

# Producer Price Index (PPI) - Maldives

Base period =2007 | Price reference = October 2012

**MARCH 2016**

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## KEY FIGURES

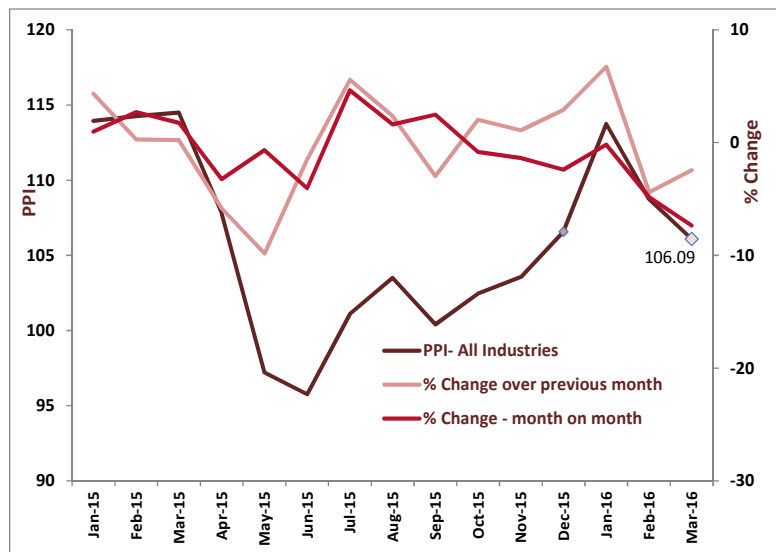
### PPI and Month on month Percentage Change

	PPI -All Industries		% Change
	2015	2016	2016/2015
Jan	113.94	113.75	-0.17
Feb	114.25	108.74	-4.82
Mar	114.50	106.09	-7.35

### Monthly PPI and Percentage Change

	PPI- All Industries	% Change over previous month	% Change - month on month
Jan-15	113.94	4.34	0.97
Feb-15	114.25	0.28	2.71
Mar-15	114.50	0.22	1.76
Apr-15	107.82	-5.84	-3.22
May-15	97.21	-9.84	-0.67
Jun-15	95.76	-1.49	-4.03
Jul-15	101.10	5.57	4.64
Aug-15	103.49	2.37	1.61
Sep-15	100.42	-2.97	2.49
Oct-15	102.45	2.03	-0.82
Nov-15	103.56	1.09	-1.38
Dec-15	106.57	2.90	-2.41
Jan-16	113.75	6.73	-0.17
Feb-16	108.74	-4.40	-4.82
Mar-16	106.09	-2.45	-7.35

F1: Monthly PPI and Percentage Change



## KEY POINTS — All Industries' PPI of Quarter 1, 2016

Producer Price index showed an increase in price throughout quarter 1, 2016 when compared to price reference (October 2012), with January as the highest index (113.75). However when comparisons were made to the same period of 2015, prices of all 3 months showed a decline with March showing the highest decline among all (-7.35%).

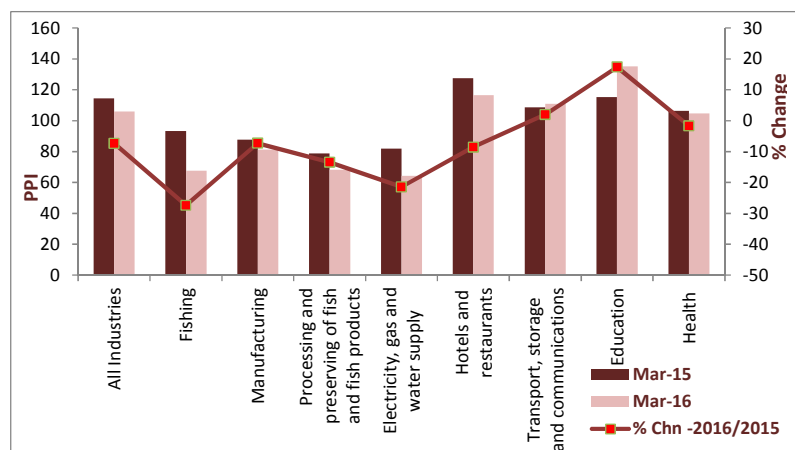
When Producer Price Index comparisons were made to the previous month, January prices increased by +6.73% while February and March prices showed a decline of -4.40% and -2.45% respectively.

