

Planned changes to the Producer Price Index

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A. Introduction

The South African PPI has been published in some form for at least 100 years. It is currently published as four main sets of tables. These are the domestic output PPI, the import PPI, the export PPI, and two tables of specific construction-related materials. In 2009 a review of the PPI was conducted. Based on this it was decided to integrate the PPI more closely with the system of national accounts and initiate a number of other improvements. This document outlines the methods and structures for a new set of producer price indices.

B. Main changes to be introduced

In addition to the reweighting of the index, the new PPI will be different in format and product composition from the current version. The new format PPI is designed to be in line with accepted practice in the international statistical community.

1. Format

Businesses are grouped into industries according to the extent that they produce related outputs. The current, aggregate, headline PPI cannot be said to represent the sales of any particular business type. It is standard international practice to rather produce PPIs for specific industries, and not one for the economy as a whole.

The main focus of the PPI is on tracking prices of domestically produced goods. These goods may be sold to either local or foreign customers. The domestic output PPI therefore captures both local sales and exports. Stats SA will continue to publish a dedicated export, and import, price index (see paragraph 2 below).

The new format of the PPI for domestic output will not contain an aggregate PPI but instead will consist of five separate PPIs. This is based on the 'stages of production' concept. 'Stages of production' separates the economy into distinct industries which have an input-output relationship with each other. It separates the primary industries from those in which there is further transformation of products. The new indices comprise:

- Agriculture, forestry and fishing
- Mining and quarrying
- Electricity and water
- Intermediate manufactured goods or goods for further processing - i.e. those manufactured products that serve mainly as an input into further manufacturing, and
- Final manufactured goods - i.e. those manufactured products that are mainly for final demand and are not incorporated into further production.

The PPI for final manufactured goods will be the new headline PPI as this best represents the effects of price changes through the five stages of production.

2. Export and Import indices

The current import and export price indices will be replaced by unit value indices (UVIs). UVIs are calculated on the basis of customs information sourced from the South African Revenue Service (SARS). The weights of the UVIs are derived from the value of the products exported or imported. The unit values are derived from the value divided by the quantity of a specific product in a specific month for a specific exporter or importer per product group. Only the product groups (and not the individual traders) are weighted. The geometric means of the price relatives of individual unit values provide the monthly changes in the index.

Unit value indices have the advantage of being based on the population of all transactions and not just a sample. They therefore have complete coverage when compared with traditional price indices.

Only the export UVI will be ready for release with the revamped PPI. In the meantime, the current import PPI table will be continued. We anticipate that the import UVI will be ready for launch in 2013.

3. Newly calculated weights

The weights for the PPI are calculated at two levels. At the *industry* level the weights are calculated on the proportion of value added as reflected in the national accounts. Supply and use tables are used to differentiate the output of the manufacturing industry in respect of goods produced primarily for further processing and goods produced primarily for final demand.

At the *product* level, the weights assigned to different products are derived from the turnover on products as captured by Stats SA's large sample surveys (LSS) or data obtained from industry sources.

In future, Stats SA will update the higher level weights with the most recent annual national accounts data, and the product weights with any relevant data that are available. Weights updates will take place in the January PPI publication each year and the indices will be chain linked.

4. Updated classification

The PPI uses two sets of classifications. The Standard Industrial Classification (SIC) is used as the classification system at a publication level for *industries*. The Central Product Classification (CPC) is used as the classification system for *products*. The new PPI will use version 2 of the CPC, which is an update of version 1.1 used currently. The differences in the two versions are not substantial as far as they affect the South African PPI. All sub-indices will therefore correspond to CPC v2 in an aggregate form.

5. A new set of products (basket) for each of the PPIs.

The PPI basket (domestic output) currently contains about 800 different 'indicator' products (lowest level at which weights are available). Index number practice shows that there is little point in collecting data on items that have a weight of less than 0,1% of the entire basket, as their price movements, no matter how dramatic, will have virtually no effect on the index.

