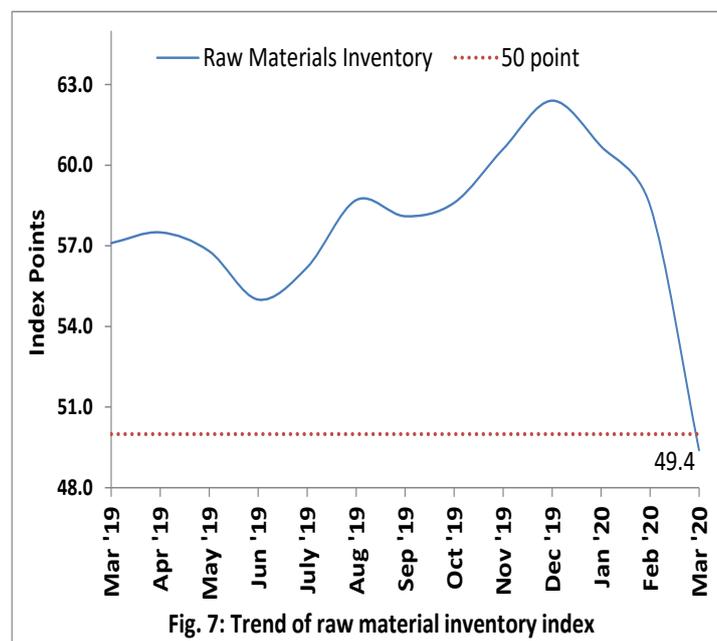
2.4 Employment Level

The employment level index for March 2020 stood at 47.1 points, indicating declines in employment level for the first time after recorded growth for thirty-four consecutive months. Of the 14 subsectors, 3 reported increased employment level, 1 subsectors remain unchanged, while the remaining ten subsectors recorded lower employment level in the review month (Fig. 6 and Table 5).



2.5 Raw material Inventories

The manufacturing sector inventories index contracted for the first time in March 2020. At 49.4 points, the index dipped when compared to its level in February 2020. Three of the 14 subsectors recorded growth, 3 subsectors reported unchanged inventories, while 8 subsectors reported lower raw material inventories in the review month (Fig. 7 and Table 6).



3.0 Non-Manufacturing PMI Report

Business activity grew at a slower rate, while new orders, employment level and inventories contracted in March 2020

The *composite PMI* for the *non-manufacturing sector* stood at 49.2 points in March 2020, indicating contraction in Non-manufacturing PMI for the first time after thirty-four consecutive months of expansion. The index declined slightly below the turning point of 50 points in the review month. Of the 17 subsectors surveyed, 7 subsectors recorded growth (above the 50% threshold) in the following order: management of companies; arts, entertainment & recreation; repair, maintenance/washing of motor vehicles...; real estate, rental & leasing; information & communication; water supply, sewage & waste management; health care & social assistance. Wholesale trade and utilities remained unchanged, while transportation & warehousing; accommodation & food services; agriculture; construction; educational services; electricity, gas, steam & air conditioning supply; finance & insurance; professional, scientific, & technical services subsectors recorded declines in the review period (Fig. 9 and Table 7).

3.1 Business Activity

At 52.2 points, the business activity index grew for the thirty-sixth consecutive month, indicating expansion in non-manufacturing business activity in March 2020. Ten of the 17 surveyed subsectors recorded growth in business activity, 1 remained unchanged while 6 subsectors declined in the review month (Fig 10 Table 8).

