## PURCHASING MANAGERS' INDEX

A MONTHLY PUBLICATION

## NOVEMBER 2016 REPORT



## SURVEY MANAGEMENT DIVISION

 STATISTICS DEPARTMENTCENTRAL BANK OF NIGERIA, ABUJA

## PURCHASING MANAGERS' INDEX (PMI) NOVEMBER 2016 REPORT

### 1.0 Introduction

The Statistics Department, Central Bank of Nigeria conducts a monthly survey of purchasing and supply executives of manufacturing and non-manufacturing organizations in 13 locations in Nigeria: - two states in each of the six geo-political zones, and the FCT (Fig. 1). The survey results are used to compute the monthly Purchasing Managers' Index (PMI). The survey for this month was conducted November $9^{\text {th }}$ to $17^{\text {th }}, 2016$ with a total of 1,582 responses received from a sample of 1,950 respondents, representing a response rate of 81.1 per cent. The Bank makes no representation regarding the individual companies, other than that stated by the respondents. The data contained herein further provides input for policy decisions.


Fig. 1: Map of Nigeria showing the survey locations

### 1.1 Data and Method of Presentation

The Manufacturing and Non-Manufacturing PMI Report on businesses is based on data compiled from purchasing and supply executives. Survey responses indicate whether there is change or no change in the level of business activities in the current month compared with the previous month. For each of the indicators measured, this report shows the diffusion index of the responses. The diffusion index is computed as the percent of positive responses plus one-half of the percent of those reporting no change. The composite PMI is then computed as the weighted average of five diffusion indices for manufacturing sector: production level, new orders, supplier delivery time, employment level and raw materials inventory, with assigned weights of $25 \%, 30 \%, 15 \%, 10 \%$ and $20 \%$, respectively. The composite PMI for non-manufacturing sector is computed from four
diffusion indices: business activity, 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 declining. The sub-sectors reporting growth are listed in the order of highest to lowest growth. For the sub-sectors reporting contraction/decline, they are listed in the order of the highest to the lowest decline.

### 2.0 Manufacturing PMI Report

Production level, new orders, employment level and raw material inventories declining at a slower rate; supplier delivery time improving at a faster rate in November 2016

The Manufacturing PMI stood at 46.0 index points in November 2016, indicating a slowing decline in the manufacturing sector during the review period, but a marginal improvement compared with the previous month level (Fig. 2 and Table 1). Twelve of the sixteen sub-sectors surveyed recorded declines in the review month in the following order: computer \& electronic products; primary metal; petroleum \& coal products; transportation equipment; furniture \& related products; printing \& related support activities; nonmetallic mineral products; fabricated metal products; chemical \& pharmaceutical products; textile, apparel, leather \& footwear; paper products; and appliances \& components. The remaining four subsectors grew in the order: cement; food, beverage \& tobacco products; plastics \& rubber products; and electrical equipment.


