

Article

# Improvements to the Import and Export Price Indices (IPI and EPI) and Services Producer Price Indices (SPPI): November 2016

To highlight changes that will affect the Export Price Index (EPI), Import Price Index (IPI) and the Services Producer Price Index (SPPI) surveys over the next few years.

Contact:  
Kat Pegler  
kat.pegler@ons.gsi.gov.uk  
+44 (0) 1633 456468

Release date:  
13 December 2016

Next release:  
To be announced

## Notice

### 13 June 2017

Please note that we have made some changes to the scheduled programme of sample improvement release dates that was announced in November 2016. The sample updates will be introduced in phases starting with updates to the Export Price Index (EPI) in July 2017 (June 2017 period).

The changes relate to when some of the sample updates for specific divisions are scheduled to be introduced; Table 1 (Sample Improvement Release Dates) within the November 2016 article, which can be accessed via the link above, has now been updated to reflect these changes.

# Table of contents

1. [Introduction](#)
2. [Increase to sample size](#)
3. [Improvements to sampling methodology](#)
4. [Sample improvement release dates](#)
5. [Regulatory changes](#)
6. [Next steps](#)

# 1 . Introduction

The purpose of this article is to highlight changes that will affect the [Export Price Index](#) (EPI), [Import Price Index](#) (IPI) and the [Services Producer Price Index](#) (SPPI) surveys over the next few years. These changes are:

- increase to sample size
- improvements to sampling methodology
- regulatory changes