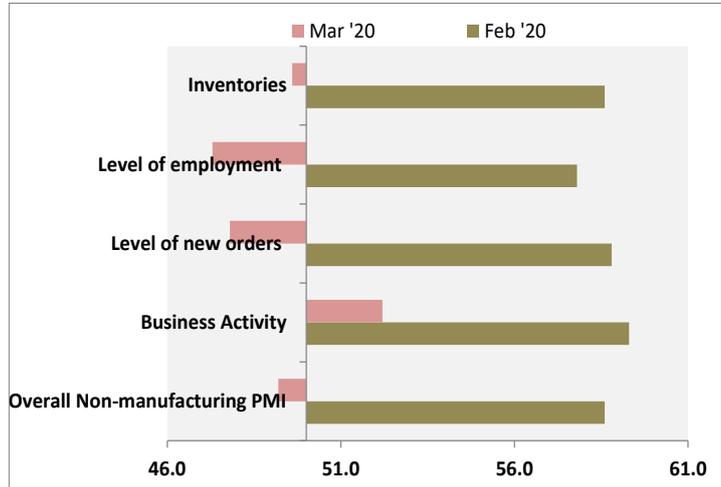


Fig. 8: Non-Manufacturing PMI at a glance

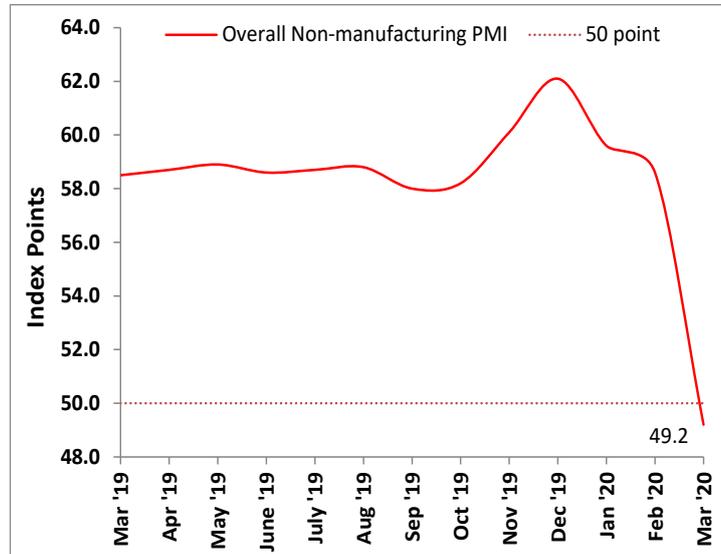


Fig. 9: Trend of Non-manufacturing PMI

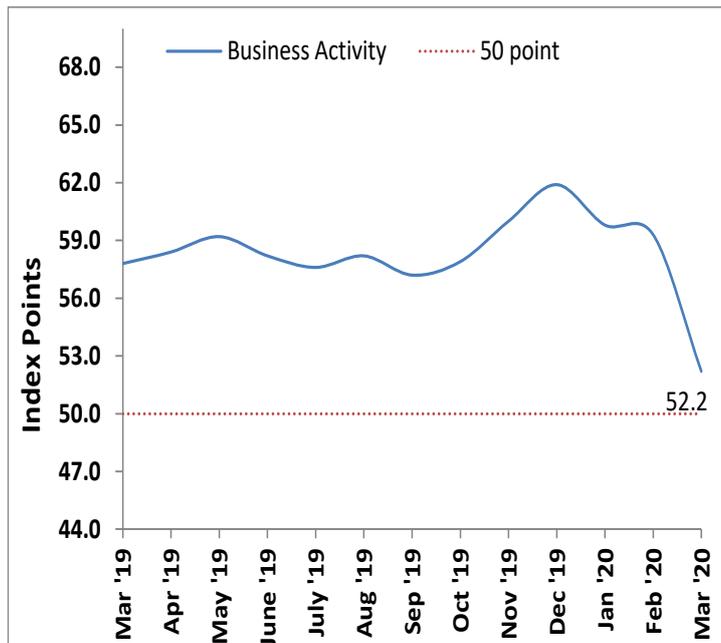


Fig. 10: Trend of business activities index

3.2 New Orders

At 47.8 points, new orders index declined for the first time in March 2020. Of the 17 surveyed subsectors, 6 recorded growth, 2 remained unchanged while 9 subsectors recorded declines in new orders during the review period (Fig 11 Table 9).

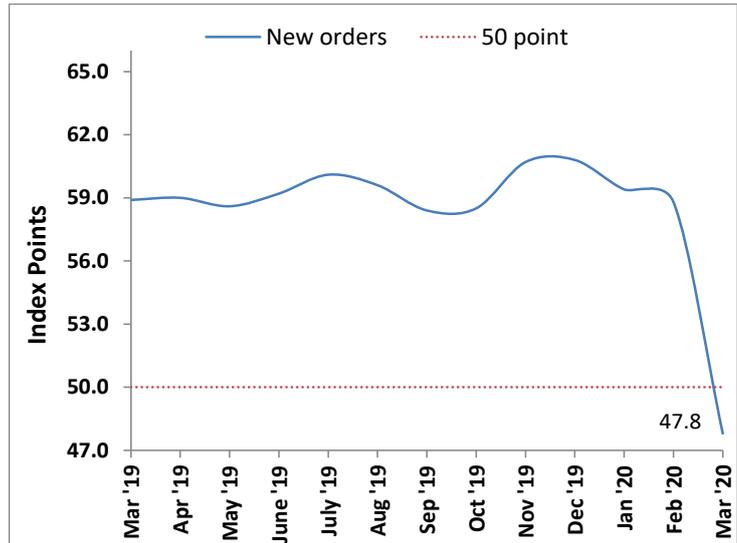


Fig. 11: Trend of new orders index

3.3 Employment Level

The employment level Index for the non-manufacturing sector stood at 47.3 points, indicating decrease in employment level in the review month. Of the 17 surveyed subsectors, 5 recorded growth in employment level in the review period, 2 subsectors recorded no change while 10 subsectors recorded declines in the employment level (Fig 12 Table 10).