## OVERVIEW OF MOVEMENTS— March 2015 and March 2016

F2: PPI and Percentage change –March 2016

While the Overall PPI of March showed a decline of -7.35% the most prominent price decline was seen in 'Fishing (-27.41%), Electricity, gas and water supply' industry (-21.46) and Manufacturing of fish products (-13.44%). Hotels and Restaurant industry prices showed a decline of -8.56%

The only two industries which showed an increase in this period was Education and Transport and communication with +17.38% and +2.03% respectively.



## 1. Hotels and Restaurants Industry

### OVERVIEW OF HOTELS AND RESTAURANTS INDUSTRY MOVEMENTS

Quarter 1, 2016 prices of Hotels and restaurants' industry were higher than the price reference month. When comparisons were made with the same month of 2015 all three months showed a decline with March with the most prominent decline (-8.56%). January exhibited a marginal decline (-0.98%) while February also showed a significant decline of -6.57%

When compared to previous month January 2016 prices went up by 12.22%. In contrast to the decline in prices of both February (-3.23%) and March (-2.46%) 2016.

#### PPI and Percentage change

	All Industries		Hotels & Restaurants			Tourist Arrivals ('000s)	Tourist Bednights ('000s)
	PPI	% Chn Month on month	PPI	% Change over previous month	% Chn Month on month		
Jan-15	113.94	0.97	124.82	7.60	3.15	97.07	630.84
Feb-15	114.25	2.71	128.02	2.56	5.42	120.47	682.42
Mar-15	114.50	1.76	127.58	-0.34	5.42	112.43	656.25
Apr-15	107.82	-3.22	116.32	-8.83	-4.07	102.24	602.84
May-15	97.21	-0.67	97.51	-16.16	0.97	95.39	556.79
Jun-15	95.76	-4.03	94.94	-2.64	-4.04	81.51	434.71
Jul-15	101.10	4.64	102.15	7.59	6.54	104.52	547.84
Aug-15	103.49	1.61	106.85	4.60	2.97	110.14	607.63
Sep-15	100.42	2.49	101.47	-5.03	3.08	95.51	524.08
Oct-15	102.45	-0.82	106.96	5.41	0.93	105.50	610.11
Nov-15	103.56	-1.38	107.66	0.65	-3.15	90.22	523.42
Dec-15	106.57	-2.41	110.14	2.31	-5.05	119.26	590.42
Jan-16	113.75	-0.17	123.60	12.22	-0.98	108.40	607.10
Feb-16	108.74	-4.82	119.60	-3.23	-6.57	120.64	692.22
Mar-16	106.09	-7.35	116.65	-2.46	-8.56	115.13	693.43

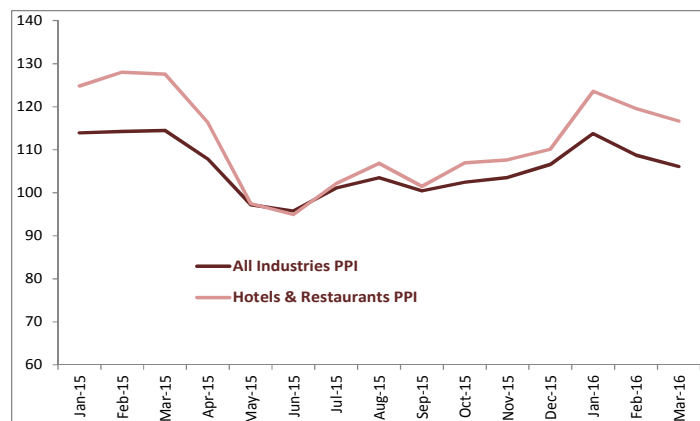
Hotels and Restaurants industry prices also shows the trend as the overall PPI. The industry's prices are demand driven and hence Q1 and Q4 prices are comparatively higher than Q2 and Q3.