The new basket has been selected on the basis of those products which showed a significant weight within each of the five main industries. The product list is not intended to be exhaustive, but rather each product is selected to be representative of others within its class. The full list of products is attached as Appendix A. The total number of indicator products is 273, compared with the previous list of about 800. However, 212 of the products in the new basket also appear in the old basket. The reduction in the number of 'indicator' products means that it is possible to collect significantly more prices for each indicator product, thereby improving the robustness of the index.

6. Tables of selected building materials

Stats SA currently publishes Tables 11 and 12 of the PPI as an additional service for users. This information is mainly used for contract escalations and there are a limited number of products in this table that also appear in the main PPI. Consequently, Tables 11 and 12 will not be significantly affected by the current changes to the PPI.

However, Stats SA wishes to improve the quality of these tables and the fashion in which changes are made to them. To this end, Stats SA is establishing a steering committee comprising major industry associations that advise companies on contract adjustments. This steering committee will consider requests and recommendations for changes to the product composition and subweightings of these tables.

7. New base year

The base year refers to a price reference period. This is a period in which the indices average 100 for the year. The base year for the new PPI will be 2011 assuming publication during 2012.

8. Time series information

The introduction of the new PPI will in effect be a new PPI series. This implies that there will be a break in the official PPI series. To assist data users in managing this break Stats SA will provide:

- Indices for the new series starting from January 2011 using all new products;
- Indices extending back to 2009 using the historical prices but new weights and format; and
- Factors to link specific indices in the old and new series on request.

In addition to the time series information, Stats SA will publish a comprehensive methods and sources document for the PPI. This manual will provide an explanation of all aspects of the PPI from composition of the basket and weights through to the mechanics of its compilation.

9. Behind-the-scenes enhancements

Stats SA is taking the opportunity of this PPI overhaul to introduce a number of improvements to its PPI data collection and management. To facilitate the production of a high quality PPI the following developments are being introduced:

- New capturing and database system;
- Enhanced data collection methodology with greater focus on actual transaction prices, which accounts for discounts and excludes distribution-related costs;
- Improved process for data collection including dispatch and receipt of questionnaires by email;
- Greater number of prices per indicator product; and
- Improved quality controls and editing processes.

C. Services PPIs

In the medium term, Stats SA plans to expand the number of industries for which PPIs are published – services industries in particular. During 2012, Stats SA will begin research work on the compilation of PPIs for specific services. The timing of these has not yet been determined but will largely be influenced by the availability of results from Stats SA's large sample surveys.

Among the first to be developed will be PPIs for construction services and business services.

D. Launching the revamped PPI

Stats SA's work programme as tabled in Parliament sets the date for delivery of the new PPI as January 2013. However, it is anticipated that the new PPI will be ready for publication in mid 2012.

The new indices will be published as soon as they are ready. This has the advantage of providing the public with more reliable data sooner. There will be no revision of the published indices for the first half of 2012. The annual average PPI, which is published at the end of a calendar year, will be based on the new indices.

Some months prior to the publication of the new PPI, Stats SA will communicate the final weights and publication format.

