

# Producer Price Index (PPI) - Maldives

Base period =2007 | Price reference = October 2012

**SEPTEMBER 2015**

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## KEY FIGURES

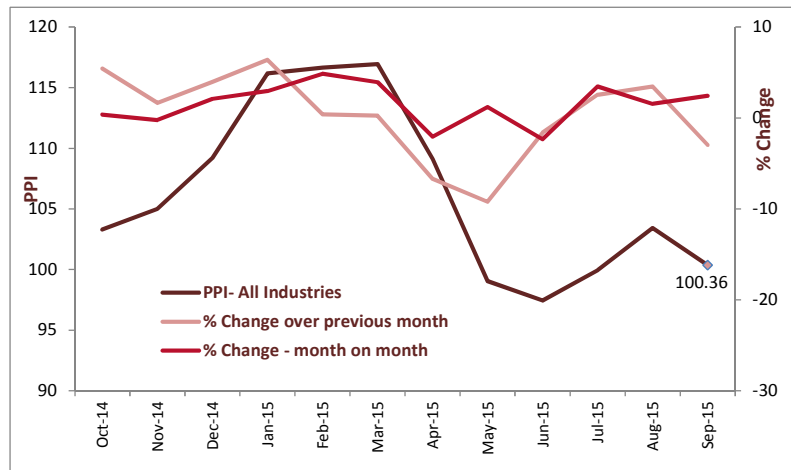
### PPI and Month on month Percentage Change

|     | PPI -All Industries |        | % Change  |
|-----|---------------------|--------|-----------|
|     | 2014                | 2015   | 2015/2014 |
| Jul | 96.61               | 100.69 | 4.22      |
| Aug | 101.85              | 103.44 | 1.56      |
| Sep | 97.98               | 100.36 | 2.44      |

### Monthly PPI and Percentage Change

|        | PPI- All Industries | % Change over previous month | % Change - month on month |
|--------|---------------------|------------------------------|---------------------------|
| Oct-14 | 103.30              | 5.44                         | 0.37                      |
| Nov-14 | 105.01              | 1.66                         | -0.23                     |
| Dec-14 | 109.20              | 3.99                         | 2.11                      |
| Jan-15 | 116.19              | 6.40                         | 2.96                      |
| Feb-15 | 116.66              | 0.41                         | 4.87                      |
| Mar-15 | 116.95              | 0.25                         | 3.94                      |
| Apr-15 | 109.10              | -6.71                        | -2.07                     |
| May-15 | 99.05               | -9.22                        | 1.20                      |
| Jun-15 | 97.45               | -1.61                        | -2.34                     |
| Jul-15 | 100.69              | 3.33                         | 4.22                      |
| Aug-15 | 103.44              | 2.72                         | 1.56                      |
| Sep-15 | 100.36              | -2.97                        | 2.44                      |

**FI: Monthly PPI and Percentage Change**



2015 price movements displays that January to April and August to September prices were higher than the reference month, October 2012.

## KEY POINTS — All Industries' PPI of Quarter 3, 2015

Producer Price index increased in August and September 2015 while July 2015 prices decreased when compared to price reference (October 2012). PPI of September is 100.36 which is an increase of +2.44% compared to September 2014. When comparisons were made on the same period of 2014, prices of all 3 months of quarter 3 showed an increase in July and August showing a 4.22% and 1.56% respectively.

When Producer Price Index comparisons were made to the previous month, September prices showed a decline of 2.97% while July and August prices increased by 3.33% and 2.72% respectively.

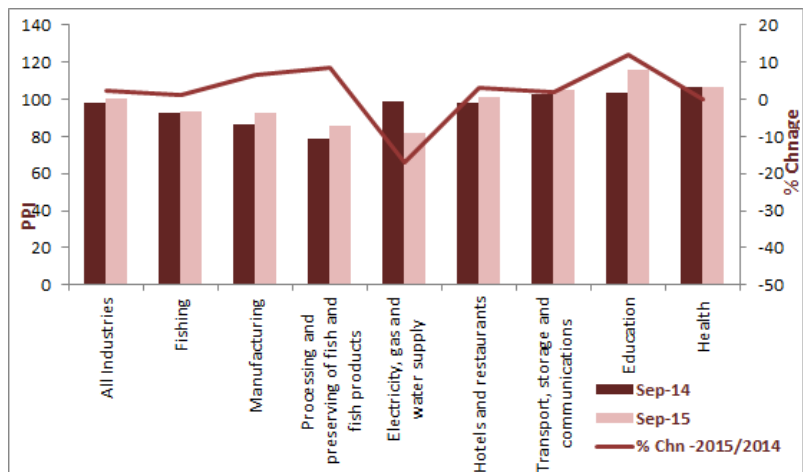
## OVERVIEW OF MOVEMENTS— September 2015 / September 2014

**F2: PPI and Percentage change –September 2015**

The most prominent price change was seen in 'Electricity, gas and water supply' industry where the prices fell by 16.98%.

