Enhancing the Compilation of Economic Indices in the Philippines: From Quarterly Economic Indices (QEI) to Monthly Economic Indices (MEI)

By

Florande S. Polistico, Aaron Paolo B. Uy, Jenny Lou Z. De las Alas, Kristy Ann G. Meguiso, Chelo M. Nuyda and Juna Alyanna F. Grimaldo

Presented by

Jenny Lou Z. De las Alas

Philippine Statistics Authority

Outline of Presentation

I.   What is Quarterly Economic Indices?

II. Towards Measuring Economic Indices

III. Methodology

IV. Results

V.   Future Directions

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What is Quarterly Economic Indices (QEI)?

o A compilation of indices on the volume of production, revenue, employment, compensation, and compensation per employee across all industries

o The QEI points out the change of direction in the performance of the industries. It also identifies the trend of the variables in the indices across industries over time.

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Uses of the QEI

Policy setting, monitoring and analysis
- For instance, the QEI serves as basis for wage rate determination

Identifying the trends in revenue, employment, and compensation of the industries
- Forecasting of revenues by analysts and researchers

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Towards Measuring the Economic Indices

Scope and Coverage

Industry Classification

The industry classification for the compilation of the QEI follows the classification of the National Accounts and represents the industry groupings based on the Philippine Standard Industrial Classification (PSIC).

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Towards Measuring the Economic Indices

Scope and Coverage

Industry Classification

Agriculture, Fishery and Forestry
Mining and Quarrying
Manufacturing
Construction
Electricity, Gas, and Water Supply
Transportation, Storage, and Communication
Trade
Financial and Insurance Activities
Real Estate
Other Services

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Towards Measuring the Economic Indices

Data Sources

Annual Survey of Philippine Business and Industries (ASPBI)
- Basis for the benchmark data items in firming up the indices on revenue, employment and compensation by industry.

Quarterly Survey of Philippine Business and Industries (QSPBI)
- Source of data items for the estimation of quarterly revenue, employment, and compensation indices

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Towards Measuring the Economic Indices

Data Sources

Consumer Price Index (CPI)
- o Used as a deflator for the compensation per employee at current prices

Monthly Integrated Survey of Selected Industries (MISSI)
- o The results of the QSPBI are supplemented by this survey for the manufacturing industry

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Methodology

Index on Gross Revenue, Employment, Compensation

The indices are derived as the ratio of the estimated values to the base year levels

$$Index_k = \frac{Levels_k \; at \; current \; prices}{Levels_k \; at \; 2016} * 100$$

$$where: \; k \; is \; revenue, employment, or \; compensation$$

Total indices for revenue, compensation, and employment are derived as the summation of the weighted indices

$$Total \; Index = \sum_i a_i w_i$$

$$where: \; a_i \; is \; the \; index \; of \; the \; i^{th} \; industry \; and \; w_i \; is \; the \; weight \; of \; the \; i^{th} \; industry$$

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Methodology

Compensation Per Employee Index

It is the ratio of the Index on Compensation for the given year divided by the Index on Employment for the same period.

At current prices

$$Compensation\ per\ employee\ index = \frac{Index\ on\ compensation}{Index\ on\ employment} * 100$$

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Methodology

Compensation Per Employee Index

To arrive at the index at constant prices, the corresponding index at current prices is deflated by the CPI based 2012.

