

## 0. Prerequisites

### 0.1 Legal environment

#### 0.1.1 Responsibility for collecting, processing, and disseminating statistics

##### **Statistical Institute of Jamaica**

The Statistical Institute of Jamaica (STATIN) is created as a body corporate by the Statistics Act. Section 28 of the Interpretation Act defines the powers of a body corporate simply as having the rights as any legal person to hold property and to enter into contracts.

STATIN is granted the legal authority under the Statistics Act to take any Census, to collect, compile, analyze, abstract and publish statistical information relating to commercial, industrial, social, economic and general activities and condition of the people of Jamaica. In addition, Section 7 of the Act lists twenty-one areas on which STATIN has the authority, with the approval of the Minister to collect statistical information.

The taking of a Census is subject to the direction of the Minister, and by Ministerial Order, the Regulations determine the content and administrative arrangements.

#### 0.1.2 Data sharing and co-ordination among data producing agencies

The Statistics Act provides for coordination, collaboration with public agencies in the collection, compilation and publication of statistical information including statistical information derived from activities of such agencies. (administrative data)

#### 0.1.3 Confidentiality of individual reporters' data

Section 17 of the Statistics Act, mandates that STATIN shall not publish or otherwise make available to any person statistics that would enable the identification of any person or business.

To balance STATIN's extensive powers to collect information, mostly through mandatory reporting, the Statistics Act establishes the rigorous legal obligation for the Agency to keep the respondent's information in trust. The legislation makes a formal commitment to respondents that the information they provide will never be released to anyone in a form that will identify them without their authorization. Respondents who believe that providing the Agency with information will not identify them are much more likely to

<p>0.2 Resources</p> <p>0.3 Relevance</p> <p>0.4 Quality management</p>	<p>answer truthfully and to cooperate with the collector.</p> <p>Much of the Agency's credibility rests on confidentiality protection as a bedrock condition of operation. Given its critical importance, this commitment to confidentiality is found not only in the law but also in the culture of STATIN.</p> <p>0.1.4 Ensuring statistical reporting</p> <p>STATIN has the authority to require an individual or establishment to supply particulars for Census or other statistical collection in accordance with the Act.</p> <p>0.2.2</p> <p>STATIN is funded mainly from the national budget, however, where necessary STATIN seeks technical assistance from international agencies to introduce or improve systems.</p> <p>0.3.1 Monitoring user requirements</p> <p>Feedback is sought from various customers via the Communications and Marketing Unit as a means of improving the provision of statistical products. Targeted stakeholders' sessions are also hosted to get feedback on the work of the organization.</p> <p>0.4.1 Quality policy</p> <p>The Statistical Institute of Jamaica is currently developing a Quality Assurance Framework for its statistical products and processes. This is based largely on the generic National Quality Assurance Framework developed by an expert group of the United Nations Statistical Commission. The Statistical Institute of Jamaica is also in the process of adopting the Code of Good Practice in Statistics for Latin America and the Caribbean developed by the Working Group on Institutional Strengthening of the Economic Commission for Latin America and the Caribbean (ECLAC). These initiatives aim to improve the overall quality of official statistics on Jamaica.</p> <p>0.4.2 Quality monitoring</p> <p>The quality of the programme is evaluated against constraints.</p>
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	<p>STATIN currently applies various quality assurance techniques to the production of official statistics to ensure that the information produced is of the highest standard. Other initiatives to improve and maintain the quality of the data produced by STATIN include continuous staff training, participation in local and international courses, meetings and workshops.</p>
<p><b>1. Integrity</b></p>	
<p><u>1.1 Professionalism</u></p>	<p>1.1.1 Impartiality of statistics</p> <p>The Statistical Institute of Jamaica acts independently to establish the methods used in data estimation as well as the timing and content of all data releases.</p> <p>1.1.2 Selection of sources, methodology, and modes of dissemination</p> <p>Section 8 of the Statistics Act gives STATIN the authority for statistics collected under the Act to be compiled, tabulated and published in such manner as STATIN may determine.</p> <p>1.1.3 Commenting on erroneous interpretation and misuse of statistics</p> <p>STATIN has the authority to comment on erroneous interpretation and misuse of statistics.</p>
<p><u>1.2 Transparency</u></p>	<p>1.2.1 Disclosure of terms and conditions for statistical collection, processing, and dissemination</p> <p>The Statistics Act is available on the website. For more information please visit: <a href="http://www.statinja.gov.jm">http://www.statinja.gov.jm</a></p> <p>1.2.2 Internal governmental access to statistics prior to release</p> <p>Advanced copies of the publications are sent to the Minister with portfolio responsibility for STATIN, the Ministry of Finance and Planning, the Office of the Prime Minister as well as to the Bank of Jamaica and the Planning Institute of Jamaica not more than twenty four hours before the official press release to the general public. This access is however granted under strict embargo to prevent the unauthorized distribution of pre-release data.</p> <p>1.2.3 Attribution of statistical products</p> <p>The Statistical Institute of Jamaica is clearly identified by the STATIN logo and corporate image on all disseminated statistics</p>

