

# Voorburg Task Force – Alignment of Methodology and Scope between Service Producer Price Indices (SPPIs) and Consumer Price Indices (CPIs)

WASHINGTON  
20 | 23  
SEPTEMBER  
2021

## Developing a framework for using CPIs in SPPI calculation

Antonia Bertin

Dorothee Blang

Rohan Draper

Nicklas Elversø

Swann-Emilien Maillefert

Melanie Santiago


Ruth Vaizner

Jean-Marie Fournier

  
Statistisches Bundesamt

  
Statistics Sweden

  
DANMARKS  
STATISTIK

  
Institut national de la statistique  
et des études économiques  
Insee  
Mesurer pour comprendre

  
BLS

  
הלשכה המרכזית לסטטיסטיקה  
Central Bureau of Statistics  
دائرة الإحصاء المركزية

Voorburg | Washington, DC | 2021





VOORBURG  
GROUP

WASHINGTON  
20 | 23  
SEPTEMBER  
2021

# Voorburg Task Force - A framework for using CPIs in SPPIs

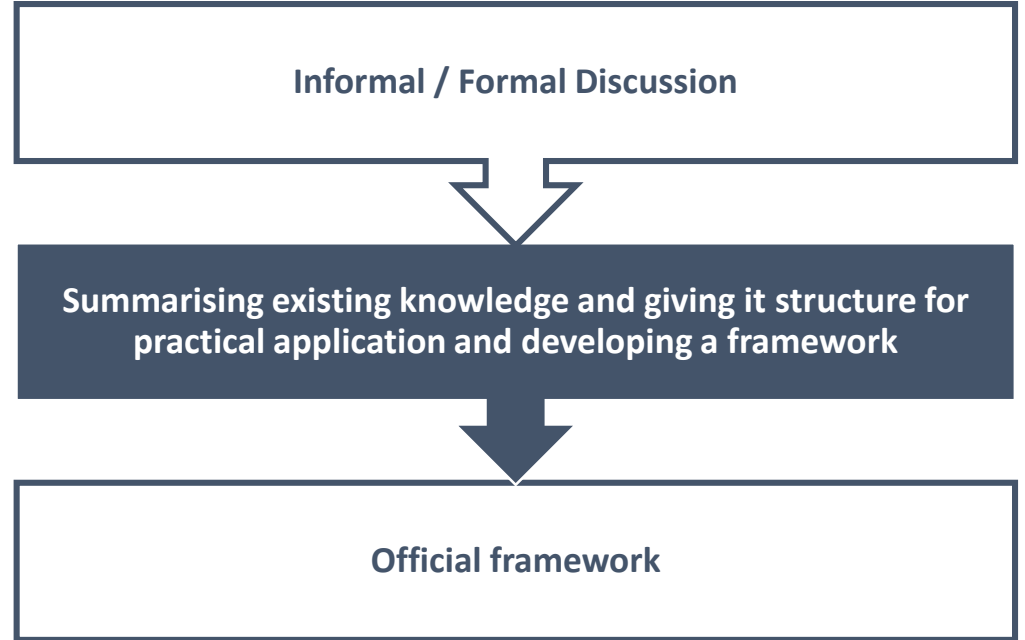
## Foreword

### Foreword

This Voorburg Group Task Force was formed with the mandate of improving knowledge regarding the utilization of CPIs as proxy and/or directly comparable replacements to SPPIs.

Official presentations on CPI usage in SPPIs have been made most recently at the 34th Voorburg Group meeting, 29th Voorburg Group meeting and via the second edition of the Eurostat-OECD Methodological Guide for Developing Producer Price Indices for Services (2014).

A formal framework, however, is yet to be officially established. The paper that this task force has developed takes a further important step in the establishment of such an official framework.