At constant prices

$$Compensation\ per\ employee\ index = \frac{Index\ on\ compensation\ per\ employee\ at\ current\ prices}{Consumer\ Price\ Index\ at\ 2012\ Prices}$$

Methodology

Monthly Indices on Gross Revenue, Employment and Compensation

(a)

$$Derived\ Index\ of\ Month_i\ Quarter_j = \frac{Monthly\ Index_i\ of\ Quarter_j}{\frac{\sum_{i=1}^{3} Monthly\ Index_i\ of\ Quarter_j}{3}} * 100$$

$$where: i = 1, 2, 3$$
$$j = 1, 2, 3, 4$$

(b)

$$Index\ of\ Month_i\ Quarter_j = Published\ Index\ of\ Quarter_j * (a)$$

$$where: i = 1, 2, 3$$
$$j = 1, 2, 3, 4$$

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Results

Table 1. Correlation Coefficients of Revenue, Employment and Compensation

Indices	Correlation Coefficient
Revenue and Employment	0.6084
Revenue and Compensation	0.7943
Compensation and Employment	0.8035

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Results

Table 2. Growth Rates(%) on Revenue: 2018

Period	Quarterly	Monthly
Quarter 1	**7.3**	
January		**6.9**
February		**10.8**
March		**4.6**
Quarter 2	**9.6**	
April		**8.8**
May		**7.3**
June		**12.7**

Results

Table 2. Growth Rates (%) on Revenue: 2018

Period	Quarterly	Monthly
Quarter 3	**9.7**	
July		**14.0**
August		**10.9**
September		**4.2**
Quarter 4	**9.3**	
October		**12.4**
November		**9.6**
December		**6.2**

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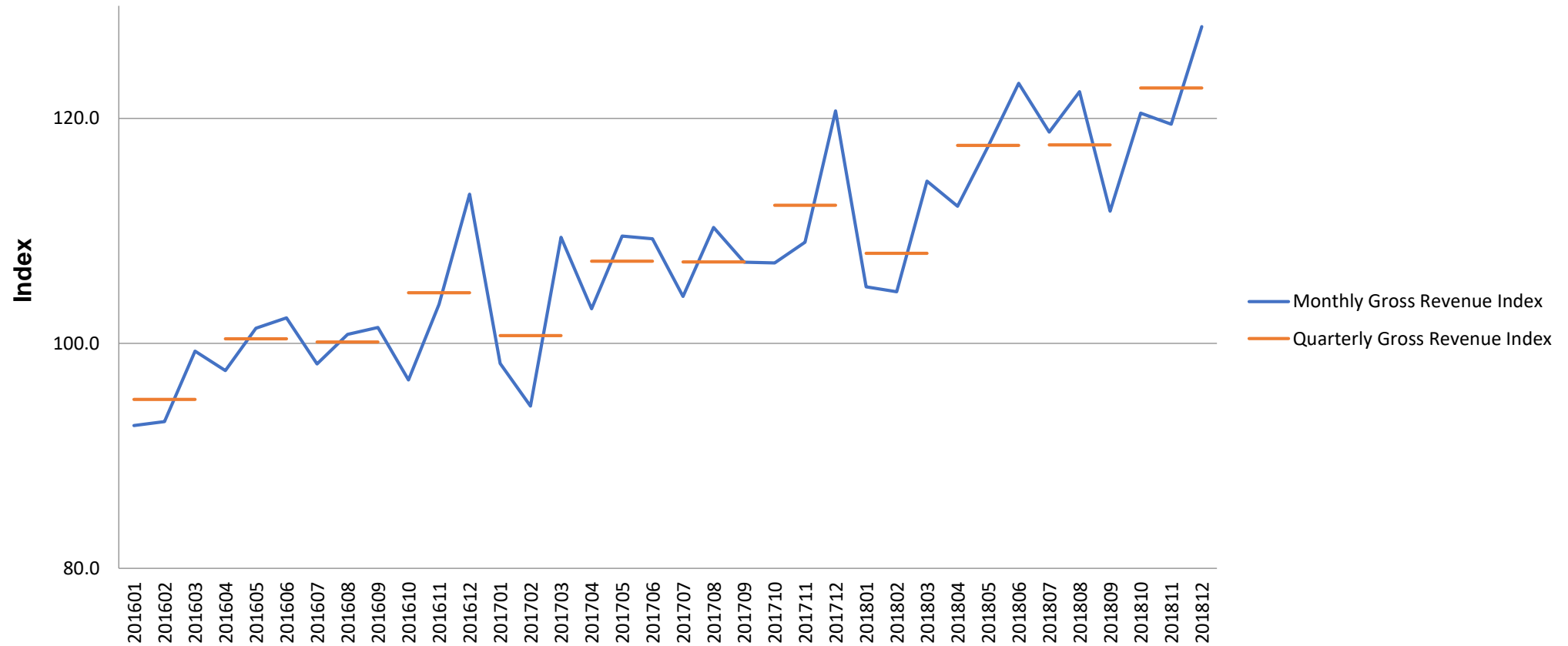
Results