### 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.

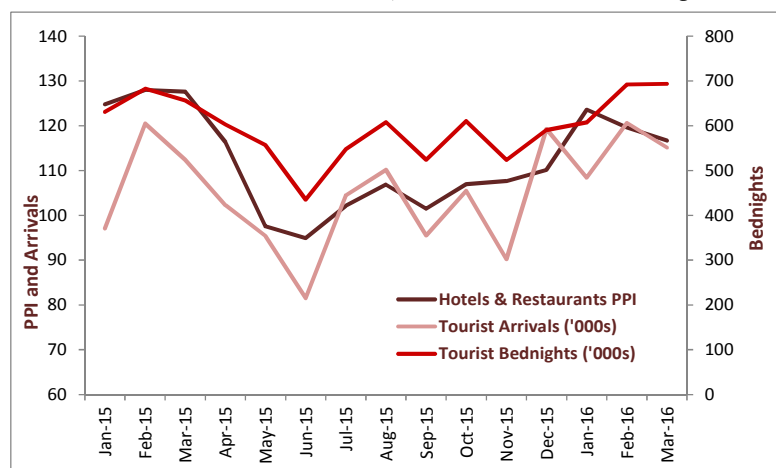


### COMPARISON WITH KEY SECTORIAL INDICATORS

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. In 2016 Tourist arrivals were highest in February (120,468) in Q1 while bed-nights was highest in March (693,425).

When compared to the same period of 2015, both Arrivals and bed-nights showed an increase in 2016. Arrivals showed a significant increase of +11.66% in January while bed-nights showed the most prominent increase in February (+14.02%).



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

### OVERVIEW AND INDUSTRY MOVEMENTS

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

Fishing prices of Q1 were lower than reference month. An all time month on month price fall was seen in March with -27.41% when compared to the same month in 2015. while February also showed a significant decline (-16.62%), January 2016 prices were +2.07% higher than January 2015.

Similar to fishing prices, prices of Processed fish in all three months of quarter 1 were lower than price reference. And all three months showed a decline in prices when compared to the same month of 2015 with more eminent price declines in March and February with -13.44% and -12.54% respectively. .

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

	PPI		% Chn - month on month	
	Fishing	Processed fish	Fishing	Processed fish
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
Oct-15	77.83	78.90	-20.18	-12.97
Nov-15	84.42	81.94	-4.88	-0.69
Dec-15	91.10	88.37	-4.21	3.32
Jan-16	98.39	84.18	2.07	-1.18
Feb-16	83.13	75.74	-16.62	-12.54
Mar-16	67.73	68.17	-27.41	-13.44