	<p>produced and released by the Agency. Organizations or individuals using data produced by STATIN are required to cite the Statistical Institute of Jamaica as the data source. The dissemination of STATIN's data is not accompanied by any ministerial commentary. The Minister does not influence what is included or excluded from these statistical reports.</p> <p>1.2.4 Advance notice of major changes in methodology, source data, and statistical techniques.</p> <p>Major revisions to the methodology source data and statistics are made available to the users.</p>
<p><u>1.3 Ethical standards</u></p>	<p>1.3.1 Guidelines for staff behavior</p> <p>Prior to the execution of a contract of employment (permanent staff) or contract employment persons are required to complete a Form of Oath pursuant to Section 9 of the Statistics Act and Declaration pursuant to Section 2 of the Official Secrets Act.</p> <p>Both statutory provisions require that employee shall not disclose or make known any matter which come to their knowledge by reason of their employment to STATIN.</p> <p>In the event of the breach of this provision the Act also provides for criminal prosecution.</p>
<p><b>2. Methodology</b></p>	
<p><u>2.1 Concepts and definitions</u></p>	<p>2.1.1 Concepts and definitions</p> <p>Scope of the data</p> <ul style="list-style-type: none"> <li>• The Producer Price Index (PPI) represents a family of index numbers that measure the average change over time in the selling price received by domestic producers of goods and services. The PPI that has been developed by STATIN is an output PPI, estimated from the basic price of selected products sold both on the domestic and export markets. The index is industry-based with each establishment classified according to its main activity. The Jamaica Industrial Classification (JIC 2005) is used to group economic activities and products and to provide an organizational structure for the PPI. This classification is a local adaptation of the United Nations International Standard Industrial Classification of all Economic Activities (ISIC Rev. 3).</li> </ul>

**Industrial coverage:** The Producer Price Index covers two industries in the goods-producing sectors of the Jamaican economy: - “Mining & Quarrying” and “Manufacturing”.

**Product coverage:** The product coverage consists of the major industrial goods mined and manufactured in Jamaica.

The Mining and Quarrying industry is represented by two major groups:

- i. Bauxite Mining & Alumina Processing (Alumina Processing is a manufacturing activity, but is included in ‘Mining and Quarrying’ due to the nature of the industry in Jamaica).
- ii. Other Mining and Quarrying.

For the Manufacturing industry, indices are derived for ten (10) major groups. These are:

- (i) Food, Beverages and Tobacco
- (ii) Textile, Wearing Apparel and Leather Products
- (iii) Wood, Wood Products and Furniture
- (iv) Paper and Paper Products
- (v) Chemicals and Chemical Products
- (vi) Refined Petroleum Products
  
- (vii) Rubber & Plastic Products
- (viii) Other Non-Metallic Mineral Products
- (ix) Fabricated Metal Products excluding Machinery and Equipment
- (x) Other Manufacturing n.e.c.

An index is derived and published for the industries, major groups, and sub-groups listed below:

<b>INDUSTRY</b>
<b>MINING &amp; QUARRYING</b>
Bauxite Mining & Alumina Processing
Other Mining & Quarrying
<b>MANUFACTURING</b>

<b>Food, Beverages &amp; Tobacco</b>
Production, Processing & Preserving of Meats, Fish, Vegetables, Oils and Fats
<i>Meat &amp; Meat products and Fish &amp; Fish Products</i>
<i>Fruits &amp; Vegetables and Animal &amp; Vegetable Oils &amp; Fats</i>
Manufacture of Dairy Products
Manufacture of Grain Mill Products, Starches and Starch Products
Manufacture of Other Food Products
<i>Bakery Products</i>
<i>Sugar, Cocoa, Coffee, Chocolate, &amp; Sugar Confectionery</i>
<i>Seasoning, Spices, Sauces and Condiments</i>
<i>Macaroni, Noodles, Couscous &amp; Other Food Products n.e.c</i>
Manufacture of Beverages and Tobacco
<b>Textile, Wearing Apparel and Leather Products</b>
<b>Wood, Wood Products and Furniture</b>
<b>Paper and Paper Products</b>
<b>Chemicals and Chemical Products</b>
<b>Refined Petroleum Products</b>
<b>Rubber &amp; Plastic Products</b>
<b>Other Non-Metallic Mineral Products*</b>
<b>Fabricated Metal Products excl. Machinery &amp; Equipment</b>
<b>Other Manufacturing n.e.c.</b>

\*Other Non-Metallic Mineral Products including cement and concrete.