Figure 1. Total Gross Revenue Index of Industries: 2016-2018

Results

Table 3. Growth Rates (%) on Employment: 2018

Period	Quarterly	Monthly
Quarter 1	**1.3**	
January		**1.1**
February		**1.7**
March		**1.1**
Quarter 2	**1.3**	
April		**1.4**
May		**1.2**
June		**1.4**

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Results

Table 3. Growth Rates (%) on Employment: 2018

Period	Quarterly	Monthly
Quarter 3	**1.9**	
July		**1.8**
August		**1.7**
September		**2.2**
Quarter 4	**3.1**	
October		**3.0**
November		**2.2**
December		**3.9**

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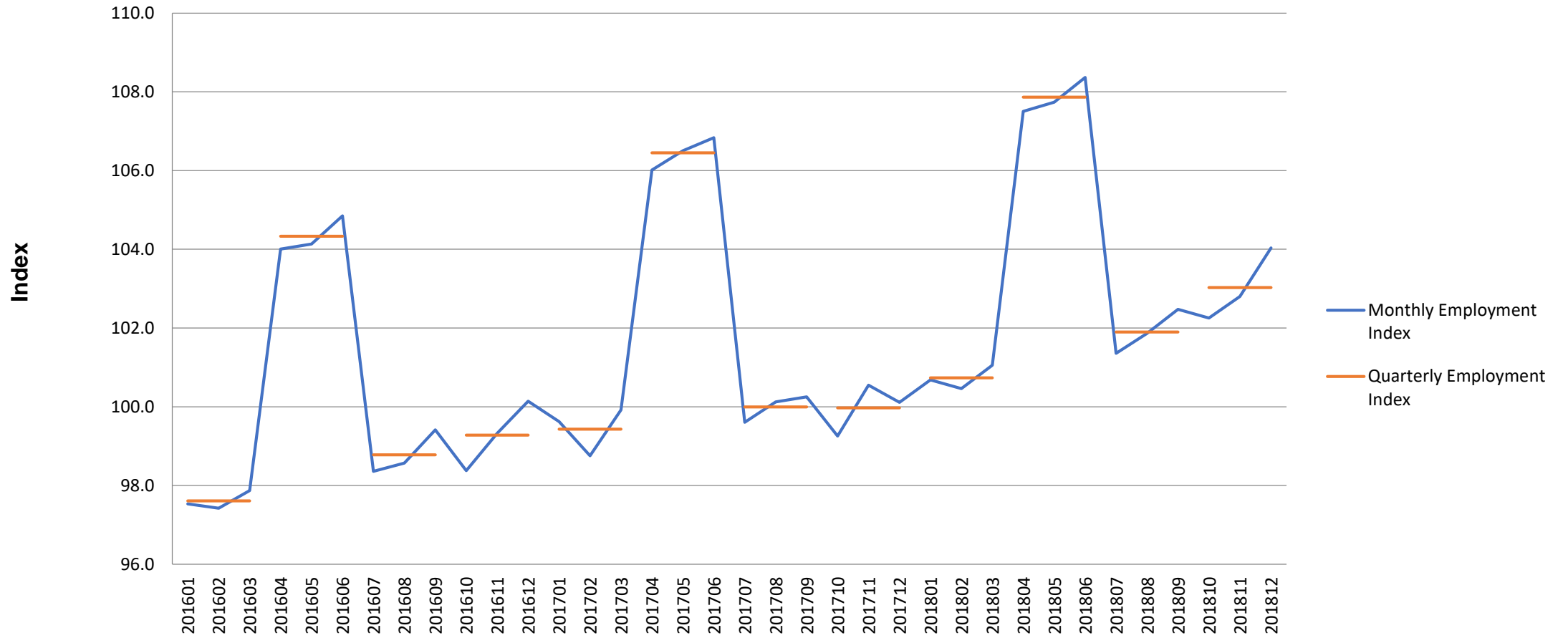
Results