The highest price increase was seen in Education sector (+12.02). Processed fish industry also displayed a significant increase in prices (+8.54)

Hotels and Restaurant industry prices increased by 2.99%. Transport & Communication industry and Health industries showed a marginal increase of 1.99% and 0.05% respectively. Fishing industry prices also increased by 1.23%



## 1. Hotels and Restaurants Industry

### OVERVIEW OF HOTELS AND RESTAURANTS INDUSTRY MOVEMENTS

Quarter 3, 2015 prices of Hotels and restaurants' industry were higher than the price reference month. July and August prices went up by 3.57% and 5.23% respectively when compared to previous month. However September prices showed a decline (-5.03%) when compared to August.

When comparisons were made with the same period of previous year all three months of Q3 showed an increase in price with August and September showing 2.88% and 2.99% respectively. July showed the highest price increase (+5.81%).

**PPI and Percentage change (month on month)**

|        | All Industries |                      | Hotels & Restaurants |                      |                              | Tourist Arrivals ('000s) | Tourist Bednights ('000s) |
|--------|----------------|----------------------|----------------------|----------------------|------------------------------|--------------------------|---------------------------|
|        | PPI            | % Chn Month on month | PPI                  | % Chn Month on month | % Change over previous month |                          |                           |
| Oct-14 | 103.30         | 0.37                 | 105.98               | 1.56                 | 7.67                         | 110.33                   | 664.60                    |
| Nov-14 | 105.01         | -0.23                | 111.16               | 3.17                 | 4.89                         | 89.78                    | 552.68                    |
| Dec-14 | 109.20         | 2.11                 | 116.00               | 5.38                 | 4.35                         | 103.74                   | 617.70                    |
| Jan-15 | 116.19         | 2.96                 | 129.35               | 6.90                 | 11.51                        | 97.07                    | 630.84                    |
| Feb-15 | 116.66         | 4.87                 | 132.96               | 9.49                 | 2.79                         | 120.47                   | 682.42                    |
| Mar-15 | 116.95         | 3.94                 | 132.57               | 9.55                 | -0.29                        | 112.43                   | 656.25                    |
| Apr-15 | 109.10         | -2.07                | 119.01               | -1.85                | -10.23                       | 102.24                   | 602.84                    |
| May-15 | 99.05          | 1.20                 | 100.82               | 4.39                 | -15.28                       | 95.39                    | 556.79                    |
| Jun-15 | 97.45          | -2.34                | 97.96                | -1.00                | -2.84                        | 81.51                    | 434.71                    |
| Jul-15 | 99.95          | 3.45                 | 101.45               | 5.81                 | 3.57                         | 104.52                   | 547.84                    |
| Aug-15 | 103.42         | 1.54                 | 106.76               | 2.88                 | 5.23                         | 110.14                   | 607.63                    |
| Sep-15 | 100.36         | 2.44                 | 101.38               | 2.99                 | -5.03                        | 95.51                    | 524.08                    |

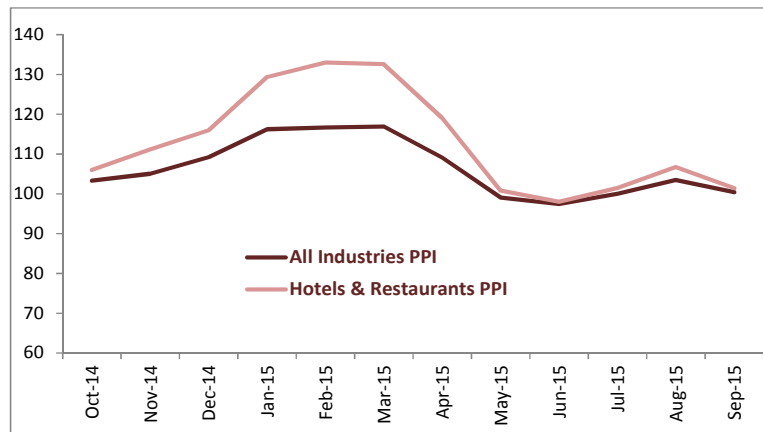
Hotels and Restaurants industry prices also shows the trend as the overall PPI. Also the industry's prices are demand driven and hence Q1 and Q4 prices are usually higher than Q2 and Q3.

### COMPARISON WITH PPI—ALL INDUSTRIES

**F3: PPI - Hotels and Restaurants**

Hotels and Restaurants sector accounts for about 56% of PPI weights, which therefore is the most dominant sector and plays a major role in the movements of the overall index.