**Transaction coverage:** The PPI is an output PPI estimated from the basic price of selected products that is, the per unit revenue received by the producer from production. It is also an industry based index.

**Geographic coverage:** The establishments selected for inclusion in the PPI are from urban and rural areas across the island.

Exceptions to coverage:

	<ul style="list-style-type: none"> <li>• Industrial coverage: Currently, the PPI does not cover all industries.</li> <li>• Establishment coverage: Establishments that employ less than 10 persons are currently not covered in the PPI.</li> </ul>
<p><u>2.3</u> <u>Classification/sectorization</u></p>	<p>2.3.1 Classification/sectorization</p> <p>The Jamaica Industrial Classification (JIC 2005) which is based on the International Standard Industrial Classification (ISIC Rev. 3) is used to group economic activities.</p>
<p><u>2.4 Basis for recording</u></p>	<p>2.4.1 Valuation</p> <p>The producer's price used in the computation of the PPI is the amount received by the producer from the purchaser for a unit of good or service produced as output. It excludes all deductible taxes, the retail and wholesale margins and separately billed transport and insurance charges.</p> <p>The prices collected for the PPI represent the last transaction price for the first full week <del>of the reference month</del> or the average price for the reference month.</p> <p>Producer prices are either:</p> <ul style="list-style-type: none"> <li>• List Price (Manufacturer's suggested retail price) A list price is the price of a product as quoted in the producer's price list, catalogue, internet site etc.</li> <li>• Actual Transaction Price (Market Price) The actual transaction price or market price is the price as determined by buyers and sellers in an open market.</li> <li>• On-going Contract This is an arrangement where the establishment agrees to sell the product to the wholesaler for a particular price over a specified period of time.</li> </ul> <p>These prices are gross and are exclusive of all discounts, surcharges</p>

and rebates that might apply in the actual transaction.

#### 2.4.2 Recording basis

Timing of price observations: Most price collection is done monthly, however, to reduce respondent fatigue prices are collected less frequently in those cases where price changes occur at specific intervals for example, quarterly or annually. Price collection spans a one week period.

### 3. Accuracy and reliability

#### 3.1 Source data

##### 3.1.1 Source data collection programmes

**Sources of Weights:** In computing the PPI, weights are calculated at the level of the major group, group, sub-group, product group, establishment and product. The weights for the major group, group, sub-group and product group are derived from the national accounts gross output estimates while the establishment weights are derived from sales data. At the product level, the weights are based on their contribution to the total sales of the establishment. Products are further classified as domestic or export based on the market in which they are sold and this information is provided by the establishment.

**Time Period of Current weights:** The base year used for the PPI is 2008 and the base year price is the average of the monthly selling price for all twelve months of 2008. For the previous series the base year was 2005. Linking coefficients were used to compile a historic series back to 2005. The process involved calculating the higher level indices on both the old and new weights for an overlap period.

**Establishment Selection:** The sample frame for the PPI is the Statistical Institute of Jamaica's Central Register of Establishments which organizes these establishments into industries based on their main economic activity. The sample is selected from the total number of large establishments employing 10 or more persons that are engaged in mining & quarrying and manufacturing.

**Product selection:** After establishments are selected for inclusion in the PPI survey, initialization is undertaken to solicit the