Figure 2. Total Employment Index of Industries: 2016-2018

Results

Table 4. Growth Rates (%) on Compensation: 2018

Period	Quarterly	Monthly
Quarter 1	**3.3**	
January		**3.3**
February		**2.4**
March		**4.1**
Quarter 2	**3.7**	
April		**4.7**
May		**2.8**
June		**3.6**

Results

Table 4. Growth Rates (%) on Compensation: 2018

Period	Quarterly	Monthly
Quarter 3	**3.3**	
July		**1.7**
August		**4.3**
September		**3.8**
Quarter 4	**4.2**	
October		**3.3**
November		**7.0**
December		**2.4**

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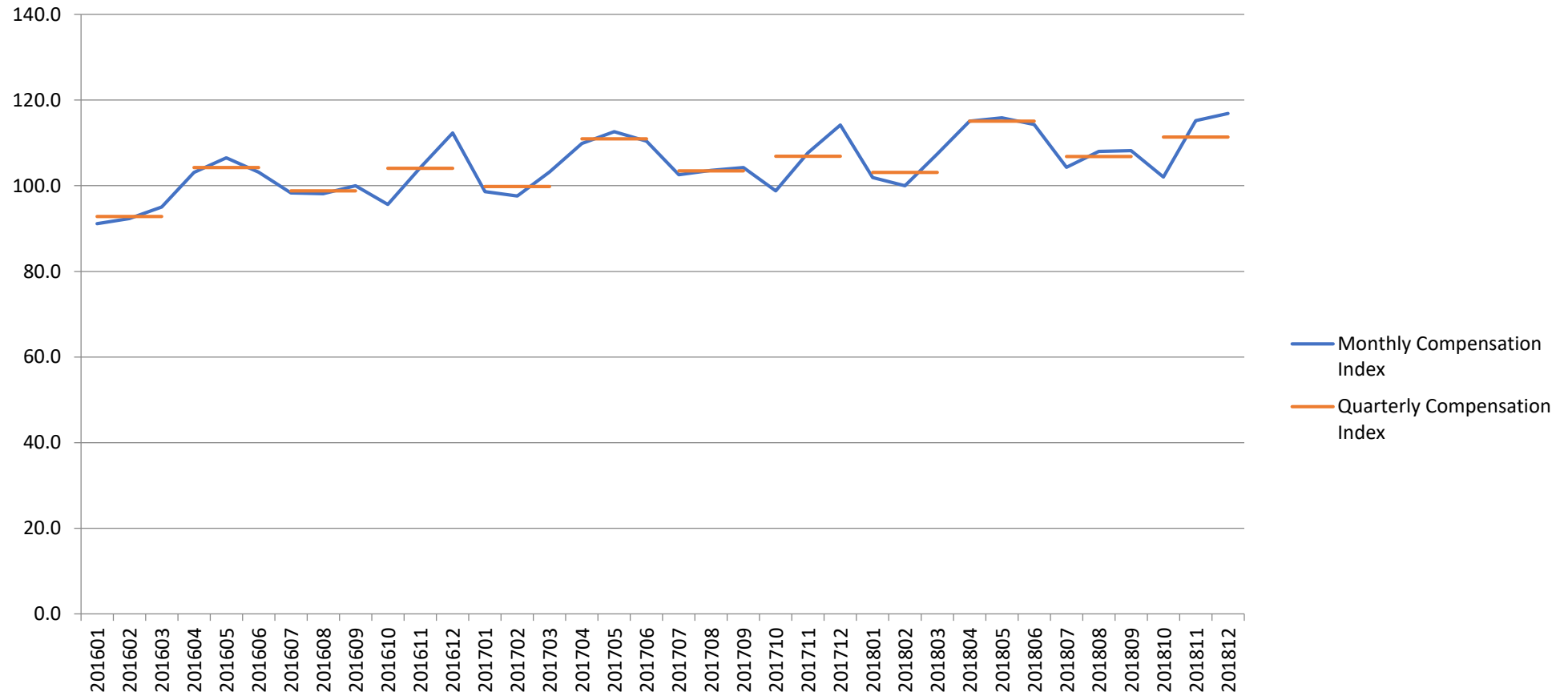
Results