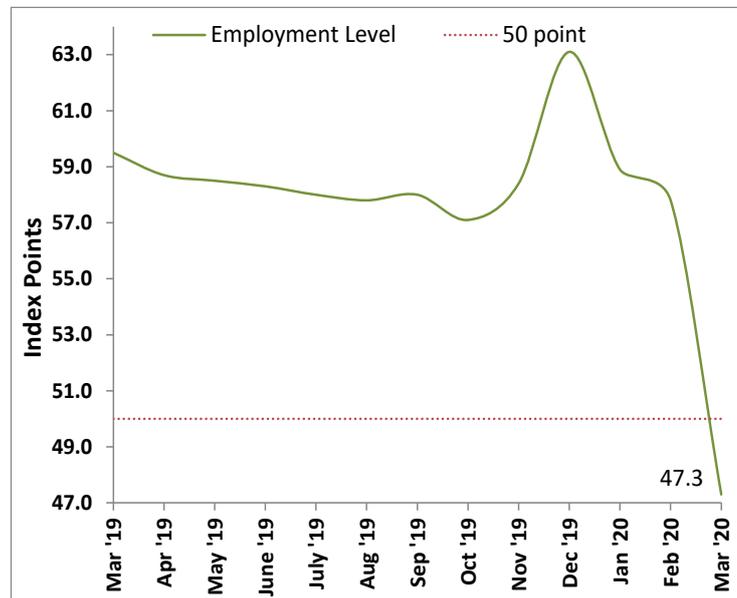


Fig. 12: Trend of non-manufacturing employment

3.4 Non-manufacturing Inventory

At 49.6 points, non-manufacturing inventory index dipped after thirty-four consecutive months of recorded growth. This indicates decrease in inventories in the review period. From the surveyed subsectors, nine of the 17 subsectors recorded growth in inventories in March 2020, 3 reported no change, while 5 subsectors recorded declines in inventories in the review period (Fig 13, Table 11).