The figure 3 shows the correlation between overall PPI and Hotels and Restaurants sector PPI. Both series shows that prices are highest during January to March and declines from April and starts picking up from October.



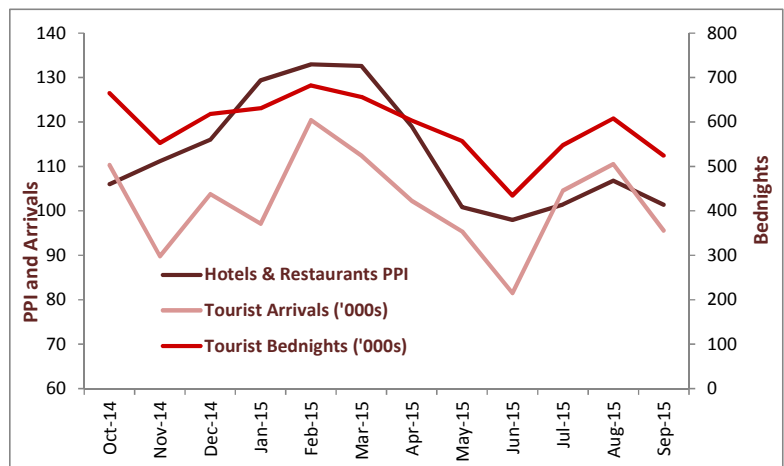
### COMPARISON WITH KEY SECTORIAL INDICATORS

**F4: PPI - Hotels and Restaurants PPI, Tourist Arrivals and Bed-nights**

PPI of Hotels and Restaurants sector and both indicators, arrivals and bed-nights exhibits a similar trend. Identical to PPI movements, both indicators went up in July and August and declined in September.

Tourist arrivals as well as tourist bed-nights peaked in February. Tourist arrival stood at 120,468 and bed-nights at 682,419 in February 2015.

In 2015 the highest PPI of Hotel and Restaurant sector was also seen in February (132.96).



## 2. Fishing and Processing and Preserving of Fish and Fish Products Industries

### OVERVIEW AND INDUSTRY MOVEMENTS

Fishing prices of August and September 2015 showed an increase of +10.27% and +1.23% respectively compared to the same month of 2014 although the index shows the price level of these months are lower than the reference month. However July PPI is 102.98 which showed an increase of +10.66% when compared to the corresponding July 2014.

Prices of Processed fish in all three months of quarter 3 were lower than price reference. But July and September showed a sizeable increase of +9.68% and +8.54% respectively when compared the same month of 2014. When comparisons were made with the previous month July 2015 prices went up by +13.64 % and August prices declined by -6.89%

Processed fish prices remained lower than price reference (October 2012) since October 2013.

**2.1: PPI—Fishing and Processed Fish**

|        | PPI     |                | % Chn - month on month |                |
|--------|---------|----------------|------------------------|----------------|
|        | Fishing | Processed fish | Fishing                | Processed fish |
| Oct-14 | 97.50   | 90.66          | -0.26                  | -4.38          |
| Nov-14 | 88.75   | 82.52          | -13.29                 | -13.11         |
| Dec-14 | 95.11   | 85.53          | 5.11                   | -11.77         |
| Jan-15 | 96.39   | 85.19          | 6.52                   | -0.28          |
| Feb-15 | 99.69   | 86.60          | 11.95                  | 14.23          |
| Mar-15 | 93.31   | 78.76          | 2.74                   | -2.95          |
| Apr-15 | 88.41   | 71.82          | -5.14                  | -2.57          |
| May-15 | 100.56  | 81.67          | 1.53                   | -3.46          |
| Jun-15 | 92.55   | 77.34          | -4.87                  | -21.04         |
| Jul-15 | 102.98  | 87.90          | 10.66                  | 9.68           |
| Aug-15 | 99.97   | 81.84          | 10.27                  | -0.89          |
| Sep-15 | 93.76   | 85.42          | 1.23                   | 8.54           |

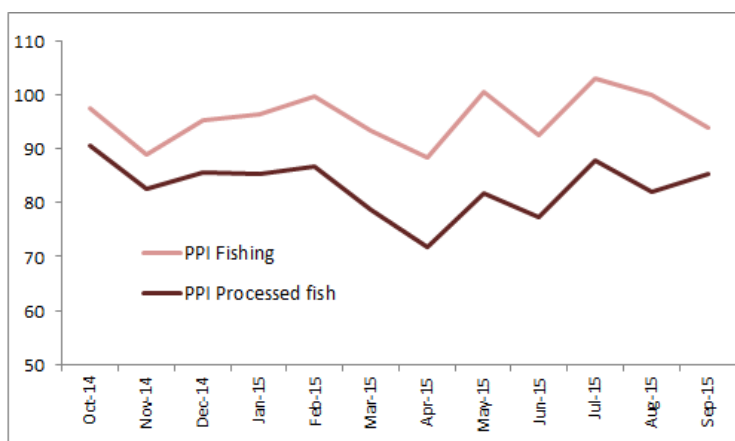
**Note:**

As for Fishing Industry, prices of both skipjack tuna and yellow-fin tuna (YFT) are included. However skipjack prices variations are minimal in contrast to YFT which is volatile. And due to market structure YFT price movements dominates the fishing industry of PPI.