Voorburg | Washington, DC | 2021



VOORBURG  
GROUP

WASHINGTON

20 | 23  
SEPTEMBER  
2021

# Voorburg Task Force - A framework for using CPIs in SPPIs

## Contents

<b>Foreword</b>	<b>1</b>
<b>Current Guidance</b>	<b>3</b>
<b>Main Purpose and Valuation Principles</b>	<b>4</b>
<b>International Trade</b>	<b>5</b>
<b>Nomenclature (concordance) and Product vs Industry</b>	<b>6</b>
<b>Supply and Use Tables</b>	<b>7</b>
<b>Conclusion</b>	<b>10</b>





VOORBURG  
GROUP

WASHINGTON

20 | 23  
SEPTEMBER  
2021

# Voorburg Task Force - A framework for using CPIs in SPPIs

## Current Guidance

The rise in turnover and need for coverage of the service based economy whilst balancing limited organizational resources has led to some preliminary discussions at Voorburg and a basic level of advice in literature:

- The methodological guide for developing SPPIs does not provide any rules for how to use CPIs when compiling SPPIs but loosely communicates the concept of “collect once, use many times”
- The guide does not provide a systematic repeatable framework for assessing the feasibility and practical application of using CPIs as a proxy
- The guide advises to utilise CPIs where the vast share of output goes to household final demand which is only a limited “one dimensional” take on representativeness
- Supply / Use tables are colloquially discussed as a valuable data source for determination purposes but no practical experiences and/or framework provided for application



VOORBURG  
GROUP

WASHINGTON

20 | 23  
SEPTEMBER  
2021

# Voorburg Task Force - A framework for using CPIs in SPPIs

## Main Purpose and Valuation Principles

Basic price = the amount received by the producer from the purchaser plus any subsidies received on a product.

Producers' price = the amount received by the producer from the purchaser

Purchasers' price = the amount paid by the purchaser for the product

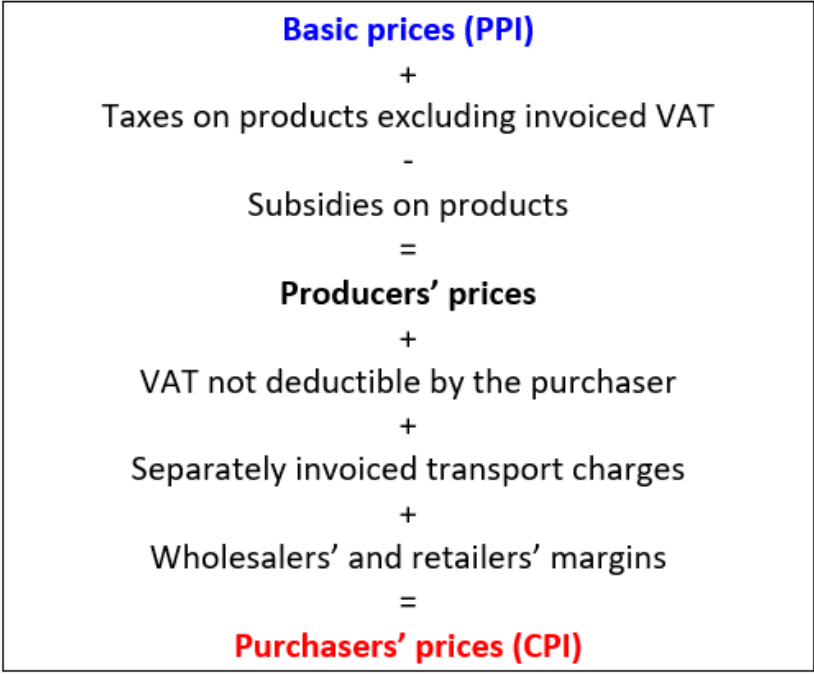


Diagram originates from [System of National Accounts \(2008\)](#), Page 103 (§ 6.69)