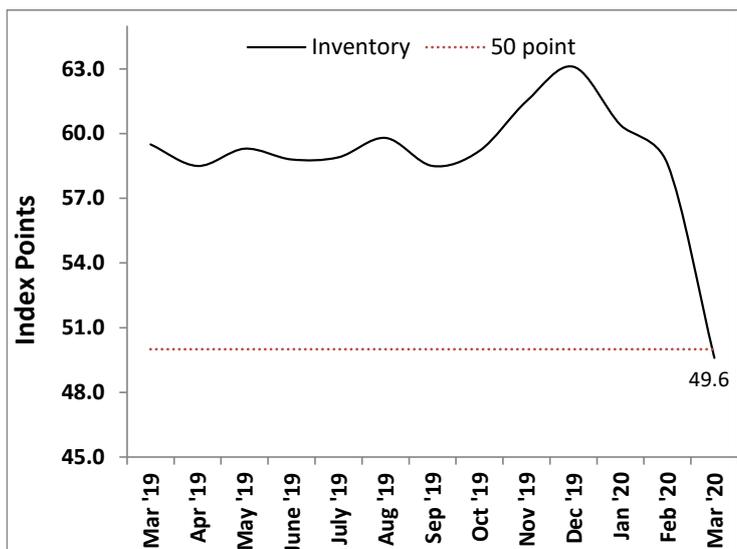


Fig. 13: Trend of non-manufacturing inventory index

APPENDICES

Table 1: Details of Overall Manufacturing PMI

Index	Feb 2020 Index*	Mar 2020 Index*	Difference	Direction	Rate of Change	Trend** (Months)
Composite PMI \1	58.3	51.1	-7.2	Growing	Slower	36
Production level	58.9	54.4	-4.5	Growing	Slower	37
New orders	59.1	52.3	-6.8	Growing	Slower	36
Supplier delivery time	58.4	49.4	-9.0	Declining	From Expansion	1
Employment level	56.4	47.1	-9.3	Declining	From Expansion	1
Raw materials/WIP Inventory	58.5	49.4	-9.1	Declining	From Expansion	1
New Export Orders	41.9	42.3	0.4	Declining	Slower	61
Output Prices	53.7	53.0	-0.7	Growing	Slower	51
Input Prices	61.4	62.6	1.2	Growing	Faster	69
Quantity of Purchases	55.5	55.6	0.1	Growing	Faster	18
Outstanding Business/Backlog of Work	43.3	41.2	-2.1	Declining	Faster	28
Stock of Finished Goods	51.8	50.3	-1.5	Growing	Slower	24
Manufacturing Sub-Sectors						
Cement	62.5	57.0	-5.5	Growing	Slower	18
Chemical & pharmaceutical products	57.8	47.3	-10.5	Declining	From Expansion	1
Electrical equipment	54.0	34.0	-20.0	Declining	From Expansion	1
Fabricated metal products	58.8	52.1	-6.7	Growing	Slower	21
Food, beverage & tobacco products	59.7	57.1	-2.6	Growing	Slower	42
Furniture & related products	60.6	57.2	-3.4	Growing	Slower	22
Nonmetallic mineral products	65.3	40.7	-24.6	Declining	From Expansion	1
Paper products	64.2	42.7	-21.5	Declining	From Expansion	1
Petroleum & coal products	68.3	60.8	-7.5	Growing	Slower	12
Plastics & rubber products	56.3	50.6	-5.7	Growing	Slower	20
Primary metal	47.1	37.3	-9.8	Declining	Faster	9
Printing & related support activities	45.9	44.5	-1.4	Declining	Faster	2
Textile, apparel, leather & footwear	61.3	43.2	-18.1	Declining	From Expansion	1
Transportation equipment	79.2	65.8	-13.4	Growing	Slower	19

\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	Feb 2020 Index	Mar 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
PRODUCTION PMI	58.9	54.4	-4.5	Growing	Slower	37
Cement	75.0	70.0	-5.0	Growing	Slower	2
Chemical & pharmaceutical products	57.7	43.9	-13.8	Declining	From Expansion	1
Electrical equipment	50.0	20.0	-30.0	Declining	From No Change	1
Fabricated metal products	59.5	57.9	-1.6	Growing	Slower	13
Food, beverage & tobacco products	60.1	61.6	1.5	Growing	Faster	42
Furniture & related products	64.5	69.0	4.5	Growing	Faster	22
Nonmetallic mineral products	61.8	33.3	-28.5	Declining	From Expansion	1
Paper products	66.7	45.8	-20.9	Declining	From Expansion	1
Petroleum & coal products	83.3	66.7	-16.6	Growing	Slower	12
Plastics & rubber products	50.0	58.3	8.3	Growing	From No Change	1
Primary metal	50.0	35.7	-14.3	Declining	From No Change	1
Printing & related support activities	40.0	47.6	7.6	Declining	Slower	3
Textile, apparel, leather & footwear	70.4	41.7	-28.7	Declining	From Expansion	1
Transportation equipment	100.0	66.7	-33.3	Growing	Slower	7

Table 3: Details of New Orders PMI

Index	Feb 2020 Index	Mar 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	59.1	52.3	-6.8	Growing	Slower	36
Cement	75.0	70.0	-5.0	Growing	Slower	2
Chemical & pharmaceutical products	60.3	50.0	-10.3	No Change	From Expansion	1
Electrical equipment	60.0	30.0	-30.0	Declining	From Expansion	1
Fabricated metal products	64.5	52.6	-11.9	Growing	Slower	10
Food, beverage & tobacco products	59.6	59.9	0.3	Growing	Faster	42
Furniture & related products	61.3	63.8	2.5	Growing	Faster	10
Nonmetallic mineral products	67.6	40.0	-27.6	Declining	From Expansion	1
Paper products	66.7	41.7	-25.0	Declining	From Expansion	1
Petroleum & coal products	66.7	50.0	-16.7	No Change	From Expansion	1
Plastics & rubber products	47.6	41.7	-5.9	Declining	Faster	2
Primary metal	35.7	37.5	1.8	Declining	Slower	2
Printing & related support activities	48.0	45.2	-2.8	Declining	Faster	3
Textile, apparel, leather & footwear	63.0	43.8	-19.2	Declining	From Expansion	1
Transportation equipment	83.3	66.7	-16.6	Growing	Slower	5