Similar to Fishing industry, YFT products leads the Processing and preservation of fishing industry also due to market structure.

Fish prices depend on landings while fish exports market depends on international fish prices. Hence these two sectors do not adhere a direct correlation.

**F5: PPI—Fishing and Processed Fish**



## 3. Transport and Communications

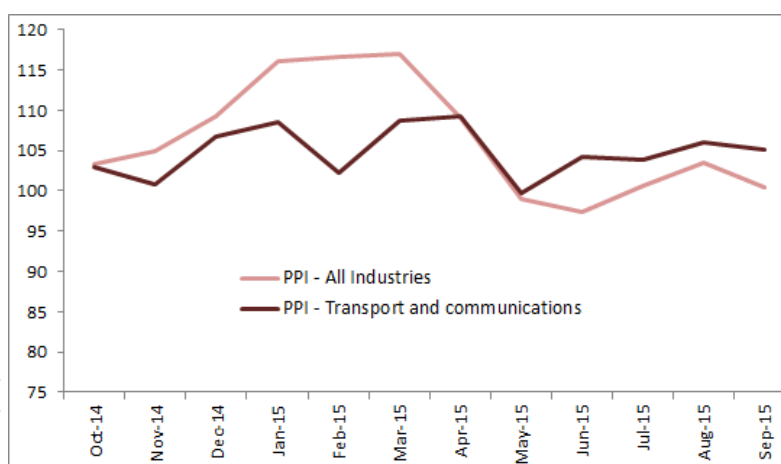
In quarter 3, Transport and communication prices were higher than price reference (October 2012). September showed the highest price increase with +1.99% when compared to September 2014. However September prices are 2.96% lower than the previous month (August 2014).

Both July and August also showed marginal increase in prices when compared to the corresponding month of 2014.

**Note:**

For telecommunications sector average revenue is used as an indicator of price move-

**F6: PPI — Transport and Communication**



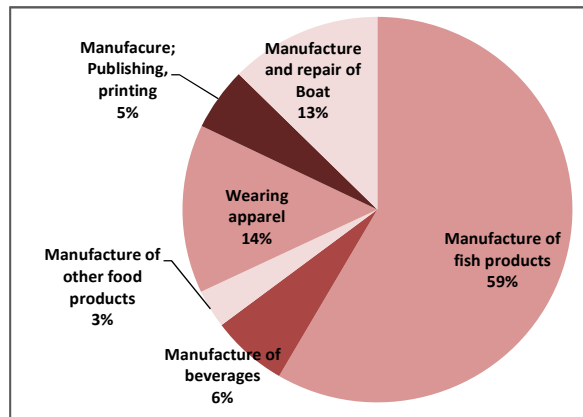
## 4. Manufacturing

**F7: Manufacturing Sector's weight structure**

Manufacturing industry shares 12% in the overall PPI.

Within the manufacturing sector, Processed or preserved fish products shares 59%

Hence Manufacturing sector is dominated by the movements of Manufacture of processed or preserved fish products .



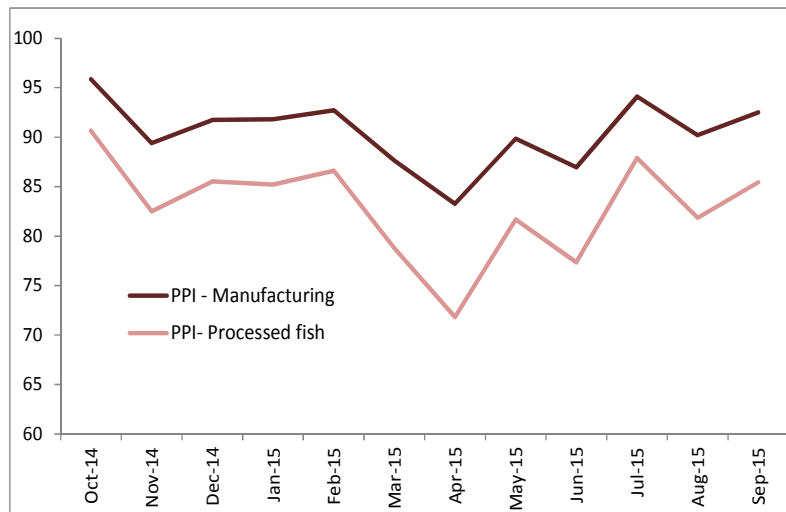
### OVERVIEW OF MANUFACTURING INDUSTRY MOVEMENTS

**F8: PPI - Manufacturing**

PPIs of manufacturing continued to remain lower than price reference in quarter 2 of 2015. Similar to Processed Fish PPI, lowest PPI of Manufacturing industry for 2015 was in April. (83.27)