Fig. 2: Trend of Manufacturing PMI

Table 1: Manufacturing at a Glance

| Index | Series <br> Index* <br> October | Series <br> Index* <br> November | Percentage Point Change | Direction | Rate of Change | Trend** <br> (Months) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Composite PMI \1 | 44.1 | 46.0 | 1.9 | Declining | Slower | 11 |
| Production level | 42.3 | 46.9 | 4.6 | Declining | Slower | 11 |
| New orders | 40.3 | 45.1 | 4.8 | Declining | Slower | 11 |
| Supplier delivery time | 57.7 | 53.2 | -4.5 | Improving | Slower | 9 |
| Employment level | 42.2 | 40.6 | -1.6 | Declining | Faster | 21 |
| Raw materials/WIP Inventories | 42.9 | 46.1 | 3.2 | Declining | Slower | 11 |
| New Export Orders | 37.3 | 39.6 | 2.3 | Declining | Slower | 21 |
| Output Prices | 65.2 | 65.7 | 0.4 | Growing | Faster | 11 |
| Input Prices | 71.8 | 71.2 | -0.5 | Growing | Slower | 29 |
| Quantity of Purchases | 43.5 | 48.1 | 4.5 | Declining | Slower | 11 |
| Business Outstanding/ Backlog of Work | 39.2 | 45.2 | 6.0 | Declining | Slower | 21 |
| Stocks of Finished Goods | 39.9 | 42.0 | 2.2 | Declining | Slower | 21 |
| Manufacturing Sub-Sectors |  |  |  |  |  |  |
| Appliances \& components | 56.0 | 48.1 | -7.9 | Declining | From Expansion | 1 |
| Cement | 48.1 | 57.4 | 9.3 | Growing | From Contraction | 1 |
| Chemical \& pharmaceutical products | 48.2 | 44.4 | -3.8 | Declining | Faster | 8 |
| Computer \& electronic products | 39.3 | 30.0 | -9.3 | Declining | Faster | 4 |
| Electrical equipment | 34.9 | 51.9 | 17.0 | Growing | From Contraction | 1 |
| Fabricated metal products | 38.3 | 43.8 | 5.6 | Declining | Slower | 12 |
| Food, beverage \& tobacco products | 52.9 | 53.4 | 0.5 | Growing | Faster | 2 |
| Furniture \& related products | 43.2 | 41.2 | -2.0 | Declining | Faster | 11 |
| Nonmetallic mineral products | 40.6 | 43.5 | 3.0 | Declining | Slower | 7 |
| Paper products | 43.3 | 47.9 | 4.5 | Declining | Slower | 10 |
| Petroleum \& coal products | 38.5 | 38.3 | -0.2 | Declining | Faster | 8 |
| Plastics \& rubber products | 42.8 | 52.7 | 9.9 | Growing | From Contraction | 1 |
| Primary metal | 37.2 | 35.9 | -1.3 | Declining | Faster | 11 |
| Printing \& related support activities | 40.2 | 42.0 | 1.8 | Declining | Slower | 14 |
| Textile, apparel, leather \& footwear | 46.9 | 47.3 | 0.4 | Declining | Slower | 11 |
| Transportation equipment | 39.2 | 40.8 | 1.6 | Declining | Slower | 5 |

$\backslash 1$ 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

### 2.1 Production Level

At 46.9 index points, the production level index for manufacturing sector declined for the eleventh consecutive month, but showed marginal improvement compared with the index recorded in October 2016. Ten manufacturing sub-sectors recorded declining in production level during the review month in the following order: primary metal; petroleum \& coal products; computer \& electronic products; transportation equipment; furniture \& related products; fabricated metal products; nonmetallic mineral products; paper products; chemical \& pharmaceutical products; and printing \& related support activities. The appliances \& components sub-sector remained unchanged, while the remaining five sub-sectors grew in the review period in the order: cement; food, beverage \& tobacco products; electrical equipment; plastics \& rubber products; and textile, apparel, leather \& footwear (Table 2).

Table 2: Production at a Glance

|  | Series <br> Index <br> October | Series <br> Index <br> November | Percentage <br> Point <br> Change | Direction | Rate <br> of <br> Change | Trend <br> (Months) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| PRODUCTION PMI | 42.3 | 46.9 | 4.6 | Declining | Slower | 11 |
| Appliances \& components | 50.0 | 50.0 | 0.0 | No Change | Flat | 2 |
| Cement | 50.0 | 66.1 | 16.1 | Growing | From No Change | 1 |
| Chemical \& pharmaceutical products | 48.6 | 46.8 | -1.8 | Declining | Faster | 4 |
| Computer \& electronic products | 30.0 | 30.0 | 0.0 | Declining | Flat | 4 |
| Electrical equipment | 26.3 | 56.3 | 29.9 | Growing | =rom Contractior | 1 |
| Fabricated metal products | 31.0 | 40.2 | 9.3 | Declining | Slower | 10 |
| Food, beverage \& tobacco products | 60.3 | 57.3 | -3.0 | Growing | Slower | 2 |
| Furniture \& related products | 39.5 | 38.0 | -1.5 | Declining | Faster | 10 |
| Nonmetallic mineral products | 39.8 | 42.4 | 2.6 | Declining | Slower | 7 |
| Paper products | 40.7 | 46.4 | 5.7 | Declining | Slower | 10 |
| Petroleum \& coal products | 23.1 | 26.9 | 3.8 | Declining | Slower | 4 |
| Plastics \& rubber products | 35.7 | 54.2 | 18.5 | Growing | =rom Contractior | 1 |
| Primary metal | 26.7 | 22.7 | -3.9 | Declining | Faster | 9 |
| Printing \& related support activities | 40.7 | 47.3 | 6.6 | Declining | Slower | 11 |
| Textile, apparel, leather \& footwear | 46.8 | 52.2 | 5.4 | Growing | =rom Contractior | 1 |
| Transportation equipment | 16.7 | 35.0 | 18.3 | Declining | Slower | 5 |