Table 4: Details of Supplier Delivery Time PMI

Index	Feb 2020 Index	Mar 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
SUPPLIER DELIVERY TIME PMI	58.4	49.4	-9.0	Declining	From Expansion	1
Cement	50.0	30.0	-20.0	Declining	From No Change	1
Chemical & pharmaceutical products	52.6	52.4	-0.2	Growing	Slower	9
Electrical equipment	70.0	60.0	-10.0	Growing	Slower	2
Fabricated metal products	55.3	50.0	-5.3	No Change	From Expansion	1
Food, beverage & tobacco products	58.7	49.1	-9.6	Declining	From Expansion	1
Furniture & related products	51.6	39.7	-11.9	Declining	From Expansion	1
Nonmetallic mineral products	71.9	53.3	-18.6	Growing	Slower	23
Paper products	61.1	50.0	-11.1	No Change	From Expansion	1
Petroleum & coal products	50.0	50.0	0.0	No Change	Flat	2
Plastics & rubber products	76.2	63.9	-12.3	Growing	Slower	7
Primary metal	50.0	43.8	-6.2	Declining	From No Change	1
Printing & related support activities	58.0	52.4	-5.6	Growing	Slower	9
Textile, apparel, leather & footwear	59.3	43.8	-15.5	Declining	From Expansion	1
Transportation equipment	50.0	50.0	0.0	No Change	Flat	2

Table 5: Details of Employment Level PMI

Index	Feb 2020 Index	Mar 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	56.4	47.1	-9.3	Declining	From Expansion	1
Cement	50.0	50.0	0.0	No Change	Flat	4
Chemical & pharmaceutical products	56.4	42.7	-13.7	Declining	From Expansion	1
Electrical equipment	40.0	40.0	0.0	Declining	Flat	3
Fabricated metal products	56.6	48.7	-7.9	Declining	From Expansion	1
Food, beverage & tobacco products	59.6	54.2	-5.4	Growing	Slower	23
Furniture & related products	62.9	48.3	-14.6	Declining	From Expansion	1
Nonmetallic mineral products	58.8	46.7	-12.1	Declining	From Expansion	1
Paper products	66.7	37.5	-29.2	Declining	From Expansion	1
Petroleum & coal products	50.0	66.7	16.7	Growing	From No Change	1
Plastics & rubber products	61.9	44.4	-17.5	Declining	From Expansion	1
Primary metal	57.1	31.3	-25.8	Declining	From Expansion	1
Printing & related support activities	38.0	31.0	-7.0	Declining	Faster	4
Textile, apparel, leather & footwear	50.0	41.7	-8.3	Declining	From No Change	1
Transportation equipment	83.3	83.3	0.0	Growing	Flat	3

Table 6: Details of Raw Materials Inventory PMI

Index	Feb 2020 Index	Mar 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
RAW MATERIALS INVENTORY PMI	58.5	49.4	-9.1	Declining	From Expansion	1
Cement	37.5	40.0	2.5	Declining	Slower	3
Chemical & pharmaceutical products	61.5	48.8	-12.7	Declining	From Expansion	1
Electrical equipment	50.0	30.0	-20.0	Declining	From No Change	1
Fabricated metal products	50.0	46.2	-3.8	Declining	From No Change	1
Food, beverage & tobacco products	60.6	55.1	-5.5	Growing	Slower	42
Furniture & related products	58.1	51.7	-6.4	Growing	Slower	8
Nonmetallic mineral products	70.6	30.0	-40.6	Declining	From Expansion	1
Paper products	50.0	37.5	-12.5	Declining	From No Change	1
Petroleum & coal products	100.0	83.3	-16.7	Growing	Slower	10
Plastics & rubber products	57.1	50.0	-7.1	No Change	From Expansion	1
Primary metal	50.0	42.9	-7.1	Declining	From No Change	1
Printing & related support activities	52.0	50.0	-2.0	No Change	From Expansion	1
Textile, apparel, leather & footwear	59.3	47.9	-11.4	Declining	From Expansion	1
Transportation equipment	50.0	50.0	0.0	No Change	Flat	3