VOORBURG GROUP

WASHINGTON

20 | 23  
SEPTEMBER  
2021

# Voorburg Task Force - A framework for using CPIs in SPPIs International Trade

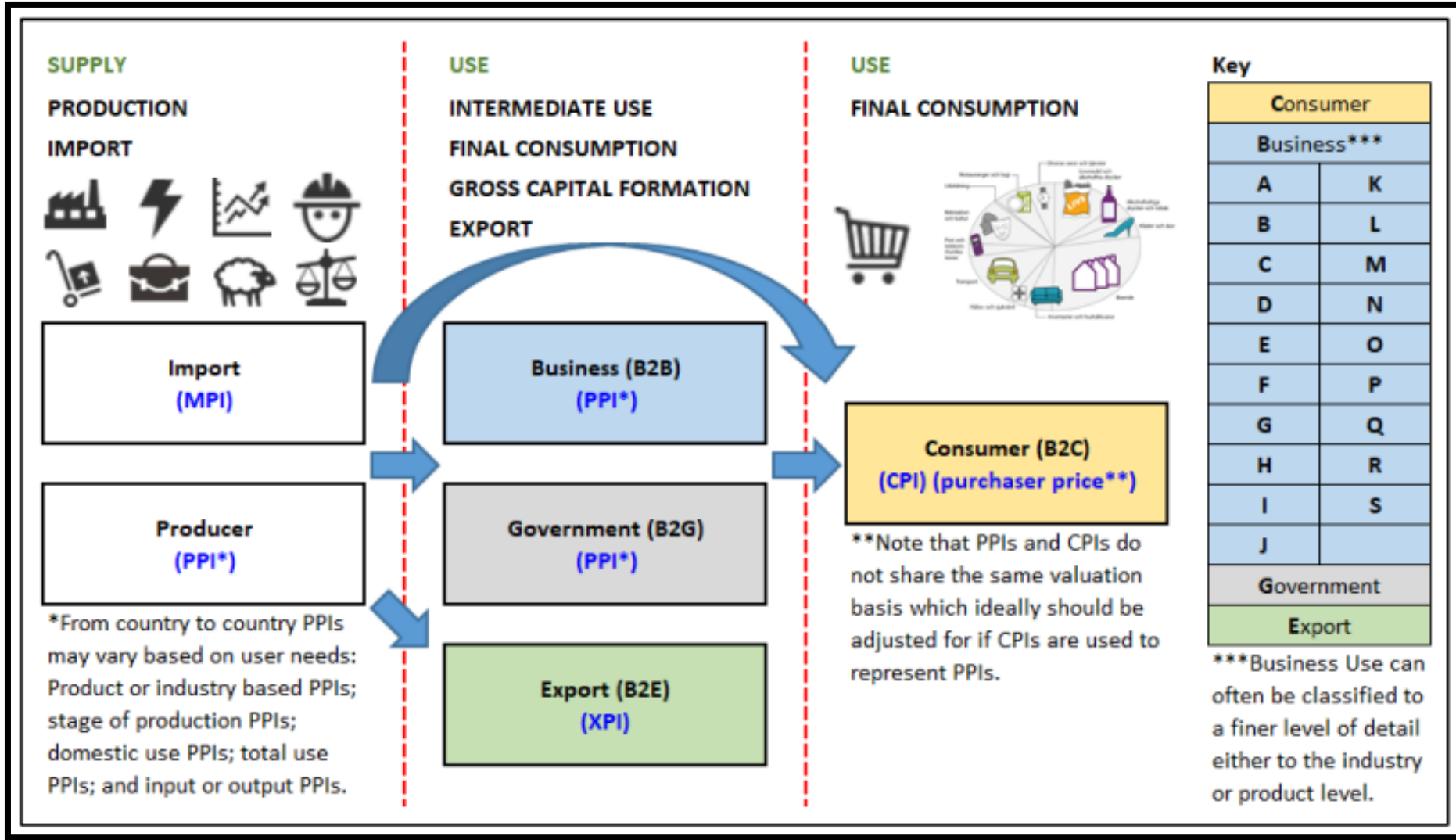


Diagram originates from R.Draper and M.Fridén (Statistics Sweden, 2019) – “SPPIs by customer sector - “the Swedish experience” (34<sup>th</sup> Voorburg Meeting).



VOORBURG  
GROUP

WASHINGTON

20 | 23  
SEPTEMBER  
2021

# Voorburg Task Force - A framework for using CPIs in SPPIs Nomenclature (concordance) and Product vs Industry

- COICOP (CPI) vs ISIC (PPI) vs CPA (PPI)
- An excel file is available that attempts to define concordance between SPPIs and CPIs

- (1) **Match** - when the definitions of the two classifications are relatively close (8 CPA categories out of 129), especially for transport of passengers, services relating to dwellings, videogames, etc.;
- (2) **Proxy** - when the definitions of the two classifications partially overlapped (22 CPA categories out of 129);
- (3) **Proxy by aggregation of several CPIs** - with the question of the weightings of these CPIs which have to be used in order to estimate the evolution of a SPPI (20 CPA categories out of 129);
- (4) **Weak Proxy**, when the definitions of the two classifications are far from being close (16 CPA categories out of 129); and finally
- (5) **Weak Proxy by aggregation of several CPIs**, with only 11 CPA categories covered.