### 2.2 New Orders

The new orders index declined for the eleventh consecutive month. At 45.1 points, the index showed an improvement and declined at a slower rate when compared to the 38.7 index points in October 2016. The eleven sub-sectors that recorded declines in new orders were: computer \& electronic products; primary metal; transportation equipment; printing \& related support activities; furniture \& related products; petroleum \& coal products; nonmetallic mineral products; plastics \& rubber products; fabricated metal products; textile, apparel, leather \& footwear; and chemical \& pharmaceutical products. The paper products sub-sector remained unchanged, while the remaining four sub-sectors grew in the order: cement; appliances \& components; electrical equipment; and food, beverage \& tobacco products (Table 3).

Table 3: New Orders at a Glance

|  | Series <br> Index <br> October | Series <br> Index <br> November | Percentage <br> Point <br> Change | Direction | Rate <br> of <br> Change | Trend <br> (Months) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| NEW ORDERS PMI | 40.3 | 45.1 | 4.8 | Declining | Slower | 11 |
| Appliances \& components | 60.0 | 56.3 | -3.8 | Growing | Slower | 2 |
| Cement | 46.2 | 57.1 | 11.0 | Growing | From Contraction | 1 |
| Chemical \& pharmaceutical products | 44.3 | 46.8 | 2.5 | Declining | Slower | 3 |
| Computer \& electronic products | 25.0 | 15.0 | -10.0 | Declining | Faster | 4 |
| Electrical equipment | 34.2 | 56.3 | 22.0 | Growing | From Contraction | 1 |
| Fabricated metal products | 31.0 | 44.3 | 13.3 | Declining | Slower | 12 |
| Food, beverage \& tobacco products | 52.8 | 55.8 | 3.0 | Growing | Faster | 2 |
| Furniture \& related products | 39.5 | 39.8 | 0.3 | Declining | Slower | 11 |
| Nonmetallic mineral products | 35.2 | 43.5 | 8.3 | Declining | Slower | 7 |
| Paper products | 40.7 | 50.0 | 9.3 | No Chang From Contraction | 1 |  |
| Petroleum \& coal products | 42.3 | 42.3 | 0.0 | Declining | Flat | 2 |
| Plastics \& rubber products | 37.0 | 43.8 | 6.7 | Declining | Slower | 5 |
| Primary metal | 30.0 | 31.8 | 1.8 | Declining | Slower | 9 |
| Printing \& related support activities | 35.3 | 35.1 | -0.2 | Declining | Faster | 11 |
| Textile, apparel, leather \& footwear | 44.1 | 46.2 | 2.0 | Declining | Slower | 11 |
| Transportation equipment | 25.0 | 35.0 | 10.0 | Declining | Slower | 4 |

### 2.3 Supplier Delivery Time

At 53.2 index points, the supplier delivery time index for manufacturing sub-sectors witnessed improvement at decreasing rate in the month of November 2016. The index recorded improvements for the ninth consecutive month. Ten sub-sectors recorded improving suppliers' delivery time in the following order: computer \& electronic products; petroleum \& coal products; plastics \& rubber products; transportation equipment; paper products; furniture \& related products; printing \& related support activities; textile, apparel, leather \& footwear; nonmetallic mineral products; and fabricated metal products. The appliances \& components; cement; and primary metal sub-sectors remained unchanged, while the electrical equipment; chemical \& pharmaceutical products; and food, beverage \& tobacco products sub-sectors recorded worsening delivery time in November (Table 4).