Table 7: Non-Manufacturing at a Glance

Index	Feb 2020 Index	Mar 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
Composite PMI \1	58.6	49.2	-9.4	Declining	From Expansion	1
Business Activity	59.3	52.2	-7.1	Growing	Slower	36
Level of new orders/customers/incoming business	58.8	47.8	-11.0	Declining	From Expansion	1
Employment Level	57.8	47.3	-10.5	Declining	From Expansion	1
Inventories	58.6	49.6	-9.0	Declining	From Expansion	1
Average price of Inputs (volume weighted)	52.1	51.2	-0.9	Growing	Slower	53
Level of outstanding business/ Backlog of work	44.1	41.6	-2.5	Declining	Faster	69
New Exports orders	44.6	36.1	-8.5	Declining	Faster	69
Imports	42.9	39.1	-3.8	Declining	Faster	69
Inventory (sentiments)	46.0	44.4	-1.6	Declining	Faster	69
Non-manufacturing sub-sectors						
Accommodation & food services	57.6	45.5	-12.1	Declining	From Expansion	1
Agriculture	50.7	46.0	-4.7	Declining	From Expansion	1
Arts, Entertainment & Recreation	57.5	68.8	11.3	Growing	Faster	5
Construction	54.9	46.5	-8.4	Declining	From Expansion	1
Educational services	57.1	47.7	-9.4	Declining	From Expansion	1
Electricity, gas, steam & air conditioning supply	57.1	48.1	-9.0	Declining	From Expansion	1
Finance & insurance	60.2	48.7	-11.5	Declining	From Expansion	1
Health care & social assistance	61.2	51.1	-10.1	Growing	Slower	35
Information & communication	62.9	51.5	-11.4	Growing	Slower	36
Management of companies	66.7	87.5	20.8	Growing	Faster	5
Professional, scientific, & technical services	49.5	49.5	0.0	Declining	Flat	2
Real estate rental & leasing	57.5	58.1	0.6	Growing	Faster	25
Repair, Maintenance/Washing Of Motor Vehicles...	76.9	61.5	-15.4	Growing	Slower	22
Transportation & warehousing	62.7	44.1	-18.6	Declining	From Expansion	1
Utilities	75.0	50.0	-25.0	No Change	From Expansion	1
Water supply, sewage & waste management	65.6	51.3	-14.3	Growing	Slower	6
Wholesale/Retail trade	57.7	50.0	-7.7	No Change	From Expansion	1

\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	Feb 2020 Index	Mar 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
BUSINESS ACTIVITY PMI	59.3	52.2	-7.1	Growing	Slower	36
Accommodation & food services	60.5	48.5	-12.0	Declining	From Expansion	1
Agriculture	51.5	48.2	-3.3	Declining	From Expansion	1
Arts, Entertainment & Recreation	70.0	75.0	5.0	Growing	Faster	11
Construction	53.2	46.6	-6.6	Declining	From Expansion	1
Educational services	57.6	44.3	-13.3	Declining	From Expansion	1
Electricity, gas, steam & air conditioning supply	60.7	53.8	-6.9	Growing	Slower	5
Finance & insurance	56.6	54.6	-2.0	Growing	Slower	36
Health care & social assistance	61.1	58.0	-3.1	Growing	Slower	18
Information & communication	66.7	54.5	-12.2	Growing	Slower	2
Management of companies	100.0	100.0	0.0	Growing	Flat	2
Professional, scientific, & technical services	57.4	56.5	-0.9	Growing	Slower	5
Real estate rental & leasing	54.1	64.9	10.8	Growing	Faster	6
Repair, Maintenance/Washing Of Motor Vehicles.	80.8	68.2	-12.6	Growing	Slower	18
Transportation & warehousing	61.8	35.7	-26.1	Declining	From Expansion	1
Utilities	75.0	37.5	-37.5	Declining	From Expansion	1
Water supply, sewage & waste management	62.5	50.0	-12.5	No Change	From Expansion	1
Wholesale/Retail trade	57.4	51.7	-5.7	Growing	Slower	21

Table 9: New Orders at a Glance

Index	Feb 2020 Index	Mar 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
NEW ORDERS PMI	58.8	47.8	-11.0	Declining	From Expansion	1
Accommodation & food services	58.9	42.6	-16.3	Declining	From Expansion	1
Agriculture	47.1	50.0	2.9	No Change	From Contraction	1
Arts, Entertainment & Recreation	60.0	75.0	15.0	Growing	Faster	2
Construction	55.0	41.1	-13.9	Declining	From Expansion	1
Educational services	53.3	48.9	-4.4	Declining	From Expansion	1
Electricity, gas, steam & air conditioning supply	57.1	42.3	-14.8	Declining	From Expansion	1
Finance & insurance	63.9	46.1	-17.8	Declining	From Expansion	1
Health care & social assistance	60.4	51.4	-9.0	Growing	Slower	5
Information & communication	60.6	54.5	-6.1	Growing	Slower	4
Management of companies	83.3	100.0	16.7	Growing	Faster	2
Professional, scientific, & technical services	51.9	50.0	-1.9	No Change	From Expansion	1
Real estate rental & leasing	59.5	59.5	0.0	Growing	Slower	17
Repair, Maintenance/Washing Of Motor Vehicles..	80.8	59.1	-21.7	Growing	Slower	18
Transportation & warehousing	64.7	38.1	-26.6	Declining	From Expansion	1
Utilities	66.7	37.5	-29.2	Declining	From Expansion	1
Water supply, sewage & waste management	75.0	45.0	-30.0	Declining	From Expansion	1
Wholesale/Retail trade	54.7	47.8	-6.9	Declining	From Expansion	1