When comparisons were made with the same month of previous year, July and September prices showed a noteworthy increase of +7.23% and +6.78% respectively., while August prices increased by +0.78%

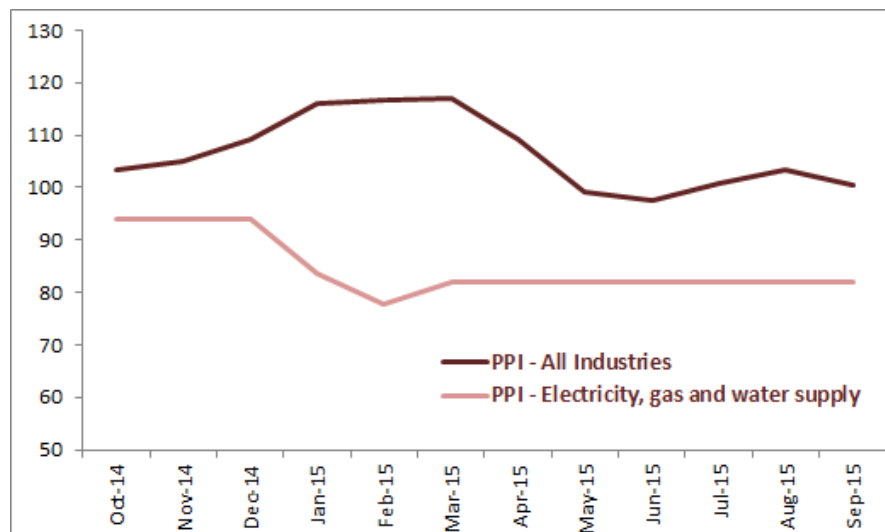
When comparisons were made with the previous month, manufacturing prices of July went up by 8.21% due to the increase in processed fish prices which increased by 13.64%.



## 5. Electricity, Gas and Water Supply

**F9: PPI – Electricity, gas and water supply**

Quarter 3 PPIs of 'electricity, gas and water supply' industry continued to remain constant through out the quarter ( 81.93). However prices of Q3 declined by -16.98% when compared with the same period of 2014. This was primarily due to the decline in fuel surcharge.



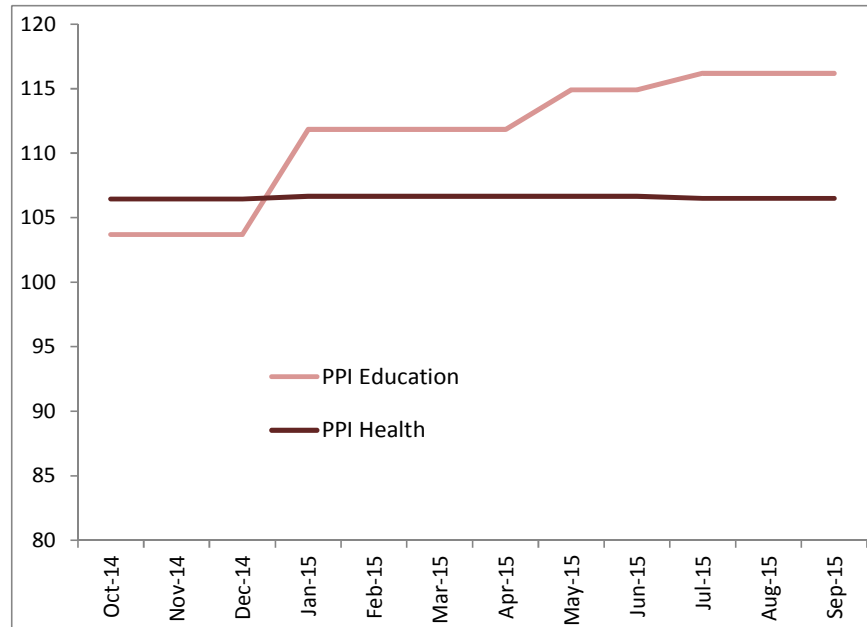
## 6. Education and Health

**F10: PPI - Education and Health**

Both Health and Education sector indices continued to remain constant during quarter 3 of 2015 at 106.50 and 116.18 respectively.

Prices of Health sector in Q3 increased marginally by 0.05% when compared to the same period of 2014. Health sector prices have remained constant since January 2015 and declined in July (-0.15%) and remained constant throughout quarter 3.