	<p>necessary cooperation needed to collect prices on a regular basis. The purpose of the initialization process is to gather information, mainly on the types of products being manufactured, their specification, and the importance of the products to overall sales.</p> <p><b>Sample Design:</b> The sample design for the PPI incorporates stratification by Industry and Size. A two-stage sampling procedure is employed in the selection of the establishments and products from their respective industries. A non-probability sampling approach was followed in the selection of the establishments and products for the PPI with sample selection based on the availability and representativeness of the establishments and products.</p> <p><b>Sample Size:</b> Each month approximately 128 establishments are asked to provide over 400 price quotations. The establishments selected for inclusion in the PPI are from both urban and rural areas across the country.</p> <p><b>Price Collection Method:</b> Prices are collected on a monthly basis after establishments have been initialized. Data collected for the compilation of the PPI represents the last transaction price for the first full week of the reference month. Data are collected using STATIN's Electronic Data Collection System (EDaCs).</p> <p>Other means of price collection are done in-house by means of email and via telephone for selected establishments.</p> <p>3.1.3 Source data timeliness</p> <p>Data is collected for the first full week of the reference month.</p>
<p><u>3.2 Assessment of source data</u></p>	<p>3.2.1 Source data assessment</p> <p>Prices are first scrutinized by field personnel for consistency and accuracy. Staff at the Head Office verifies price data that have been returned by field personnel for unusual price changes. They also monitor changes in product specification or changes in terms of transactions. If needed respondents and field officers are contacted by telephone to validate the accuracy and reliability of the price data collected. Additional checks and queries are made during data</p>

	entry to ensure that accurate data are captured.
<u>3.3 Statistical techniques</u>	<p>3.3.1 Source data statistical techniques</p> <p><b>Missing prices:</b> The price of a product may not be collected in some period because the product is missing temporarily or because the production of a particular product has been discontinued. The two classes of missing prices require different treatment.</p> <ul style="list-style-type: none"> <li>• When a price observation is temporarily unavailable in a given month, its price is imputed based on the price movement of the other products in the same product group.</li> <li>• When the price observation has permanently disappeared a substitution is obtained or the product is removed.</li> </ul> <p>In both instances the last observed price might be carried forward (this is only used as a last resort).</p> <p><b>Quality Adjustment:</b> A quality change in a product occurs when the change in specification has resulted in a significant difference in the functionality (utility) to the consumer between the new variety of the good and the one that had previously been selected.</p> <p><u>Imputation:</u> Where no information is available to allow reasonable estimates to be made of the effect on price of a quality change, the price changes of all products, or of more or less similar products, are assumed to be the same as that for the missing product;</p> <p><u>Overlap:</u> Where no information is available to allow reasonable estimates to be made of the effect on price of a quality change, but where a replacement product exists in the same period as the old product, the price difference between the old product and its replacement in the overlap period is then used as a measure of the quality difference;</p> <p><u>Direct comparison:</u> If another product is directly comparable, that is, it is so similar that it can be assumed to have had more or less the same quality characteristics as the missing one; its price replaces the unavailable price. Any difference in price level between the new and old is assumed to arise from price changes and not quality differences;</p> <p><u>Explicit quality adjustment:</u> Where there is a substantial difference between the quality of the old and replacement products, estimates of the effect of quality differences on prices are made to enable quality-adjusted price comparisons to be made.</p>

	<p><b>Establishment Substitution:</b> Establishments are substituted when:</p> <ul style="list-style-type: none"> <li>○ Owners/operators are uncooperative.</li> <li>○ Products required for PPI are not available.</li> <li>○ Establishments go out of business.</li> </ul> <p>The experienced field officers recommend suitable replacements.</p> <p>3.3.2 Other statistical procedures</p> <ul style="list-style-type: none"> <li>• Base Year: 2008=100.</li> </ul> <p>The index is calculated with the application of a modified Laspeyres formula which combines price relatives and weights derived from the base period.</p>
<p><u>3.4 Data validation</u></p>	<p>3.4.1 Validation of Intermediate Results</p> <p>Verification of Procedures: All prices are verified by interviewers and at Head Office for reasonableness. Price changes are also reviewed by experienced staff members for consistency with external information.</p> <p>3.4.3 Assessment of discrepancies and other problems in statistical outputs</p>
<p><b>4. Serviceability</b></p>	
<p><u>4.1 Periodicity and timeliness</u></p>	<p>4.1.1 Periodicity</p> <p>A monthly bulletin and an annual report with data for the calendar year are published.</p> <p>4.1.2 Timeliness</p> <p>The monthly bulletin is published with a one (1) month lag and is available by the fourth week after the reference month.</p>
<p><u>4.2 Consistency</u></p>	<p>4.2.1 Internal consistency</p>