Table 10: Employment at a Glance

Index	Feb 2020 Index	Mar 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
EMPLOYMENT LEVEL PMI	57.8	47.3	-10.5	Declining	From Expansion	1
Accommodation & food services	55.1	44.3	-10.8	Declining	From Expansion	1
Agriculture	54.4	42.9	-11.5	Declining	From Expansion	1
Arts, Entertainment & Recreation	40.0	62.5	22.5	Growing	From Contraction	1
Construction	56.5	48.2	-8.3	Declining	From Expansion	1
Educational services	55.4	44.3	-11.1	Declining	From Expansion	1
Electricity, gas, steam & air conditioning supply	53.6	34.6	-19.0	Declining	From Expansion	1
Finance & insurance	61.5	48.0	-13.5	Declining	From Expansion	1
Health care & social assistance	61.8	47.8	-14.0	Declining	From Expansion	1
Information & communication	65.2	47.0	-18.2	Declining	From Expansion	1
Management of companies	50.0	50.0	0.0	No Change	Flat	2
Professional, scientific, & technical services	44.4	41.3	-3.1	Declining	Faster	2
Real estate rental & leasing	56.8	50.0	-6.8	No Change	From Expansion	1
Repair, Maintenance/Washing Of Motor Vehicles..	61.5	63.6	2.1	Growing	Faster	11
Transportation & warehousing	61.8	47.6	-14.2	Declining	From Expansion	1
Utilities	75.0	62.5	-12.5	Growing	Slower	7
Water supply, sewage & waste management	62.5	55.0	-7.5	Growing	Slower	2
Wholesale/Retail trade	58.4	51.1	-7.3	Growing	Slower	22

Table 11: Inventory at a Glance

Index	Feb 2020 Index	Mar 2020 Index	Difference	Direction	Rate of Change	Trend (Months)
INVENTORY PMI	58.6	49.6	-9.0	Declining	From Expansion	1
Accommodation & food services	56.0	46.5	-9.5	Declining	From Expansion	1
Agriculture	50.0	42.9	-7.1	Declining	From No Change	1
Arts, Entertainment & Recreation	60.0	62.5	2.5	Growing	Faster	3
Construction	54.8	50.0	-4.8	No Change	From Expansion	1
Educational services	62.0	53.5	-8.5	Growing	Slower	6
Electricity, gas, steam & air conditioning supply	57.1	61.5	4.4	Growing	Faster	4
Finance & insurance	58.7	46.0	-12.7	Declining	From Expansion	1
Health care & social assistance	61.4	47.0	-14.4	Declining	From Expansion	1
Information & communication	59.4	50.0	-9.4	No Change	From Expansion	1
Management of companies	33.3	100.0	66.7	Growing	From Contraction	1
Professional, scientific, & technical services	44.2	50.0	5.8	No Change	From Contraction	1
Real estate rental & leasing	59.7	58.1	-1.6	Growing	Slower	25
Repair, Maintenance/Washing Of Motor Vehicles	84.6	55.0	-29.6	Growing	Slower	8
Transportation & warehousing	62.5	55.0	-7.5	Growing	Slower	10
Utilities	83.3	62.5	-20.8	Growing	Slower	7
Water supply, sewage & waste management	62.5	55.0	-7.5	Growing	Slower	6
Wholesale/Retail trade	60.1	49.4	-10.7	Declining	From Expansion	1

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
Mar '20	51.1	54.4	52.3	49.4	47.1	49.4	42.3	53	62.6	55.6	41.2	50.3