Figure 3. Total Compensation Index of Industries: 2016-2018
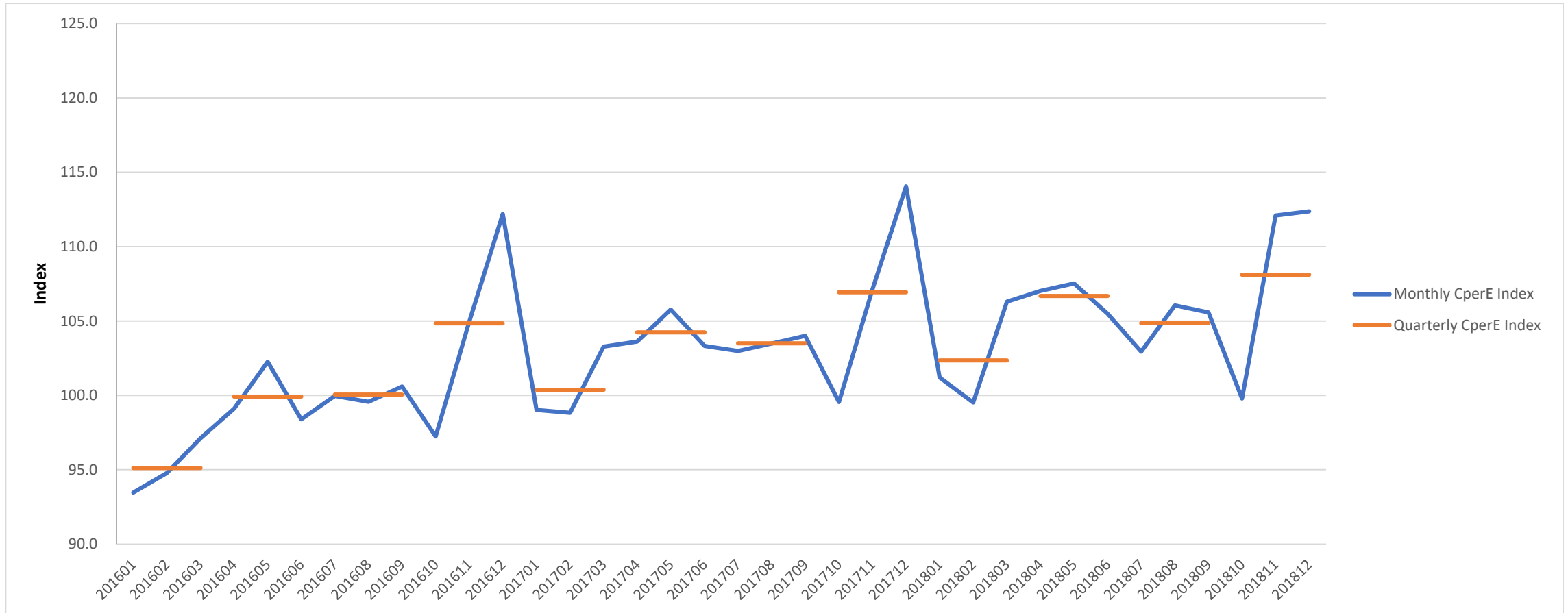
Results