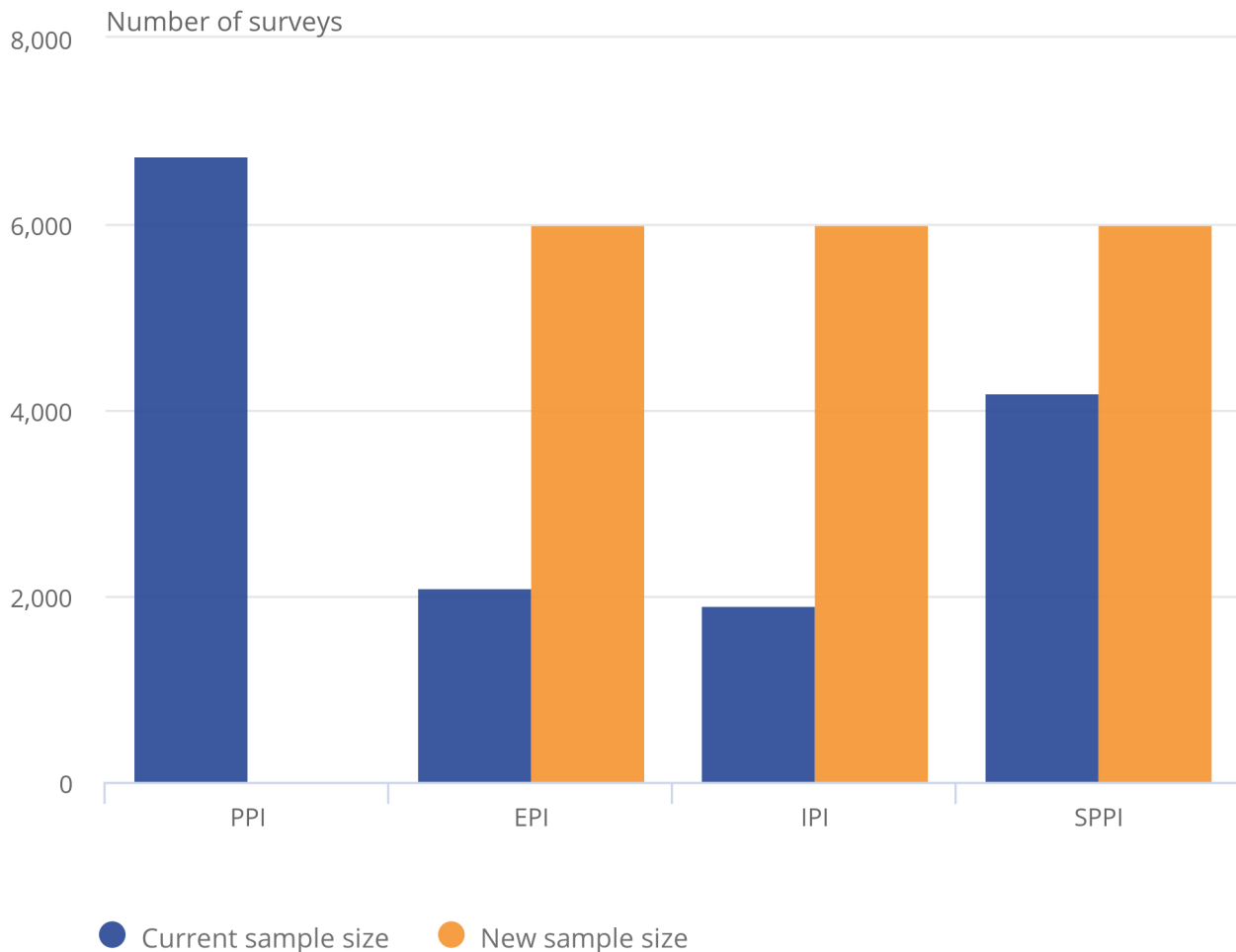
## 2 . Increase to sample size

Currently the EPI series is constructed from the price observations of 2,100 manufactured products that are sold to the export market. Similarly, IPI is currently constructed from monthly price observations of 1,900 materials purchased by UK manufacturing businesses from overseas suppliers. The quarterly SPPI sample currently consists of 4,200 price observations of services sold to UK businesses.

All 3 of these sample sizes are notably lower than the Producer Price Index (PPI) sample size which is based upon 6,750 product price observations, as shown in the chart below. This, along with a lack of sample maintenance and the fact that significant numbers of export and import indices are constructed from single price observations, is the motivation for increasing sample sizes. The resulting improvement in quality means the data can be more reliably used, in particular by national accounts within the Gross Domestic Product (GDP) estimates.

**Figure 1: Survey sample sizes, current and new**

Figure 1: Survey sample sizes, current and new



Source: Office for National Statistics

**Source: Office for National Statistics**

To improve the coverage and reliability of EPI and IPI it has been proposed that sample sizes for these surveys are increased to 6,000 price observations each; this will bring the sample sizes of these surveys more in line with that of the PPI. The increase in sample size will have 2 benefits; firstly it will eliminate any indices within the surveys that are constructed from single price observations, and secondly it will improve the coverage of export and import indices. Although all sectors of manufacturing are represented within EPI, these are currently estimated from indices constituting approximately 57% of the total export activity. Similarly, IPI represents all materials consumed within manufacturing; it is estimated from indices that constitute around 41% of the import activity into the manufacturing sector. The increase in sample sizes would see the coverage of EPI increase to 76% and IPI to 67%.

The increase in sample size for SPPI to 6,000 price observations each quarter will improve the survey in terms of sustainability. A lack of sample maintenance has resulted in the SPPI sample size slowly decreasing over time as businesses no longer active in certain service areas cease to provide data. This has been exacerbated by the lack of a suitable sample frame for SPPI as attempts to top up samples have not achieved representative coverage at the product level.

### 3 . Improvements to sampling methodology

To facilitate the increase in sample size for EPI and IPI, both of these surveys will use the sampling strategy currently employed within the PPI survey (this is detailed in chapter 3 of the [PPI methods and guidance](#)) using the HMRC export and import declarations as a sample frame.

Until recently the SPPI survey was unable to use the sampling strategy of PPI due to the absence of a product-level sample frame similar to the PRODCOM or HMRC data. However, substantial changes to the [Services Turnover Survey](#) mean that this survey is now a suitable sample frame to underpin the SPPI selection. The availability of the Services Turnover Survey data means that we are now able to improve the SPPI sampling methodology to both facilitate the small increase to the sample size but also improve the process by which businesses are selected in the sample.

