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Guide to using price indices for escalation purposes

Introduction

Many commercial and other legal agreements require a monetary value to be increased from time to time. Examples are multiyear service contracts, divorce maintenance payments, rental agreements, and salaries.

This document aims to assist anyone needing to escalate a value using a price index published by Stats SA. Information on the methods used to compile price indices is available on our website at http://www.statssa.gov.za/?page_id=2528.

Users should note that Stats SA may provide information about what price indices are published by it, but does not provide advice, commentary or assistance regarding the preparation of contracts or disputes arising from contract interpretation. It is also not in a position to advise on the appropriateness of any particular index to use for escalation. The choice of a suitable index is up to the parties to the agreement. It is important that contracts and agreements clearly specify the index to be used.

There are four key pieces of information needed to escalate a value, plus a formula

1. Choice of index (a)

It is important to identify the correct index to use. Preferably the contract should specify the index. If a contract refers to the 'consumer price index' or the 'CPI' then it usually means the All items CPI for all urban areas (which is South Africa's measure for headline inflation). This is found in the monthly consumer price index release (P0141) in Tables A and B. Other price indices published by Stats SA include the producer price index (PPI) (P0142.1) and the construction materials price indices (CMPI) (P0151.1). The CMPI release contains the construction price adjustment provisions (CPAP) tables.

Price index information (and contact information) is usually found in the PDF versions of the Stats SA publications available on the Stats SA website www.statssa.gov.za. In cases where a more detailed index is required, or an escalation over many years is needed, then it may be necessary to access time series information in Excel format from this link on the website http://www.statssa.gov.za/?page_id=1847.

The CPI, PPI and CMPI are published in the month following the reference period. For example the CPI for January is published in February of that year. That means that it is only possible to calculate an escalation for a particular month in the following month – for example an escalation using the January CPI can only be calculated in February.

2. Base amount (b)

This is the actual monetary value that is to be escalated.

3. Index for the base period (c)

It is important to identify the base period that the base amount refers to. Usually this refers to a specific month. Note the corresponding index in the table.

4. Index for the escalation period when the new amount must take effect (d)

This is the date when you need to start paying or receiving the new amount. It is the month to which you need to escalate the base amount. Note the corresponding index in the table.

5. Formula for the new amount

$$New\ amount = b \times \left(\frac{d}{c}\right)$$

Example 1

A contract states that a monthly amount payable will be escalated annually every September using the September CPI. In this example from September 2020 to September 2021.

1. Choice of index (a)

The choice of index is clear, and is found in Table B1 of Stats SA's monthly CPI release.

Table B - CPI headline

Table B1 - CPI headline index numbers (Dec 2016=100)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2017	100,6	101,7	102,3	102,4	102,7	102,9	103,2	103,3	103,8	104,1	104,2	104,7	103,0
2018	105,0	105,8	106,2	107,0	107,2	107,6	108,5	108,4	108,9	109,4	109,6	109,4	107,8
2019	109,2	110,1	111,0	111,7	112,0	112,4	112,8	113,1	113,4	113,4	113,5	113,8	112,2
2020	114,1	115,2	115,6	115,0	114,3	114,9	116,4	116,6	116,8	117,1	117,1	117,3	115,9
2021	117,7	118,5	119,3	120,1	120,2	120,5	121,8	122,3	122,6	122,9	123,5	..	..

2. Base amount (b)

Suppose the amount that you need to escalate is R2 500

3. Index for the base period (c)

The base period in this example is September 2020. The index is 116,8.

4. Index for the escalation period when the new amount must take effect (d)

In 2021, the escalation period in this example is September 2021. The index is 122,6.

5. Formula for the new amount

$$New\ amount = b \times \left(\frac{d}{c}\right)$$

$$New\ amount = R2\ 500 \times \left(\frac{122{,}6}{116{,}8}\right) = R2\ 624{,}14$$

This is a 5% increase.

Example 2

A contract states that a monthly amount payable will be escalated annually every February based on average consumer price inflation for the previous calendar year (average for January to December). In this example from 2020 to 2021.

1. *Choice of index (a)*

As in Example 1, the choice of index is clear, and is found in Table B1 of Stats SA's monthly CPI release:

Table B - CPI headline

Table B1 - CPI headline index numbers (Dec 2016=100)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2017	100,6	101,7	102,3	102,4	102,7	102,9	103,2	103,3	103,8	104,1	104,2	104,7	103,0
2018	105,0	105,8	106,2	107,0	107,2	107,6	108,5	108,4	108,9	109,4	109,6	109,4	107,8
2019	109,2	110,1	111,0	111,7	112,0	112,4	112,8	113,1	113,4	113,4	113,5	113,8	112,2
2020	114,1	115,2	115,6	115,0	114,3	114,9	116,4	116,6	116,8	117,1	117,1	117,3	115,9
2021	117,7	118,5	119,3	120,1	120,2	120,5	121,8	122,3	122,6	122,9	123,5	..	..

2. *Base amount (b)*

Suppose the amount that you need to escalate is R3,174 million.

3. *Index for the base period (c)*

The base period in this example is calendar 2019. The index is 112,2.

4. *Index for the escalation period when the new amount must take effect (d)*

In 2021, the escalation period in this example is calendar 2020. The index is 115,9.

5. *Formula for the new amount*

$$New\ amount = b \times \left(\frac{d}{c}\right)$$

$$New\ amount = R3{,}174\ million \times \left(\frac{115{,}9}{112{,}2}\right) = R3{,}279\ million$$

This is a 3,3% increase.

For further information please contact

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