Prices of Education sector in July 2015 increased by 1.11% compared to previous month and remained constant throughout quarter 3.



## PPI Rebased to 2007

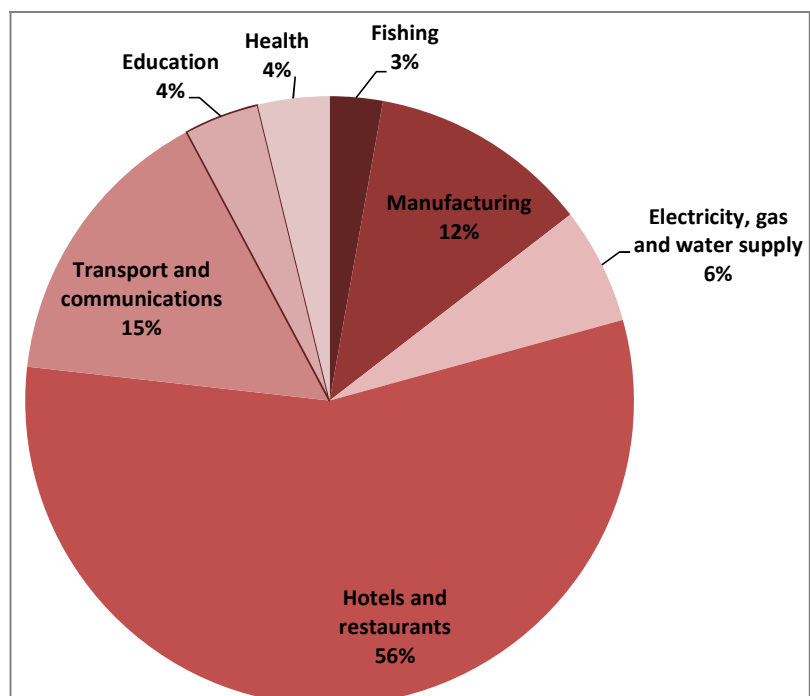
Producer price index (PPI) has been rebased to 2007 with price referenced to October 2012. The industry weights were drawn from the Maldives Supply and Use table (SUT) 2007 which was compiled under the ADB project 'RETA 6482 Supply and Use table for selected DMCs'. In SUT 2007, the data for the domestic production in the supply table as well as intermediate consumption in the use table were predominantly taken from the Economic Survey 2007 (ES).

The index is compiled from 554 transactions among 280 products from a sample of 83 establishments.

**F11: Weight structure**

Tourism is the main industry in the economy, contributing a third to its GDP. This sector accounts for about 56% of PPI weights, which therefore is the most influential sector and plays a major role in the movements of the overall index. Hence, it is crucial to comprehend the pricing strategies of the sector and how it feeds into the overall inflation.

Other prime sectors include transport and telecommunications sector and manufacturing sector with a weight of 15% and 12% respectively



## What is Producer Price Index

The Producer Price Index (PPI) measures the average change over time in the prices received by domestic producers of goods and services.

The PPI provides a weighted average of price change in a group of products between one time period and another. The average price change over time cannot be directly observed and must be estimated by measuring actual prices at different points in time. Price index numbers are compiled from the collected price observations through time. PPI is an index designed to measure the average change in the price of goods and services either as they leave the place of production or as they enter the production process.

PPI with detailed industry data will serve as a leading indicator of price change in the economy. The PPI enables business owners to make a comparison of trends in their own business with those of the industry group. It can be used as an escalator to index long-term contracts for goods and services. In this case, the PPI can be used to adjust the value of the monetary amounts stipulated in the goods and services based on the increase or decrease in the level of a specific index. Additionally PPI could be used as an important tool during the design and formulation of policies and analysis of inflation by the Maldives Monetary Authority and other governmental ministries

Price instability inherently introduces ambiguity into economic analysis and decision making, so the main use of PPI relate to efforts to reduce the uncertainty. PPI is used as a short-term indicator of inflationary trends in a wide spectrum of countries. It is also used in current cost accounting, indexation in legal contracts and as a national accounts deflator. Furthermore, it is used by researchers as well as the business community as an analytical tool to understand the situation of business.

The PPI does not represent prices at the consumer level - this is left to the Consumer Price Index (CPI). CPI is compiled on a monthly basis by National Bureau of Statistics (NBS) and released every month. Like the CPI, the PPI uses a benchmark year in which a basket of goods was measured, and every year after it is compared to the base year, which has a value of 100. For the PPI, that year is 2007.

Non-responding sample establishments are estimated by imputing the price changes at the establishment level or industry level. Revisions to the estimates are done upon receipts of actual reports from late respondents.

The current PPI produced by NBS is not without limitations. Those inbuilt in the system mainly arising from lack of adequate and clear information of the economic structure and players in the country, which determines the weight of the Index system and the sample frame. The limitations are stated in more detail in the methodology paper available on the website. To overcome these limitations, there is a need enhance the list of establishments in sample.