end

APPENDIX 1

New PPI Product list	
Table	Product
Agriculture, forestry and fishing	Apples
Agriculture, forestry and fishing	Bananas
Agriculture, forestry and fishing	Maize
Agriculture, forestry and fishing	Onions
Agriculture, forestry and fishing	Oranges
Agriculture, forestry and fishing	Potatoes
Agriculture, forestry and fishing	Sugar cane
Agriculture, forestry and fishing	Sunflower seed
Agriculture, forestry and fishing	Tomatoes
Agriculture, forestry and fishing	Wheat
Agriculture, forestry and fishing	Cattle
Agriculture, forestry and fishing	Sheep
Agriculture, forestry and fishing	Pigs
Agriculture, forestry and fishing	Poultry
Agriculture, forestry and fishing	Raw milk
Agriculture, forestry and fishing	Eggs
Agriculture, forestry and fishing	Wool
Agriculture, forestry and fishing	Sawn and planted timber - Softwood
Agriculture, forestry and fishing	Sawn and planted timber - Hardwood
Agriculture, forestry and fishing	Small pelagic (e.g. anchovies and pilchards)
Agriculture, forestry and fishing	Hake
Agriculture, forestry and fishing	Rock lobster
Agriculture, forestry and fishing	Squid
Mining and quarrying	Coal
Mining and quarrying	Natural gas
Mining and quarrying	Natural gas condensate
Mining and quarrying	Gold
Mining and quarrying	Haematite
Mining and quarrying	Chromite - Less than 44% Cr ₂ O ₃
Mining and quarrying	Chromite - 44% to 48% Cr ₂ O ₃
Mining and quarrying	Metallic copper
Mining and quarrying	Metallurgical manganese
Mining and quarrying	Platinum
Mining and quarrying	Rhodium
Mining and quarrying	Nickel
Mining and quarrying	Aggregate stones
Mining and quarrying	Gem diamonds
Mining and quarrying	Industrial diamonds
Mining and quarrying	Phosphate concentrate
Mining and quarrying	Andalusite
Electricity and water	Electricity

Electricity and water	Processed water
Electricity and water	Raw water
Intermediate manufactured products	Cotton Yarn
Intermediate manufactured products	Polyester/cotton yarn
Intermediate manufactured products	Woven fabrics of cotton
Intermediate manufactured products	Synthetic woven fabrics
Intermediate manufactured products	Carpets
Intermediate manufactured products	Twine, cord, rope and cables
Intermediate manufactured products	Knitted or crocheted fabrics
Intermediate manufactured products	Tanned or dressed leather
Intermediate manufactured products	Untreated logs and structural timber
Intermediate manufactured products	Wood in chips or particles
Intermediate manufactured products	Treated logs and structural timber
Intermediate manufactured products	Transmission and telephone poles
Intermediate manufactured products	Boards of wood
Intermediate manufactured products	Builder's carpentry of wood
Intermediate manufactured products	Pallets and other load boards
Intermediate manufactured products	Basic organic chemicals
Intermediate manufactured products	Basic inorganic chemicals
Intermediate manufactured products	Wood preservatives
Intermediate manufactured products	Ethylene polymers and copolymers (PET)
Intermediate manufactured products	Vinyl chloride polymers (PVC) and copolymers
Intermediate manufactured products	Rubber
Intermediate manufactured products	Unvulcanised compounded rubber
Intermediate manufactured products	Conveyor belts or belting
Intermediate manufactured products	Rubber parts for industrial and mining machinery
Intermediate manufactured products	Plastic pipes, tubes and fittings
Intermediate manufactured products	Polyethylene
Intermediate manufactured products	Polyurethane
Intermediate manufactured products	Plastic bags

Intermediate manufactured products	Plastic containers
Intermediate manufactured products	Floor covering materials
Intermediate manufactured products	Plastic tableware and kitchenware
Intermediate manufactured products	Safety glass
Intermediate manufactured products	Fibre glass
Intermediate manufactured products	Glass containers
Intermediate manufactured products	Recycling of metal waste and scrap
Intermediate manufactured products	Ferro-manganese
Intermediate manufactured products	Iron and non-alloy steel products
Intermediate manufactured products	Flat rolled non-alloy steel products
Intermediate manufactured products	Flat rolled stainless steel products
Intermediate manufactured products	Bars and rods of stainless steel
Intermediate manufactured products	Platinum products
Intermediate manufactured products	Unwrought aluminium
Intermediate manufactured products	Copper based tubes and pipes
Intermediate manufactured products	Aluminium products
Intermediate manufactured products	Tanning extract
Final manufactured goods	Beef carcasses and half carcasses
Final manufactured goods	Pork carcasses
Final manufactured goods	Lamb carcasses and half carcasses
Final manufactured goods	Chicken - fresh or chilled
Final manufactured goods	Frozen chicken
Final manufactured goods	Bacon
Final manufactured goods	Polony
Final manufactured goods	Meat burgers
Final manufactured goods	Processed chicken products (e.g. nuggets, fingers)
Final manufactured goods	Meat pies
Final manufactured goods	Viennas
Final manufactured goods	Corned beef and corned meat
Final manufactured goods	Fresh and chilled fish
Final manufactured goods	Frozen fish
Final manufactured goods	Tinned fish
Final manufactured goods	Frozen potato fries
Final manufactured goods	Canned baked beans
Final manufactured goods	Canned mixed vegetables