Table 4: Supplier Delivery Time at a Glance

| Index | Percentage |  |  |  | Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Series Index Series Index |  | Point |  | of | Trend |
|  | October | November | Change | Direction | Change | (Months) |
| SUPPLIER DELIVERY PMI | 57.7 | 53.2 | -4.5 | Improving | Slower | 9 |
| Appliances \& components | 50.0 | 50.0 | 0.0 | No Change | Flat | 2 |
| Cement | 57.7 | 50.0 | -7.7 | No Change | From Improving | 1 |
| Chemical \& pharmaceutical products | 67.1 | 47.9 | -19.3 | Worsening | From Improving | 1 |
| Computer \& electronic products | 65.0 | 80.0 | 15.0 | Improving | Faster | 2 |
| Electrical equipment | 60.5 | 43.8 | -16.8 | Worsening | From Improving | 1 |
| Fabricated metal products | 58.8 | 50.6 | -8.2 | Improving | Slower | 8 |
| Food, beverage \& tobacco products | 44.9 | 48.1 | 3.2 | Worsening | Slower | 3 |
| Furniture \& related products | 63.2 | 56.0 | -7.1 | Improving | Slower | 6 |
| Nonmetallic mineral products | 55.7 | 52.2 | -3.5 | Improving | Slower | 6 |
| Paper products | 59.3 | 57.1 | -2.1 | Improving | Slower | 2 |
| Petroleum \& coal products | 69.2 | 76.9 | 7.7 | Improving | Faster | 4 |
| Plastics \& rubber products | 66.1 | 62.5 | -3.6 | Improving | Slower | 9 |
| Primary metal | 63.3 | 50.0 | -13.3 | No Change | From Improving | 1 |
| Printing \& related support activities | 58.0 | 54.8 | -3.2 | Improving | Slower | 4 |
| Textile, apparel, leather \& footwear | 58.0 | 52.7 | -5.3 | Improving | Slower | 7 |
| Transportation equipment | 50.0 | 60.0 | 10.0 | Improving | From No Change | 1 |

### 2.4 Employment Level

Employment level index in the month of November 2016 stood at 40.6 points, indicating declines in employment level for the twenty-first consecutive month. However, the index declined at a faster rate when compared with the level in the preceding month. Of the sixteen sub-sectors, fourteen recorded declines in the following order: computer \& electronic products; petroleum \& coal products; appliances \& components; transportation equipment; printing \& related support activities; chemical \& pharmaceutical products; furniture \& related products; textile, apparel, leather \& footwear; paper products; nonmetallic mineral products; electrical equipment; fabricated metal products; primary metal and food, beverage \& tobacco products. The cement sub-sector remained unchanged, while the plastics \& rubber products sub-sector recorded growth during the review period (Table 5).

Table 5: Employment Level at a Glance

| Index | Series <br> Index <br> October | Series <br> Index <br> November | Percentage <br> Point <br> Change | Direction | Rate <br> of <br> Change | Trend <br> (Months) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| EMPLOYMENT LEVEL PMI | 42.2 | 40.6 | -1.6 | Declining | Faster | 21 |
| Appliances \& components | 60.0 | 31.3 | -28.8 | Declining | From Expansion | 1 |
| Cement | 44.2 | 50.0 | 5.8 | No Change | From Contraction | 1 |
| Chemical \& pharmaceutical products | 40.0 | 36.2 | -3.8 | Declining | Faster | 13 |
| Computer \& electronic products | 45.0 | 10.0 | -35.0 | Declining | Faster | 4 |
| Electrical equipment | 26.3 | 43.8 | 17.4 | Declining | Slower | 6 |
| Fabricated metal products | 42.3 | 44.2 | 1.9 | Declining | Slower | 16 |
| Food, beverage \& tobacco products | 48.6 | 47.5 | -1.0 | Declining | Faster | 6 |
| Furniture \& related products | 42.8 | 37.3 | -5.4 | Declining | Faster | 13 |
| Nonmetallic mineral products | 36.4 | 40.2 | 3.9 | Declining | Slower | 11 |
| Paper products | 40.7 | 39.3 | -1.5 | Declining | Faster | 4 |
| Petroleum \& coal products | 38.5 | 26.9 | -11.5 | Declining | Faster | 4 |
| Plastics \& rubber products | 41.1 | 54.2 | 13.1 | Growing | From Contraction | 1 |
| Primary metal | 40.0 | 45.5 | 5.5 | Declining | Slower | 4 |
| Printing \& related support activities | 35.3 | 35.8 | 0.5 | Declining | Slower | 16 |
| Textile, apparel, leather \& footwear | 44.7 | 38.6 | -6.1 | Declining | Faster | 12 |
| Transportation equipment | 66.7 | 35.0 | -31.7 | Declining | From Expansion | 1 |