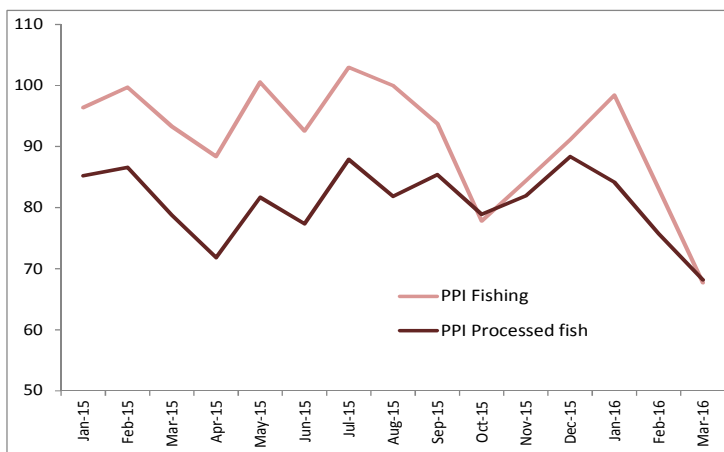
**Note:**

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

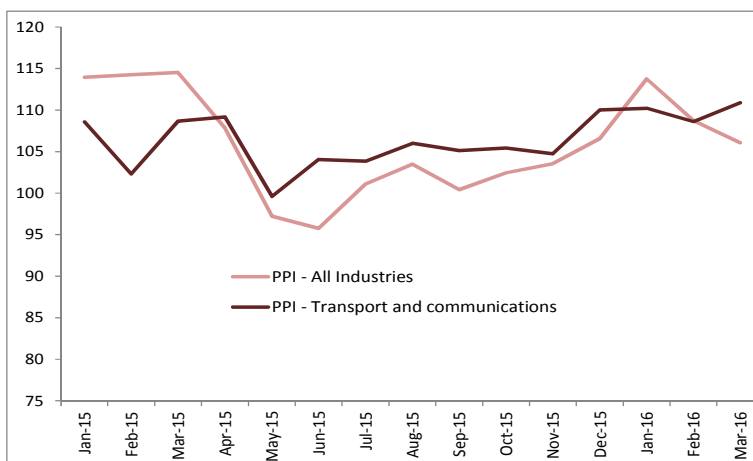
In quarter 1, transport and communication prices were higher than price reference (October 2012). February showed the highest price increase with +6.18% when compared to February 2015.

Both January (+1.51%) and March (+2.03%) also showed increase in prices when compared to the corresponding month of 2015.

**Note:**

For telecommunications sector average revenue is used as an indicator of price movements.

**F6: PPI — Transport and Communication**



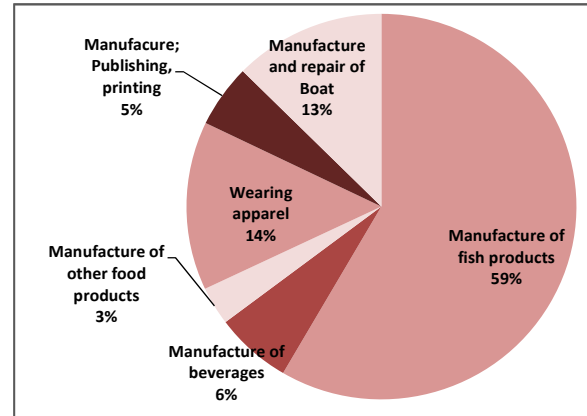
## 4. Manufacturing

**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 .



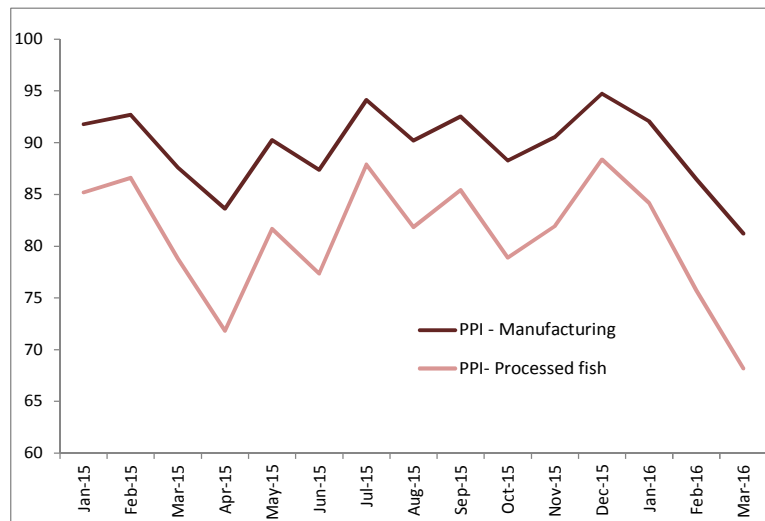
## OVERVIEW OF MANUFACTURING INDUSTRY MOVEMENTS

PPIs of manufacturing continued to remain lower than price reference in quarter 1 of 2016. Similar to PPI for Processed Fish, lowest PPI of Manufacturing industry for Quarter 1 2016 was in March. (81.22)

When comparisons were made with the same month of 2015, January price showed a marginal increase of +0.32%, while February and March prices went down by -6.71% and -7.29% respectively.