Table 13: Non-Manufacturing PMI Data Series

Month	COMPOSITE PMI	Business Activity	New orders	Employment Level	Inventory	Average Input Price	Backlog of Work	New Exports Orders	Imports	Inventories (sentiment)
Jul '14	55.0	58.9	55.9	50.2	55.2	54.0	46.2	44.0	47.3	47.8
Aug '14	58.9	60.6	59.8	58.3	57.0	56.1	47.0	46.1	46.4	48.1
Sep '14	54.7	57.1	57.5	49.9	54.3	52.8	46.2	40.7	45.2	47.6
Oct '14	57.3	59.6	59.4	53.9	56.4	53.3	46.4	40.8	44.9	43.8
Nov '14	59.6	62.5	63.6	57.9	54.6	57.3	49.6	45.2	47.5	48.1
Dec '14	53.8	56.2	56.0	51.4	51.5	54.5	45.6	43.6	46.5	43.8
Jan '15	50.6	48.8	50.4	51.2	51.9	48.8	43.2	41.1	44.3	47.0
Feb '15	54.0	54.2	54.7	52.5	54.5	54.1	46.0	43.0	44.6	46.1
Mar '15	48.6	49.7	51.1	45.6	48.0	49.8	46.5	39.9	44.2	40.2
Apr '15	53.7	58.2	56.8	49.1	50.8	51.5	46.6	41.1	44.5	43.0
May '15	51.7	52.9	53.1	49.7	51.1	51.3	44.1	37.2	39.1	44.3
Jun '15	50.1	51.5	50.3	46.4	52.0	48.5	44.4	36.9	40.4	42.7
Jul '15	50.0	50.4	51.4	48.6	49.5	50.3	43.8	39.1	39.2	44.0
Aug '15	50.7	52.3	52.4	48.0	50.1	50.7	43.0	39.8	38.3	44.0
Sep '15	50.1	52.1	52.3	47.0	49.1	48.7	44.5	42.9	41.4	45.9
Oct '15	51.9	54.2	54.1	49.3	50.1	49.9	43.9	40.3	42.4	45.2
Nov '15	49.6	52.9	51.6	45.6	48.5	51.8	42.8	37.7	39.0	41.8
Dec '15	53.4	55.9	56.4	50.0	51.5	54.7	47.0	41.9	42.7	47.2
Jan '16	46.9	46.2	46.4	47.0	47.9	57.3	44.3	36.2	39.0	41.6
Feb '16	44.3	43.7	42.0	44.5	47.1	53.6	39.6	37.5	36.6	43.6
Mar '16	45.4	46.3	44.7	43.9	46.5	58.5	43.8	34.3	35.0	41.1
Apr '16	44.3	44.2	42.2	43.3	47.6	62.2	43.1	31.8	33.1	39.8
May '16	44.3	44.3	41.3	44.6	46.9	62.9	38.1	33.2	35.0	40.3
Jun '16	42.3	40.2	39.6	42.5	47.1	60.7	39.6	33.2	34.7	38.5
Jul '16	43.2	42.8	42.3	41.9	45.8	60.4	38.6	30.0	32.7	38.0
Aug '16	43.7	43.6	42.0	41.4	47.7	60.8	39.4	32.9	34.2	39.4
Sep '16	41.0	39.9	40.0	40.3	43.9	63.1	39.6	28.6	30.2	37.9
Oct '16	43.4	43.0	42.7	41.5	46.4	65.3	40.9	32.8	33.8	38.7
Nov '16	42.8	43.0	42.3	40.2	45.5	66.8	42.4	30.8	34.0	41.1
Dec '16	47.1	48.2	46.9	43.8	49.5	64.0	41.5	33.8	35.5	41.6
Jan '17	49.4	50.6	49.4	45.6	52.0	65.6	43.6	32.5	36.1	45.5
Feb '17	44.5	45.4	44.9	42.6	44.9	65.4	42.9	33.4	34.5	38.7
Mar '17	47.1	49.8	46.4	44.0	48.0	62.1	42.7	33.1	34.5	40.6
Apr '17	49.5	53.3	50.5	45.5	48.6	63.1	41.6	29.2	33.2	41.1
May '17	52.7	56.2	53.2	50.2	51.4	62.7	45.3	31.6	34.1	43.6
June '17	54.2	57.0	54.6	53.4	51.8	58.6	40.5	30.3	33.5	42.7
July '17	54.4	56.8	55.1	54.0	51.9	58.1	42.9	32.0	36.8	41.5
Aug '17	54.1	56.1	53.5	54.4	52.3	54.5	42.8	34.5	34.8	42.0
Sep '17	54.9	56.8	55.4	54.7	52.9	56.9	42.2	31.2	35.9	44.2
Oct '17	55.3	57.5	55.7	54.4	53.4	56.4	41.4	29.6	35.4	38.9
Nov '17	57.6	59.4	58.4	54.6	58.0	55.7	43.6	28.8	33.3	40.6
Dec '17	62.1	67.4	62.2	55.7	62.9	56.1	44.6	34.6	39.1	40.3
Jan '18	58.5	61.3	58.2	55.1	59.5	56.9	41.3	31.0	35.1	42.8
Feb '18	56.1	55.6	53.7	55.3	59.8	52.8	41.2	34.7	39.1	40.3
Mar '18	57.2	58.7	55.8	55.1	59.2	50.3	42.9	39.0	38.5	44.1
Apr '18	57.5	58.8	56.4	55.3	59.5	50.3	41.5	34.2	34.9	45.0
May '18	57.3	58.7	55.9	55.6	59.2	50.8	40.6	36.4	38.4	46.2
June '18	57.5	59.1	56.4	55.9	58.5	52.2	44.0	33.2	40.1	42.4
July '18	57.7	59.6	56.1	56.2	59.1	52.1	43.1	42.1	40.5	45.0
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
Mar '20	49.2	52.2	47.8	47.3	49.6	51.2	41.6	36.1	39.1	44.4