### 2.5 Raw Materials Inventory

At 46.1 index points, the raw materials inventory index declined for the eleventh consecutive month in the review period. The index declined at a slower rate when compared with the previous month. Of the sixteen sub-sectors, ten recorded declines in raw materials inventories in the order: petroleum \& coal products; furniture \& related products; computer \& electronic products; nonmetallic mineral products; fabricated metal products; primary metal; chemical \& pharmaceutical products; printing \& related support activities; textile, apparel, leather \& footwear; and paper products. The appliances \& components sub-sector remained unchanged, while the remaining five sub-sectors recorded growth in inventories in the order: cement; plastics \& rubber products; food, beverage \& tobacco products; electrical equipment; and transportation equipment (Table 6).

Table 6: Raw Materials Inventories at a Glance

| Index | Series <br> Index <br> October | Series <br> Index <br> November | Percentage <br> Point <br> Change | Direction | Rate <br> of <br> Change | Trend* <br> (Months) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| INVENTORIES PMI | 42.9 | 46.1 | 3.2 | Declining | Slower | 11 |
| Appliances \& components | 60.0 | 50.0 | -10.0 | No Change | From Expansion | 1 |
| Cement | 42.3 | 62.5 | 20.2 | Growing | From Contraction | 1 |
| Chemical \& pharmaceutical products | 47.1 | 42.6 | -4.6 | Declining | Faster | 10 |
| Computer \& electronic products | 55.0 | 40.0 | -15.0 | Declining | From Expansion | 1 |
| Electrical equipment | 36.8 | 56.3 | 19.4 | Growing | From Contraction | 1 |
| Fabricated metal products | 39.6 | 40.7 | 1.1 | Declining | Slower | 7 |
| Food, beverage \& tobacco products | 55.2 | 56.3 | 1.1 | Growing | Faster | 2 |
| Furniture \& related products | 34.2 | 39.0 | 4.8 | Declining | Slower | 10 |
| Nonmetallic mineral products | 44.3 | 40.2 | -4.1 | Declining | Faster | 12 |
| Paper products | 38.9 | 48.2 | 9.3 | Declining | Slower | 4 |
| Petroleum \& coal products | 19.2 | 19.2 | 0.0 | Declining | Flat | 9 |
| Plastics \& rubber products | 46.4 | 58.3 | 11.9 | Growing | From Contraction | 1 |
| Primary metal | 40.0 | 40.9 | 0.9 | Declining | Slower | 5 |
| Printing \& related support activities | 37.2 | 42.6 | 5.4 | Declining | Slower | 12 |
| Textile, appareI, leather \& footwear | 43.1 | 47.8 | 4.7 | Declining | Slower | 10 |
| Transportation equipment | 66.7 | 55.6 | -11.1 | Growing | Slower | 2 |

### 3.0 Non-Manufacturing PMI Report

Business activity declining at a slower rate, while new orders, employment level and raw materials inventories declining at a faster rate in November 2016

The composite PMI for the non-manufacturing sector declined for the eleventh consecutive month. The index stood at 42.8 points, indicating a faster decline when compared to the index in October 2016. Of the eighteen non-manufacturing sub-sectors, sixteen recorded declines in the following order: public administration; water supply, sewage \& waste management; construction; information \& communication; professional, scientific, \& technical services; electricity, gas, steam \& air conditioning supply; accommodation \& food services; real estate, rental \& leasing; management of companies; wholesale trade; utilities; repair, maintenance/washing of motor vehicles; arts, entertainment \& recreation; transportation \& warehousing; health care \& social assistance; and educational services. The remaining two subsectors recorded growth in the order: agriculture; and finance \& insurance (Table 7 and Fig. 3).