Final manufactured goods	Canned tomato Purée
Final manufactured goods	Fruit concentrates
Final manufactured goods	Fruit juice
Final manufactured goods	Canned or bottled peaches
Final manufactured goods	Jam
Final manufactured goods	Nuts
Final manufactured goods	Peanut butter
Final manufactured goods	Raisins
Final manufactured goods	Cooking oil
Final manufactured goods	Margarine
Final manufactured goods	Oil cake
Final manufactured goods	Fresh full-cream milk
Final manufactured goods	Long life full-cream milk
Final manufactured goods	Cream
Final manufactured goods	Yoghurt
Final manufactured goods	Cheddar
Final manufactured goods	Gouda
Final manufactured goods	Mozzarella
Final manufactured goods	Ice-cream
Final manufactured goods	Dairy mixtures
Final manufactured goods	Brown bread meal
Final manufactured goods	Cake flour
Final manufactured goods	White bread flour
Final manufactured goods	'Maize meal
Final manufactured goods	Cereals
Final manufactured goods	Glucose and glucose syrup
Final manufactured goods	Maizena corn starch
Final manufactured goods	Dairy cattle feeds
Final manufactured goods	Poultry Feeds
Final manufactured goods	Brown bread
Final manufactured goods	White bread
Final manufactured goods	Raw cane sugar
Final manufactured goods	Refined sugar
Final manufactured goods	Chocolate slabs and bars
Final manufactured goods	Sweets
Final manufactured goods	Uncooked pasta
Final manufactured goods	Tea
Final manufactured goods	Chips
Final manufactured goods	Mayonnaise
Final manufactured goods	Tomato sauce
Final manufactured goods	Creamers
Final manufactured goods	Powdered soft drinks
Final manufactured goods	Spirits
Final manufactured goods	Sparkling wines

Final manufactured goods	Red wine
Final manufactured goods	White wine
Final manufactured goods	Spirit coolers
Final manufactured goods	Beer
Final manufactured goods	Soft drinks
Final manufactured goods	Cigarettes
Final manufactured goods	Blankets
Final manufactured goods	Linen
Final manufactured goods	Loose car seat covers
Final manufactured goods	Pantyhose and tights
Final manufactured goods	Socks
Final manufactured goods	Panties
Final manufactured goods	T-shirts
Final manufactured goods	Knitwear
Final manufactured goods	Mens and boys Jackets
Final manufactured goods	Mens and boys trousers
Final manufactured goods	Mens and boys shirts
Final manufactured goods	Dresses
Final manufactured goods	Skirts
Final manufactured goods	Women's and girls pants and jeans
Final manufactured goods	Blouses
Final manufactured goods	Tracksuits
Final manufactured goods	Bra's
Final manufactured goods	Men's and boys footwear
Final manufactured goods	Women's and girls footwear
Final manufactured goods	Newsprint
Final manufactured goods	Printing/writing paper in rolls or sheets
Final manufactured goods	Packing and wrapping paper in rolls or sheets
Final manufactured goods	Sacks and bags of paper
Final manufactured goods	Corrugated cardboard boxes
Final manufactured goods	Disposable nappies for babies
Final manufactured goods	Toilet paper
Final manufactured goods	Plain cut paper
Final manufactured goods	Books
Final manufactured goods	Newspapers
Final manufactured goods	Printed Stationary
Final manufactured goods	Charcoal
Final manufactured goods	Petrol
Final manufactured goods	Diesel
Final manufactured goods	Engine oils
Final manufactured goods	LPG gasses
Final manufactured goods	Petroleum gasses or gaseous hydrocarbons
Final manufactured goods	Radioactive elements and compounds (uranium)
Final manufactured goods	Nitrogenous fertilizers