Figure 4. Total Compensation per Employee Index at Current Prices of Industries: 2016-2018
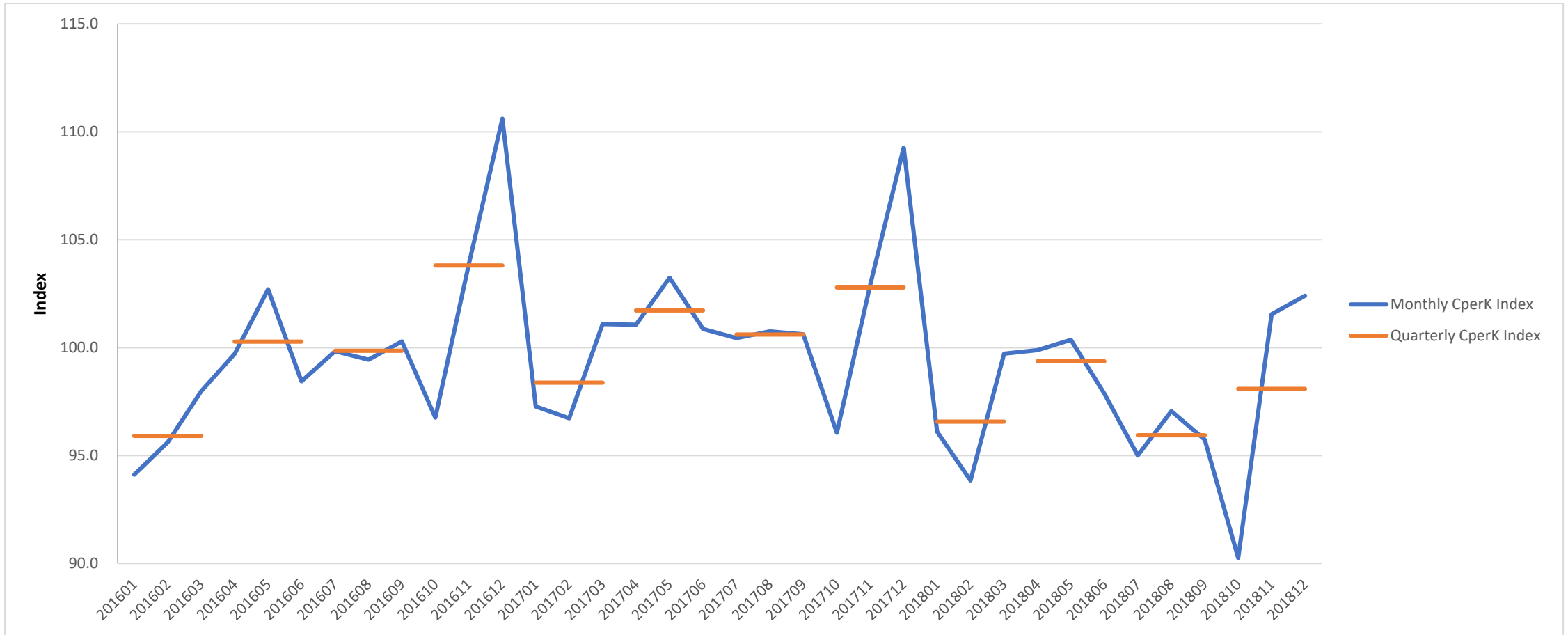
Results

Figure 5. Total Compensation per Employee Index at Constant Prices of Industries: 2016-2018

Future Directions

 *In lieu of quarterly economic indicators such as Labor Force Survey, the monthly economic indices will serve as high frequency economic indicators for timely monitoring of economic activity.

*This will serve as an advanced signal to the policy-makers and stakeholders of the current economic behavior.

Thank You!

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