Table 7: Non-Manufacturing at a Glance

| Index | Series Index October | Series Index <br> November | Percentage <br> Point Change | Direction | Rate of Change | Trend (Months) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Composite PMI \2 | 43.4 | 42.8 | -0.6 | Declining | Faster | 11 |
| Business Activity | 43.0 | 43.0 | 0.0 | Declining | Slower | 11 |
| Level of new orders/customers/incoming business received | 42.7 | 42.3 | -0.4 | Declining | Faster | 11 |
| Level of employment in your organisation | 41.5 | 40.2 | -1.3 | Declining | Faster | 11 |
| Raw materials/WIP Inventories | 46.4 | 45.5 | -0.9 | Declining | Faster | 11 |
| Average price of yourlnputs (volume weighted) | 65.3 | 66.8 | 1.5 | Growing | Faster | 13 |
| Level of outstanding business/ Backlog of work in your organisation | 40.9 | 42.4 | 1.5 | Declining | Slower | 29 |
| New Exports orders | 32.8 | 30.8 | -1.9 | Declining | Faster | 29 |
| Imports | 33.8 | 34.0 | 0.2 | Declining | Slower | 29 |
| Finished goods Inventories (sentiments) | 38.7 | 41.1 | 2.3 | Declining | Slower | 29 |
| Non-manufacturing sub-sectors |  |  |  |  |  |  |
| Accommodation \& food services | 38.5 | 40.0 | 1.4 | Declining | Slower | 11 |
| Agriculture | 55.0 | 52.7 | -2.3 | Growing | Slower | 6 |
| Arts, entertainment \& recreation | 47.1 | 46.9 | -0.1 | Declining | Faster | 6 |
| Construction | 26.2 | 34.7 | 8.5 | Dedlining | Slower | 18 |
| Educational services | 60.9 | 48.2 | -12.6 | Declining | From Expansion | 1 |
| Electricity, gas, steam \& air conditioning supply | 44.6 | 39.0 | -5.7 | Declining | Faster | 10 |
| Finance \& insurance | 46.0 | 50.8 | 4.8 | Growing | From Contraction | 1 |
| Health care \& social assistance | 47.5 | 48.1 | 0.6 | Declining | Slower | 6 |
| Information \& communication | 48.4 | 35.1 | -13.3 | Declining | Faster | 11 |
| Management of companies | 30.7 | 42.0 | 11.4 | Declining | Slower | 13 |
| Professional, scientific, \& technical services | 37.9 | 38.9 | 1.0 | Declining | Slower | 21 |
| Public administration | 32.1 | 31.3 | -0.9 | Declining | Faster | 11 |
| Real estate, rental \& leasing | 43.4 | 41.1 | -2.3 | Declining | Faster | 15 |
| Repair, maintenance/washing of motor vehicles... | 41.1 | 44.0 | 2.9 | Dedlining | Slower | 11 |
| Transportation \& warehousing | 46.7 | 47.2 | 0.5 | Declining | Slower | 2 |
| Utilities | 39.7 | 42.2 | 2.5 | Declining | Slower | 14 |
| Water supply, sewage \& waste management | 47.8 | 32.5 | -15.3 | Declining | Faster | 5 |
| Wholesale trade | 38.6 | 42.1 | 3.5 | Declining | Slower | 11 |

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Fig. 3: Trend of Non-Manufacturing PMI

### 3.1 Business Activity

At 43.0 index points, non-manufacturing business activity declined for the eleventh consecutive month in November 2016. Thirteen of the eighteen sub-sectors recorded declines in the following order: information \& communication; professional, scientific, \& technical services; construction; repair, maintenance/washing of motor vehicles; public administration; water supply, sewage \& waste management; utilities; accommodation \& food services; wholesale trade; real estate, rental \& leasing; arts, entertainment \& recreation; electricity, gas, steam \& air conditioning supply and educational services. The health care \& social assistance; and management of companies subsectors remained unchanged, while remaining three sub-sectors recorded growth in the review month in the order: finance \& insurance; agriculture and transportation \& warehousing (Table 8).