### 4 . Sample improvement release dates

The improvements to the EPI and IPI data will be released in 3 waves throughout 2017 and 2018, at which time they will be included in the monthly PPI release from the following periods:

**Table 1: Sample Improvement Release Dates**

Publication period	SIC Divisions with increased sample size
Jun-17	(EPI) 19 20 21 28
Oct-17	(EPI) 10 11 12 24 25 29 30
	(IPI) 13 14 26 27 29 30
Q4-2017	(SPPI) 37 38 49 50 51 53 55 56 58 59 80
Feb-18	(EPI) 13 14 17 18 26 27
	(IPI) 02 03 05 06 07 10 11 12 15 20 21 22
Jun-18	(EPI) 15 16 22 23 31 32
	(IPI) 16 17 18 19 28 31 32
Q2-2018	(SPPI) 52 61 62 63 68 77 78 81 82
Oct-18	(EPI) 19 20 21 28
	(IPI) 01 08 23 24 25
Q4-2018	(SPPI) 69 70 71 73 74 85 96

Source: Office for National Statistics

Each of the above releases will be accompanied by commentary detailing the impact of the new sample upon the data published.

In a similar manner, the SPPI sample improvements will be released in 3 waves between February 2018 and February 2019. The allocation of Standard Industrial Classifications (SIC) Divisions to each of these waves has not yet been established but will be made available in late spring 2017.

## 5 . Regulatory changes

Currently, PPI and SPPI must adhere to the European Union (EU) Short-term statistics (STS) regulation. STS indicators are important tools for formulating and monitoring the economic and monetary policy of the EU and the [euro area](#); they are in great demand by the [European Commission](#) and [European Central Bank](#) (ECB), national governments and central banks, companies and financial markets.

In 2011, Eurostat launched the Framework Regulation for Integrating Business Statistics (FRIBS); a new regulation for integrating, in a common legal framework, the systematic collection, compilation, data transmission and dissemination of statistics relating to the structure, economic activity, global transactions and performance of the business sector. FRIBS will ultimately replace the existing STS regulation.

The final version of FRIBS was agreed by member states towards the end of 2016 and will need to be implemented by 2019.

The increased coverage resulting from the new regulation will provide a significant improvement to the deflators used in national accounts for example, in the calculation of gross domestic product (GDP), as well as providing price indices that more accurately reflect changes in the UK service sector. These indices are vital indicators for policymakers as well as important tools for analysts and UK businesses.

For the PPI, no changes are expected to be necessary to ensure compliance with FRIBS. To ensure compliance of the SPPI with FRIBS, however, the following changes are required:

### **Change scope of SPPI to Business to All (B2All)**

The SPPI is currently produced on a business-to-business (B2B) basis, as per the current STS regulation. This means that SPPI only includes services sold by UK businesses and purchased by UK businesses and government. FRIBS will require a change to broaden coverage to include transactions between UK businesses and all sectors of the economy. This will require not only the addition of domestic consumers, but also export of services where appropriate.

### **Review coverage of selected indices**

For some time the coverage of specific indices required under the STS regulation has not been comprehensive enough. Specifically this relates to SIC Divisions 51 (Business airfares), 62 (Computer services) and 63 (Data processing services). Since these coverage issues relate to the existing B2B transactions, the existing index structures need to be reviewed and improved before adding the consumer and export transactions.

### **Set-up capability for us to deliver the additional data required by FRIBS**

Currently, we only deliver the SPPI series required under the STS regulation to Eurostat. Under FRIBS, we will be required to send data that represents more of the service sector, using deflators in use within national accounts where SPPIs are not available. More information about the deflators used is available in the [GDP\(O\) source catalogue](#).

FRIBS will become legislation at the beginning of 2019, which is being referred to as the first reporting reference year. This will not change the reference year of any of the business prices publications, but only signifies the point at which compliance with the regulation must be achieved. The scale of change required by FRIBS means that the UK has to act now to reach full compliance on this timescale.

## **6 . Next steps**

Further updates will be published as this work progresses and to notify users when any improvements are implemented. If you have any questions or comments on this work, please email [ppi@ons.gov.uk](mailto:ppi@ons.gov.uk) or telephone Kat Pegler on +44 (0)1633 456468.