Producer' price indices are constructed from data collected through quarterly surveys of selected establishments. The establishment and product selection procedures and index calculation methods are available in the website [www.planning.gov.mv](http://www.planning.gov.mv).

## Measurement of changes in the price index

**Change over previous quarter (monthly)** compares the index of the month with that of the preceding month. Such comparisons measure the change in the average prices between two consecutive months. They serve as useful short-term indicators of the price movements in the non seasonal industries.

**Change over previous quarter (Quarterly)** compares the index of the quarter with that of the preceding quarter. Such comparisons measure the change in the average prices between two consecutive quarters. They serve as useful short-term indicators of the price movements.

**Change over same month of previous year (month on month)** compares the index of the month with same month of previous year. The measure gives how an industry is growing over 12 months. It reduces the seasonality effects in the indices, especially that in the tourism industry.



## Notes

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### FORTHCOMING ISSUES

**Issue (monthly)**

September 2015  
December 2015

**Release date**

31 December 2015  
31 March 2015

### ROUNDING

Any discrepancies between totals and sum of components in this publication are due to rounding.

### ABBREVIATIONS

|      |                               |
|------|-------------------------------|
| NBS  | National Bureau of Statistics |
| PPI  | Producer Price Index          |
| IMF  | International Monetary Fund   |
| SUT  | Supply and Use Table          |
| ADB  | Asian Development Bank        |
| RETA | Regional Technical Assistance |
| CPI  | Consumer Price Index          |

### ACKNOWLEDGEMENT

The release of the new PPI was made possible through the generous support of the government of Japan which financed the technical assistance provided by the International Monetary Fund (IMF). Consultant from IMF, Mr Brian E. Graf guided in the formulation and compilation of the index.

Industry Weights were developed by late Ms Zumloth Mohamed and Mr Ali Abdul Raheem. The entire process of data validation, compilation and updating has been done in close collaboration with all the data providing establishments. The initiation process was carried out by Ms Sajida Ahmed and Ms Hana Mansoor with the assistance of Ms. Aishath Laila, Ms. Maimoona Moosa and Ms Mariyam Mirfath. Establishment, product and transaction level weights were developed by Ms Sajida Ahmed. Data collection, verification and compilation has been carried out by Ms Sajida Ahmed and Ms Hana Mansoor with assistance from Ms. Hawwa Wifsha. The support provided by Mr. Paul Armknecht, IMF consultant and the developer of PIPS software, for the processing related issues is also duly recognized. Analysis and report writing together with methodology paper was formulated by Ms. Hana Mansoor. Additionally the indirect support rendered by all staff of 'Prices and Economics statistics unit' and National accounts unit are appreciable. Entire process from design to output was carried out with invaluable assistance from Ms Mariyam Niyaf.

Overall guidance and support throughout the development process was provided by Ms. Aishath Laila and senior management of statistics division Ms Aishath Shahuda and Ms Mariyam Niyaf. All their valuable services are gratefully acknowledged.

The quarterly Producer price Index is compiled by Ms Hana Mansoor under the supervision of Ms Aishath Shahuda.

**Producer Price Index** Base period =2007 | Price reference = October 2012

|   | Oct-12 | Sep-14 | Oct-14 | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>All Industries</b>                               | 100    | 97.98  | 103.30 | 105.01 | 109.20 | 116.19 | 116.66 | 116.95 | 109.10 | 99.05  | 97.45  | 99.95  | 103.42 | 100.36 |
| Fishing   | 100    | 92.62  | 97.50  | 88.75  | 95.11  | 96.39  | 99.69  | 93.31  | 88.41  | 100.56 | 92.55  | 79.96  | 99.42  | 93.76  |
| Manufacturing                                       | 100    | 86.65  | 95.85  | 89.40  | 91.74  | 91.81  | 92.71  | 87.61  | 83.27  | 89.84  | 86.97  | 94.11  | 90.19  | 92.53  |
| Processing and preserving of fish and fish products | 100    | 78.71  | 90.66  | 82.52  | 85.53  | 85.19  | 86.60  | 78.76  | 71.82  | 81.67  | 77.34  | 87.90  | 81.84  | 85.42  |
| Electricity, gas and water supply                   | 100    | 98.68  | 94.09  | 94.09  | 94.09  | 83.76  | 77.61  | 81.93  | 81.93  | 81.93  | 81.93  | 81.93  | 81.93  | 81.93  |
| Hotels and restaurants                              | 100    | 98.43  | 105.98 | 111.16 | 116.00 | 129.35 | 132.96 | 132.57 | 119.01 | 100.82 | 97.96  | 101.45 | 106.76 | 101.38 |
| Transport and communications                        | 100    | 103.06 | 102.89 | 100.83 | 106.84 | 108.58 | 102.31 | 108.67 | 109.35 | 99.78  | 104.24 | 103.85 | 106.01 | 105.11 |
| Education   | 100    | 103.71 | 103.71 | 103.71 | 103.71 | 111.84 | 111.84 | 111.84 | 111.84 | 114.90 | 114.90 | 116.18 | 116.18 | 116.18 |
| Health  | 100    | 106.44 | 106.44 | 106.44 | 106.44 | 106.56 | 106.66 | 106.66 | 106.66 | 106.66 | 106.66 | 106.50 | 106.50 | 106.50 |