Table 8: Business Activity at a Glance

| Index | Series <br> Index <br> October | Series <br> Index <br> November | Percentage Point Change | Direction | Rate of Change | Trend (Months) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BUSINESS ACTIVITY PMI | 43.0 | 43.0 | 0.0 | Declining | Flat | 11 |
| Accommodation \& food services | 40.4 | 40.5 | 0.1 | Declining | Slower | 11 |
| Agriculture | 55.0 | 54.9 | -0.1 | Growing | Slower | 6 |
| Arts, entertainment \& recreation | 47.1 | 44.4 | -2.6 | Declining | Faster | 6 |
| Construction | 19.4 | 35.4 | 16.0 | Declining | Slower | 9 |
| Educational services | 64.9 | 45.3 | -19.5 | Declining | From Expansion | 1 |
| Electricity, gas, steam \& air conditioning supply | 47.6 | 44.9 | -2.7 | Declining | Faster | 8 |
| Finance \& insurance | 51.1 | 58.1 | 7.0 | Growing | Faster | 2 |
| Health care \& social assistance | 48.7 | 50.0 | 1.3 | No Change | From Contraction | 1 |
| Information \& communication | 45.5 | 33.6 | -11.9 | Declining | Faster | 3 |
| Management of companies | 18.2 | 50.0 | 31.8 | No Change | From Contraction | 1 |
| Professional, scientific, \& technical services | 34.7 | 35.2 | 0.4 | Declining | Slower | 10 |
| Public administration | 39.3 | 40.0 | 0.7 | Declining | Slower | 4 |
| Real estate, rental \& leasing | 45.9 | 40.9 | -5.0 | Declining | Faster | 11 |
| Repair, maintenance/washing of motor vehicles... | 33.3 | 36.5 | 3.2 | Declining | Slower | 11 |
| Transportation \& warehousing | 51.1 | 53.3 | 2.2 | Growing | Faster | 2 |
| Utilities | 38.2 | 40.4 | 2.1 | Declining | Slower | 2 |
| Water supply, sewage \& waste management | 47.1 | 40.0 | -7.1 | Declining | Faster | 5 |
| Wholesale trade | 36.0 | 40.7 | 4.6 | Declining | Slower | 11 |

### 3.2 New Orders

At 42.3 index points, new orders declined at a faster rate in the month of November 2016 when compared with the index in the preceding month. The new orders index has been declining for eleven consecutive months. Of the eighteen sub-sectors, fourteen recorded declines in the following order: public administration; construction; professional, scientific, \& technical services; water supply, sewage \& waste management; information \& communication; accommodation \& food services; electricity, gas, steam \& air conditioning supply; management of companies; real estate, rental \& leasing; wholesale trade; utilities; repair, maintenance/washing of motor vehicles; arts, entertainment \& recreation; and transportation \& warehousing. The educational services; and health care \& social assistance remained unchanged, while remaining two sub-sectors recorded growth in the order: finance \& insurance; and agriculture sub-sectors (Table 9).

Table 9: New Orders at a Glance

| Index | Series <br> Index <br> October | Series <br> Index <br> November | Percentage <br> Point <br> Change | Rate <br> Direction | Trend <br> of <br> (Months) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| NEW ORDERS PMI | 42.7 | 42.3 | -0.4 | Declining | Faster |

### 3.3 Employment Level

The employment level Index declined for the eleventh consecutive month in November 2016. At 40.2 points, the index declined at a faster rate when compared with the 41.5 points recorded in October 2016. Sixteen sub-sectors recorded declines in employment level in the following order: public administration; water supply, sewage \& waste management; construction; electricity, gas, steam \& air conditioning supply; information \& communication; real estate, rental \& leasing; utilities; wholesale trade; accommodation \& food services; professional, scientific, \& technical services; finance \& insurance; management of companies; arts, entertainment \& recreation; health care \& social assistance; transportation \& warehousing and repair, maintenance/washing of motor vehicles. The educational services sub-sector remained unchanged, while the agriculture sub-sector grew in the review month (Table 10).