Final manufactured goods	Mixed fertilizers
Final manufactured goods	Herbicide
Final manufactured goods	Solvent based paints
Final manufactured goods	Water based paint (PVA)
Final manufactured goods	Analgesics
Final manufactured goods	Cold and flue preparations
Final manufactured goods	Broad spectrum antibiotics
Final manufactured goods	Anti-rheumatics
Final manufactured goods	Expectorants
Final manufactured goods	Bath soap
Final manufactured goods	Laundry bars and tablets
Final manufactured goods	Washing powder
Final manufactured goods	Aerosol deodorant
Final manufactured goods	Lotions and creams
Final manufactured goods	Roll-on
Final manufactured goods	Hydraulic fluids
Final manufactured goods	Prepared explosives
Final manufactured goods	Water and pool treatment chemicals
Final manufactured goods	Man-made fibres - Polyester
Final manufactured goods	Tyres
Final manufactured goods	Non-structural ceramic ware
Final manufactured goods	Ceramic tableware
Final manufactured goods	Refractory bricks and shapes
Final manufactured goods	Clay bricks
Final manufactured goods	Tiles
Final manufactured goods	Cement
Final manufactured goods	Ready-mix concrete
Final manufactured goods	Gypsum boards
Final manufactured goods	Cement or concrete bricks
Final manufactured goods	Roof tiles
Final manufactured goods	Concrete pipes
Final manufactured goods	Prefabricated cement and concrete components
Final manufactured goods	Tombstones
Final manufactured goods	Abrasive equipment
Final manufactured goods	Pre-mixed asphalt
Final manufactured goods	Bituminous mixtures
Final manufactured goods	Carbon black
Final manufactured goods	Wooden Furniture
Final manufactured goods	Beds
Final manufactured goods	Mattresses
Final manufactured goods	Jewellery
Final manufactured goods	Prefabricated buildings
Final manufactured goods	Brooms and mops
Final manufactured goods	Aluminium door and window frames

Final manufactured goods	Steel window frames
Final manufactured goods	Roof sheeting
Final manufactured goods	Cans
Final manufactured goods	Caps and lids
Final manufactured goods	Wire
Final manufactured goods	Internal combustion engines
Final manufactured goods	Hydraulic linear acting power engines and motors, and parts thereof
Final manufactured goods	Pumps
Final manufactured goods	Taps or mixers
Final manufactured goods	Filters for internal combustion
Final manufactured goods	Quarry-crushing and screening plant machinery
Final manufactured goods	Front-end shovel loaders
Final manufactured goods	Parts for mining, quarrying and construction
Final manufactured goods	Munition,ammunitions and cartridges
Final manufactured goods	Fridge-freezer
Final manufactured goods	Computers
Final manufactured goods	Generators sets
Final manufactured goods	Power transformers
Final manufactured goods	Electricity distribution and control equipment
Final manufactured goods	Co-axial cables
Final manufactured goods	Automotive wire cables
Final manufactured goods	Electrical conductors
Final manufactured goods	Batteries
Final manufactured goods	Electric lighting equipment
Final manufactured goods	Electronic components and subassemblies
Final manufactured goods	Passenger vehicles
Final manufactured goods	Bakkies and vans not exceeding 3.5 tons
Final manufactured goods	Lorries, trucks and vans exceeding 3.5 tons
Final manufactured goods	Catalytic convertors
Final manufactured goods	Silencers and exhaust pipes
Final manufactured goods	Radiators
Final manufactured goods	Tipper bodies
Final manufactured goods	Tanker bodies
Final manufactured goods	Draw bar trailers
Final manufactured goods	Tipper, tanker and trailer parts
Final manufactured goods	Jet fuel