When comparisons were made with the previous month, all three months of Q1 showed a decline where February and March showed -6.10% and -6.08% respectively.

**F8: PPI - Manufacturing**

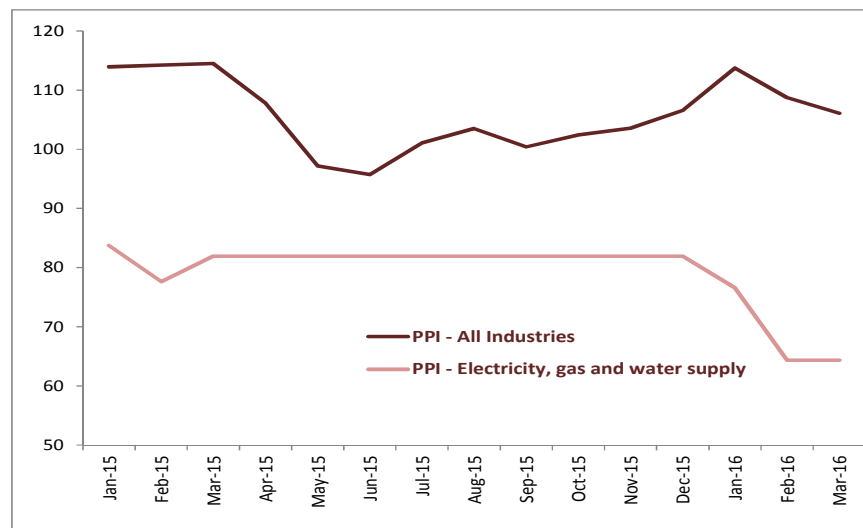


## 5. Electricity, Gas and Water Supply

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

Quarter 1 PPIs of 'electricity, gas and water supply' industry continued to remain lower than price reference. When compared with the same period of 2015, prices of January declined by -8.6% and February and March prices declined by -17.1% and -21.5% respectively.

The significant decline in February (-15.99%) compared to January 2016 was due the downward revisions made on tariff rates effective from February 1st, 2016.

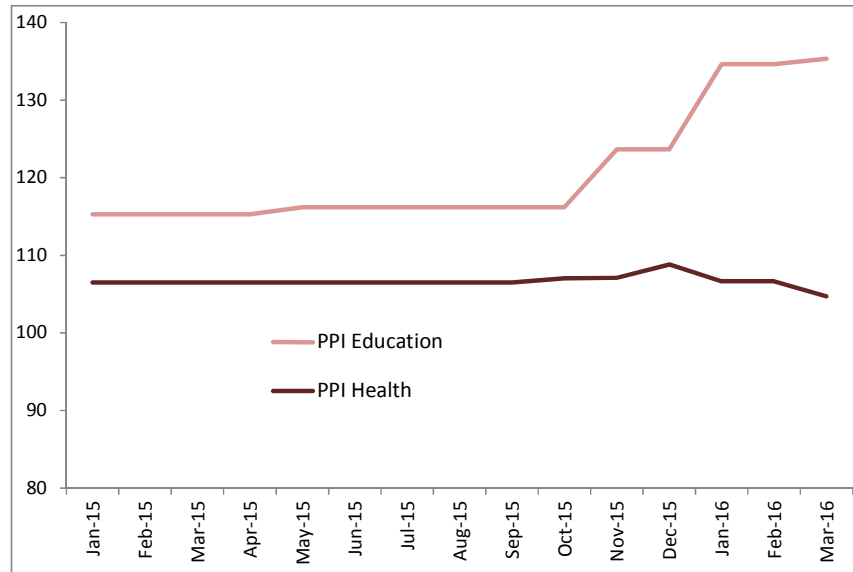


## 6. Education and Health

**F10: PPI - Education and Health**

Education sector index of January 2016 increased by +8.87% when compared to previous month and remained same in February. When month on month comparisons were made with 2015, both January and February prices rose by +16.77% and March prices went up by +17.38%

Prices of Health sector were constant in January and February which is an increase of +0.13% when compared to the same period of 2016. January prices decreased by -1.98% when compared to December 2015 and March prices declined by -1.83% compared to previous month.