# Voorburg Task Force - A framework for using CPIs in SPPIs Supply and Use Tables

**Simple schematic of supply-use tables**

Supply							
Products	Industries			Imports	Trade and transport margins	Taxes less subsidies on products	Total
	Agriculture	Industry	Services activities				
Agricultural products	Output by product and by industry at basic prices			Imports by product	Trade and transport margins by product	Taxes less subsidies on products by product	Total supply by product at purchasers' prices
Industrial products							
Services							
Total	Total output at basic prices by industry			Total imports	Total trade and transport margins	Total taxes less subsidies on products	Total Supply at purchasers' prices

Use							
Products	Industries			Final uses			Total
	Agriculture	Industry	Services activities	Final consumption	Gross capital formation	Exports	
Agricultural products	Intermediate consumption by product and by industry			Final uses by product and by category			Total use by product at purchasers' prices
Industrial products							
Services							
Value added	Value added by component and by industry, at basic prices						Value added
Total	Total output at basic prices by industry			Total final uses by category			

Diagram originates from OECD (2017) – “what role for supply use tables”  
<http://oecdinsights.org/2017/06/05/statistical-insights-what-role-for-supply-use-tables/>





# Voorburg Task Force - A framework for using CPIs in SPPIs Supply and Use Tables

This analysis is a starting point to assessing the feasibility of a CPI as a proxy for PPI. A quick checklist to consider when using SUTs for finding and utilizing CPI's as PPI Proxies:

- How detailed are your Supply-and-Use-tables, industry, service, 6-digit level?
- How homogenous are the given industry or service at the level of detail available to you?
- Is there a share of household consumption for a given service or industry that is deemed to be too high a risk for use as a broad-based proxy?
- How big are the export and import share of the revenue data in the SUT for the given industry or service?

SUPPLY	
Imports	I2ALL
USE <sup>16</sup>	
Total Intermediate Use	B2B
Household final consumption expenditure	B2C
Government final consumption expenditure	B2G or B2B
Gross fixed capital formation	B2B
Exports	B2E



# Voorburg Task Force - A framework for using CPIs in SPPIs Supply and Use Tables

This analysis is a starting point to assessing the feasibility of a CPI as a proxy for PPI. A quick checklist to consider when using SUTs for finding and utilizing CPI's as PPI Proxies:

- How detailed are your Supply-and-Use-tables, industry, service, 6-digit level?
- How homogenous are the given industry or service at the level of detail available to you?
- Is there a share of household consumption for a given service or industry that is deemed to be too high a risk for use as a broad-based proxy?
- How big are the export and import share of the revenue data in the SUT for the given industry or service?

Product (use)	Australia B2C	Australia B2E	Australia Import	Austria B2C	Austria B2E	Austria Import	Denmark B2C	Denmark B2E	Denmark Import	France B2C	France B2E	France Import
Electricity, gas, steam and air conditioning, bp	22%	0%	0%	15%	5%	5%	48%	10%	6%	31%	3%	0%
Water supply, sewerage, waste management and remediation services, bp	30%	0%	0%	1%	9%	17%	42%	7%	8%	24%	8%	4%
Natural water, water treatment and supply services, bp	48%	0%	0%	0%	0%	0%	64%	0%	0%	39%	0%	0%
Sewerage services, sewage sludge, waste collection & management serv., bp	4%	0%	0%	1%	10%	19%	39%	9%	9%	20%	10%	5%
Waste collection, treatment & disposal serv., materials recovery serv., bp	4%	0%	0%	...	...	...	...	...	...	...	...	...



VOORBURG  
GROUP

WASHINGTON

20 | 23

SEPTEMBER

2021

# Voorburg Task Force - A framework for using CPIs in SPPIs

## Conclusion

A framework for assessing the feasibility of CPI utilisation in SPPIs should include (but is not limited to) the following aspects:

- Main purpose
- Valuation Principles
- International Trade
- Nomenclature (concordance)
- Product vs Industry
- Supply and Use Tables (practical analysis)

Beyond these aspects there are of course other operational differences in the practical application of, for example: aggregation rules; quality adjustment; imputation methods; different methods of measuring intermediate services, such as banking and insurance services, and coverage of personal consumption components that are not directly paid by the consumer but by a third party.

- Communication / harmonisation strategy

This paper sets the foundations from which more studies and analysis on the implication of using CPIs as a proxy for SPPIs can be done and an official ratified framework developed.