**PPI - Percentage Change over previous month.**

|  | Sep-14 | Oct-14 | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>All Industries</b>                    | -3.80  | 5.44   | 1.66   | 3.99   | 6.40   | 0.41   | 0.25   | -6.71  | -9.22  | -1.61  | 2.57   | 3.47   | -2.96  |
| Fishing                                  | 2.16   | 5.27   | -8.98  | 7.16   | 1.35   | 3.43   | -6.41  | -5.25  | 13.74  | -7.97  | -13.60 | 24.34  | -5.70  |
| Manufacturing                            | -3.18  | 10.62  | -6.73  | 2.61   | 0.08   | 0.98   | -5.50  | -4.96  | 7.89   | -3.19  | 8.21   | -4.17  | 2.59   |
| Processing and preserving of fish & fish | -4.69  | 15.18  | -8.98  | 3.65   | -0.40  | 1.65   | -9.05  | -8.81  | 13.71  | -5.30  | 13.64  | -6.89  | 4.38   |
| Electricity, gas and water supply        | 0.00   | -4.65  | 0.00   | 0.00   | -10.98 | -7.34  | 5.56   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| Hotels and restaurants                   | -5.14  | 7.67   | 4.89   | 4.35   | 11.51  | 2.79   | -0.29  | -10.23 | -15.28 | -2.84  | 3.57   | 5.23   | -5.03  |
| Transport and communications             | -2.67  | -0.17  | -1.99  | 5.95   | 1.63   | -5.77  | 6.22   | 0.63   | -8.75  | 4.47   | -0.38  | 2.08   | -0.85  |
| Education                                | 0.00   | 0.00   | 0.00   | 0.00   | 7.84   | 0.00   | 0.00   | 0.00   | 2.74   | 0.00   | 1.11   | 0.00   | 0.00   |
| Health                                   | 0.00   | 0.00   | 0.00   | 0.00   | 0.20   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | -0.15  | 0.00   | 0.00   |

**PPI - Percentage Change-month on month**

|   | Sep-14 | Oct-14 | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>All Industries</b>                   | 5.93   | 0.37   | -0.23  | 2.11   | 2.96   | 4.87   | 3.94   | -2.07  | 1.20   | -2.34  | 3.45   | 1.54   | 2.44   |
| Fishing                                 | -18.30 | -0.26  | -13.29 | 5.11   | 6.52   | 11.95  | 2.74   | -5.14  | 1.53   | -4.87  | -14.07 | 9.66   | 1.23   |
| Manufacturing                           | -16.19 | -1.51  | -8.23  | -6.99  | 0.27   | 8.82   | -1.31  | -0.05  | -1.46  | -12.85 | 7.23   | 0.78   | 6.78   |
| Processing and preserving of fish and f | -25.72 | -4.38  | -13.11 | -11.77 | -0.28  | 14.23  | -2.95  | -2.57  | -3.46  | -21.04 | 9.68   | -0.89  | 8.54   |
| Electricity, gas and water supply       | -0.30  | -4.98  | -4.98  | -4.98  | -15.12 | -21.35 | -16.98 | -16.98 | -16.98 | -16.98 | -16.98 | -16.98 | -16.98 |
| Hotels and restaurants                  | 13.58  | 1.56   | 3.17   | 5.38   | 6.90   | 9.49   | 9.55   | -1.85  | 4.39   | -1.00  | 5.81   | 2.88   | 2.99   |
| Transport and communications            | 1.87   | -0.94  | -3.93  | -1.73  | -2.67  | -2.76  | -2.64  | 2.38   | -5.45  | 1.28   | 0.31   | 0.11   | 1.99   |
| Education                               | 1.75   | 1.75   | 1.75   | 1.75   | 10.39  | 10.72  | 10.72  | 7.79   | 10.95  | 10.79  | 12.19  | 12.02  | 12.02  |
| Health                                  | 2.04   | 1.06   | 1.06   | 1.06   | -0.37  | 0.20   | 0.20   | 0.20   | 0.20   | 0.20   | 0.05   | 0.05   | 0.05   |

Source: National Bureau of Statistics