## PPI Rebased to 2007

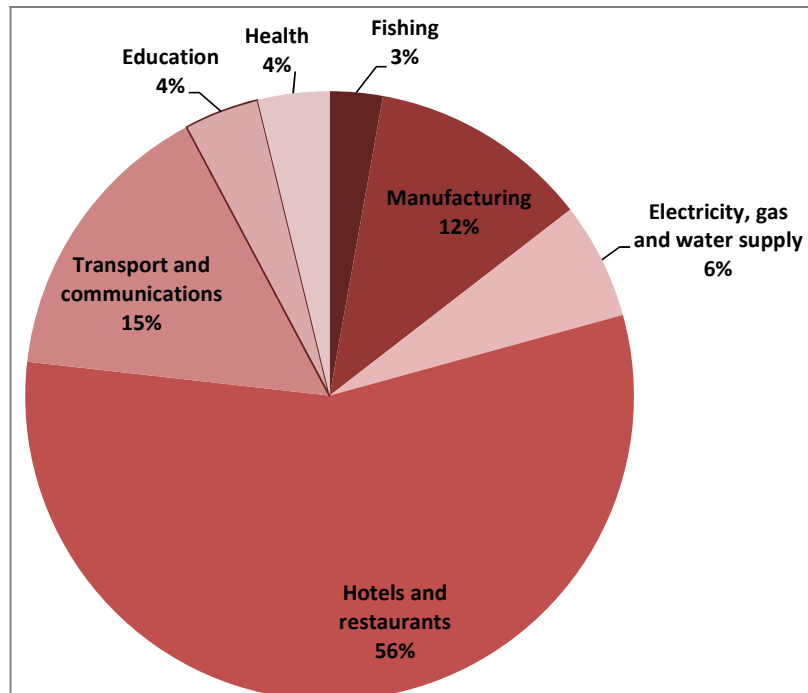
Producer price index (PPI) has been rebased to 2007 with price referenced to October 2012. The industry weights were drawn from the Maldives Supply and Use table (SUT) 2007 which was compiled under the ADB project 'RETA 6482 Supply and Use table for selected DMCs'. In SUT 2007, the data for the domestic 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.statisticsmaldives.gov.mv](http://www.statisticsmaldives.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.

### 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	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
<b>All Industries</b>	<b>100</b>	<b>113.94</b>	<b>114.25</b>	<b>114.50</b>	<b>107.82</b>	<b>97.21</b>	<b>95.76</b>	<b>101.10</b>	<b>103.49</b>	<b>100.42</b>	<b>102.45</b>	<b>103.56</b>	<b>106.57</b>	<b>113.75</b>	<b>108.74</b>	<b>106.09</b>
Fishing	100	96.39	99.69	93.31	88.41	100.56	92.55	102.98	99.97	93.76	77.83	84.42	91.10	98.39	83.13	67.73
Manufacturing	100	91.79	92.69	87.60	83.63	90.25	87.37	94.13	90.21	92.54	88.27	90.56	94.73	92.09	86.47	81.22
Processing and preserving of fish and fish products	100	85.19	86.60	78.76	71.82	81.67	77.34	87.90	81.84	85.42	78.90	81.94	88.37	84.18	75.74	68.17
Electricity, gas and water suppl	100	83.76	77.61	81.93	81.93	81.93	81.93	81.93	81.93	81.93	81.93	81.94	81.94	76.60	64.35	64.35
Hotels and restaurants	100	124.82	128.02	127.58	116.32	97.51	94.94	102.15	106.85	101.47	106.96	107.66	110.14	123.60	119.60	116.65
Transport and telecommunicat	100	108.58	102.31	108.67	109.16	99.60	104.05	103.85	106.01	105.11	105.41	104.73	110.00	110.21	108.63	110.87
Education	100	115.26	115.26	115.26	115.26	116.18	116.18	116.18	116.18	116.18	116.18	123.63	123.63	134.59	134.59	135.29
Health	100	106.50	106.50	106.50	106.50	106.50	106.50	106.50	106.50	106.50	107.03	107.10	108.79	106.64	106.64	104.69