	<p>Detailed indices are published for the Mining &amp; Quarrying and Manufacturing industries. Contributions to change in the index are analyzed in the monthly bulletin, and in the “PPI Annual Review”. The weights are published in both the Bulletin for the end of each quarter and the Annual Review while the Methodology is published in the Annual Review.</p> <p>4.2.2 Temporal consistency</p> <p>The monthly publication “The Producer Price Index Bulletin” contains data on the current index for Mining &amp; Quarrying and Manufacturing. The historic series is linked back to January 2005. This data can be obtained in the Producer Price Index Special Report 2005-2007.</p> <p>4.2.3 Inter-sectoral and cross-domain consistency</p> <p>The PPI data that is published is consistent with the concepts and definitions of the IMF PPI Manual, other price statistics such as the Consumer Price Index and the National Accounts. Market reports and media articles as well as other external data sources are used in the process of analysis and compilation.</p>
<p><u>4.3 Revision</u></p>	<p>4.3.1 Revision schedule</p> <p>Revision policy: Revisions are carried out to incorporate the most current information. The first published monthly index is preliminary and is subject to two (2) revisions after the original release. At the end of the calendar year a final revision is done.</p> <p>4.3.2 Identification of preliminary and/or revised data</p> <p>In the monthly PPI Bulletin wherever revisions occur they are noted.</p>
<p><b>5. Accessibility</b></p>	
<p><u>5.1 Data</u></p>	<p>5.1.1 Statistical presentation</p> <p>Monthly and annual data on the PPI are compiled and disseminated by the Statistical Institute of Jamaica (STATIN). PPI data are</p>

presented in the following formats:

**Monthly Bulletin**:-This gives a comprehensive description of the index for two industries; Mining & Quarrying and Manufacturing. Graphical and tabular presentations are included for the two industries. A brief analysis of the price movements that occur each month is also given. At the end of each quarter an analysis of the quarterly movements is presented.

**Press release**: - The monthly Producer Price Index Bulletin and Press Release are available at <http://www.statinja.gov.jm>; <http://statinja.gov/Pressreleases.apx>

**Annual Review**: - The Annual Review gives a detailed analysis of factors affecting price movements in the industries for the calendar year. Calendar year, fiscal year-to-date, point-to-point and mean annual percentage movements are also presented. Tables and charts are also included which depict the monthly and quarterly index and the corresponding movements for the current calendar year and the previous year. The Methodology for the computation of the PPI and the weights for all the major groups are also included in the Annual Review.

**Special Report**:- “Producer Price Index Special Report January – April 2013”

- The series presented in this report reflects the revisions that were made to the PPI for the Manufacturing and Mining and Quarrying industries. These revisions include a change in the base year from 2005 to 2008, adjustment to the sample frame and a comprehensive revision of the weighting structure at the different levels. The classification system was changed from the Jamaica Industrial Classification (JIC) 1987 to the Jamaica Industrial Classification (JIC) 2005.
  
- “Producer Price Index Report 2005-2007”

This special report entailed the launch of the Producer Price Survey which began in late 2004. Prices were collected for two industries; Mining & Quarrying and Manufacturing industry.

5.1.2 Dissemination media and format

	<p>All publications of the PPI are available in hard copy and electronic formats. Including:</p> <ul style="list-style-type: none"> <li>➤ The Monthly Producer Price Index Bulletin</li> <li>➤ The Producer Price Index Annual Review</li> </ul> <p>Publications are available in English, from the Marketing and Communications Unit of the Statistical Institute of Jamaica - 7 Cecelio Avenue. Kingston 10, Jamaica. Tel. (876-630-1600) Fax (1-876-926-1138) Email: <a href="mailto:info@statinja.gov.jm">info@statinja.gov.jm</a>.</p> <p><b>Electronic – Other</b></p> <p>Monthly Producer Price Index Bulletin Press Release is available at <a href="http://www.statinja.gov.jm">http://www.statinja.gov.jm</a>; <a href="http://statinja.gov/Pressreleases.apx">http://statinja.gov/Pressreleases.apx</a></p> <p>Various ad-hoc requests are also supplied.</p> <p><b>5.1.3 Advance Release Calendar</b> The precise release dates for the next six months are available on the website <a href="http://www.statinja.gov.jm">www.statinja.gov.jm</a></p> <p><b>5.1.4 Simultaneous Release</b> The Statistical Institute of Jamaica strives for the simultaneous release of statistical information to the public. Statistical information is usually released via the media, the web and the STATIN library on the scheduled day of release at 3:30 p.m. All intergovernmental sharing of data prior to the official public release are treated as confidential, and under embargo.</p>
<p><u>5.2 Metadata</u></p>	<p>5.2.1 Dissemination of documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques</p> <p>A detailed statement of methodology is included in the Producer Price Index Annual Review Publication.</p> <p>Changes in methodology and revisions to international classifications are published in the Annual Review.</p>

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