Table 10: Employment at a Glance

| Index | Series <br> Index <br> October | Series <br> Index <br> November | Percentage <br> Point <br> Change | Direction | Rate <br> of <br> Change | Trend <br> (Months) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| EMPLOYMENT PMI | 41.5 | 40.2 | -1.3 | Declining | Faster |  |
| Accommodation \& food services | 36.7 | 38.7 | 1.9 | Declining | Slower |  |
| Agriculture | 50.0 | 51.6 | 1.6 | Growing | From No Change | 1 |
| Arts, entertainment \& recreation | 41.2 | 41.1 | -0.1 | Declining | Faster | 10 |
| Construction | 29.0 | 34.1 | 5.1 | Declining | Slower | 18 |
| Educational services | 60.8 | 50.0 | -10.8 | No Change From Expansion | 1 |  |
| Electricity, gas, steam \& air conditioning supply | 47.6 | 35.0 | -12.6 | Declining | Faster | 6 |
| Finance \& insurance | 43.3 | 40.7 | -2.6 | Declining | Faster | 10 |
| Health care \& social assistance | 44.7 | 42.5 | -2.2 | Declining | Faster | 11 |
| Information \& communication | 41.8 | 35.6 | -6.2 | Declining | Faster | 21 |
| Management of companies | 31.8 | 40.9 | 9.1 | Declining | Slower | 9 |
| Professional, scientific, \& technical services | 39.8 | 38.9 | -0.9 | Declining | Faster | 10 |
| Public administration | 32.1 | 30.0 | -2.1 | Declining | Faster | 6 |
| Real estate, rental \& leasing | 39.8 | 38.0 | -1.8 | Declining | Faster | 12 |
| Repair, maintenance/washing of motor vehicles... | 39.3 | 45.2 | 5.9 | Declining | Slower | 8 |
| Transportation \& warehousing | 40.2 | 44.4 | 4.2 | Declining | Slower | 10 |
| Utilities | 35.3 | 38.0 | 2.7 | Declining | Slower | 9 |
| Water supply, sewage \& waste management | 50.0 | 32.5 | -17.5 | Declining | From No Change | 1 |
| Wholesale trade | 38.2 | 38.2 | 0.0 | Declining | Faster | 12 |

### 3.4 Inventories/Work in Progress

Non-manufacturing inventories/work in progress index stood at 45.5 index points in the review month, indicating a faster decline when compared with the 46.4 points recorded in October 2016. Fourteen sub-sectors recorded lower inventories in the following order: water supply, sewage \& waste management; management of companies; electricity, gas, steam \& air conditioning supply; information \& communication; construction; public administration; transportation \& warehousing; real estate, rental \& leasing; accommodation \& food services; utilities; repair, maintenance/washing of motor vehicles; wholesale trade; finance \& insurance and educational services. The health care \& social assistance and professional, scientific, \& technical services subsector remained unchanged, while the remaining two sub-sectors recorded higher inventory in the following order: arts, entertainment \& recreation and agriculture (Table 11).

Table 11: Raw Materials Inventories at a Glance

| Index | Series <br> Index <br> October | Series <br> Index <br> November | Percentage <br> Point <br> Change | Direction | Rate <br> of | Trend <br> (Months) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Change |  |  |  |  |  |  |

## APPENDICES: HISTORICAL DATA

MANUFACTURING PMI DATA SERIES

|  | $\begin{aligned} & \frac{1}{\bar{n}} \\ & \sum_{0}^{n} \\ & \sum \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 |

NON-MANUFACTURING PMI DATA SERIES

| $\begin{aligned} & \text { 듣 } \\ & \text { D } \end{aligned}$ | $\begin{aligned} & \text { 気 } \\ & 0 \\ & \sum_{0}^{0} \\ & \sum_{0}^{2} \end{aligned}$ |  | $\begin{aligned} & \frac{n}{0} \\ & \stackrel{0}{0} 0 \\ & 3 \\ & 3 \\ & 0 \\ & \hline \end{aligned}$ |  | $\begin{aligned} & \geq 0 \\ & 0 \\ & \text { N } \\ & \text { D } \\ & \text { I } \end{aligned}$ |  |  | $$ | $\begin{aligned} & \text { ! } \\ & 0 \\ & \underline{0} \\ & \underline{E} \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 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 |


[^0]:    12 The composite PMI is a simple average of the following diffusion (series) indices: business activity, new orders, employment level and inventories.