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

	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
<b>All Industries</b>	<b>4.34</b>	<b>0.28</b>	<b>0.22</b>	<b>-5.84</b>	<b>-9.84</b>	<b>-1.49</b>	<b>5.57</b>	<b>2.37</b>	<b>-2.97</b>	<b>2.03</b>	<b>1.09</b>	<b>2.90</b>	<b>6.73</b>	<b>-4.40</b>	<b>-2.45</b>
Fishing	1.35	3.43	-6.41	-5.25	13.74	-7.97	11.27	-2.92	-6.21	-16.99	8.47	7.92	7.99	-15.51	-18.52
Manufacturing	0.06	0.98	-5.50	-4.53	7.92	-3.19	7.74	-4.17	2.59	-4.62	2.60	4.60	-2.79	-6.10	-6.08
Processing and preserving of fish & fis	-0.40	1.65	-9.05	-8.81	13.71	-5.30	13.64	-6.89	4.38	-7.64	3.86	7.84	-4.74	-10.03	-9.99
Electricity, gas and water supply	-10.98	-7.34	5.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-6.52	-15.99	0.00
Hotels and restaurants	7.60	2.56	-0.34	-8.83	-16.16	-2.64	7.59	4.60	-5.03	5.41	0.65	2.31	12.22	-3.23	-2.46
Transport and telecommunications	1.63	-5.77	6.22	0.45	-8.75	4.47	-0.20	2.08	-0.85	0.29	-0.65	5.04	0.19	-1.44	2.07
Education	11.14	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	6.41	0.00	8.87	0.00	0.52
Health	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.06	1.58	-1.98	0.00	-1.83

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

	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
<b>All Industries</b>	<b>0.97</b>	<b>2.71</b>	<b>1.76</b>	<b>-3.22</b>	<b>-0.67</b>	<b>-4.03</b>	<b>4.64</b>	<b>1.61</b>	<b>2.49</b>	<b>-0.82</b>	<b>-1.38</b>	<b>-2.41</b>	<b>-0.17</b>	<b>-4.82</b>	<b>-7.35</b>
Fishing	6.52	11.95	2.74	-5.14	1.53	-4.87	10.66	10.27	1.23	-20.18	-4.88	-4.21	2.07	-16.62	-27.41
Manufacturing	0.25	8.80	-1.33	0.38	-1.00	-12.45	7.25	0.79	6.80	-7.92	1.30	3.26	0.32	-6.71	-7.29
Processing and preserving of fish and	-0.28	14.23	-2.95	-2.57	-3.46	-21.04	9.68	-0.89	8.54	-12.97	-0.69	3.32	-1.18	-12.54	-13.44
Electricity, gas and water supply	-15.12	-21.35	-16.98	-16.98	-16.98	-16.98	-16.98	-16.98	-16.98	-12.93	-12.92	-12.92	-8.55	-17.09	-21.46
Hotels and restaurants	3.15	5.42	5.42	-4.07	0.97	-4.04	6.54	2.97	3.08	0.93	-3.15	-5.05	-0.98	-6.57	-8.56
Transport and telecommunications	-2.67	-2.76	-2.64	2.19	-5.63	1.09	0.31	0.11	1.99	2.45	3.86	2.96	1.51	6.18	2.03
Education	13.78	14.11	14.11	11.09	12.19	12.02	12.19	12.02	12.02	12.02	19.21	19.21	16.77	16.77	17.38
Health	-0.52	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.55	0.61	2.21	0.13	0.13	-1.70

Source: National Bureau of Statistics