

# Results of the 2016 Annual Update of the National Income and Product Accounts



Bureau of Economic Analysis

July 29, 2016

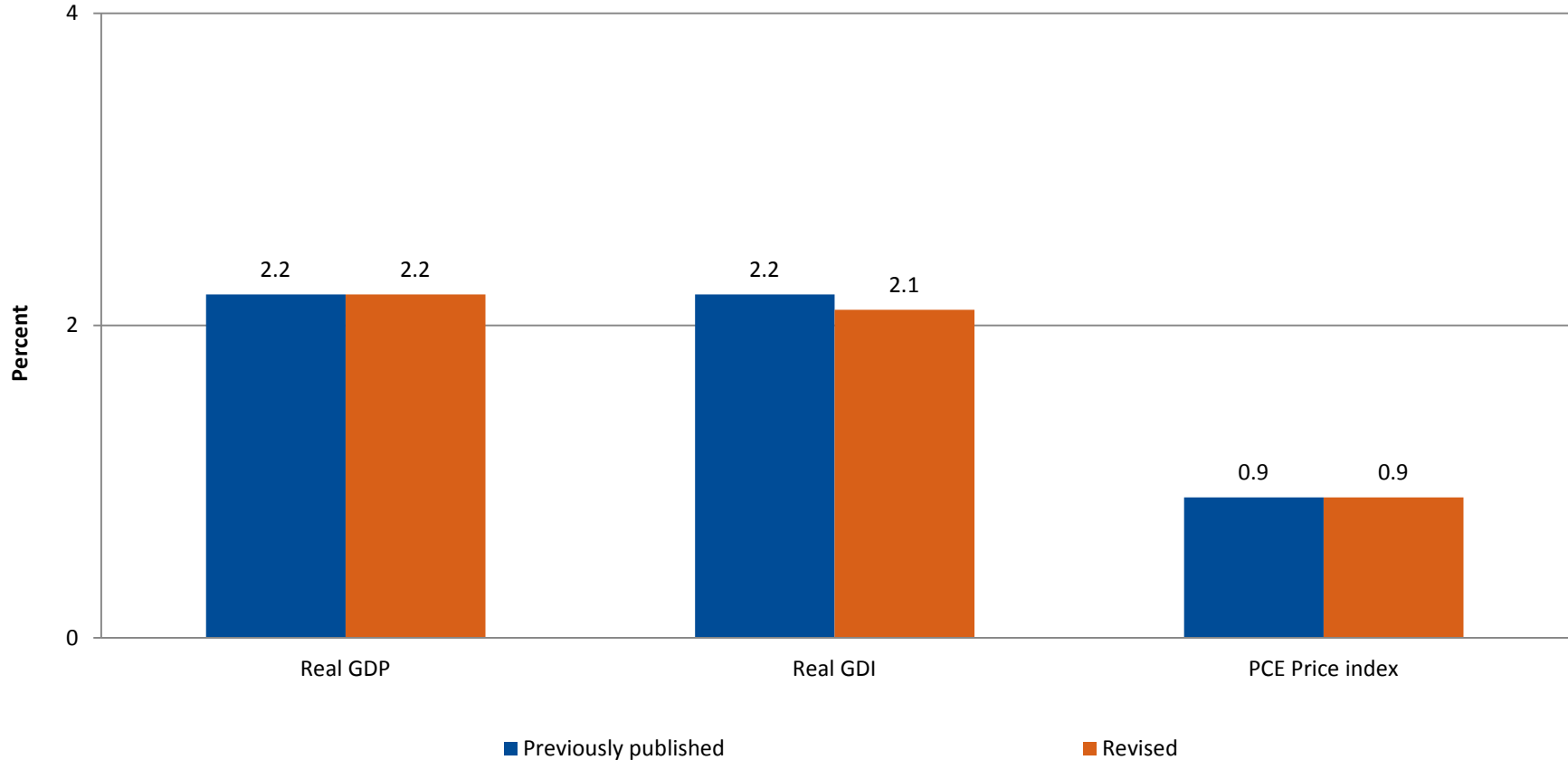
# Results of the 2016 NIPA

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- Slight revisions to average growth rates of GDP and GDI from 2012Q4 to 2016Q1
  - GDP growth unrevised at 2.2 percent
  - GDI revised down 0.1 percentage point
- Major sources of revisions:
  - New and revised source data
    - Census Bureau’s annual retail trade survey, service annual survey, construction spending (value-put-in-place), annual survey of manufactures, annual wholesale trade survey, and government finances data, BEA international transactions accounts, IRS business tax return data
  - Methodology improvements
    - Ongoing improvements to seasonal adjustment
    - Advance inventory data

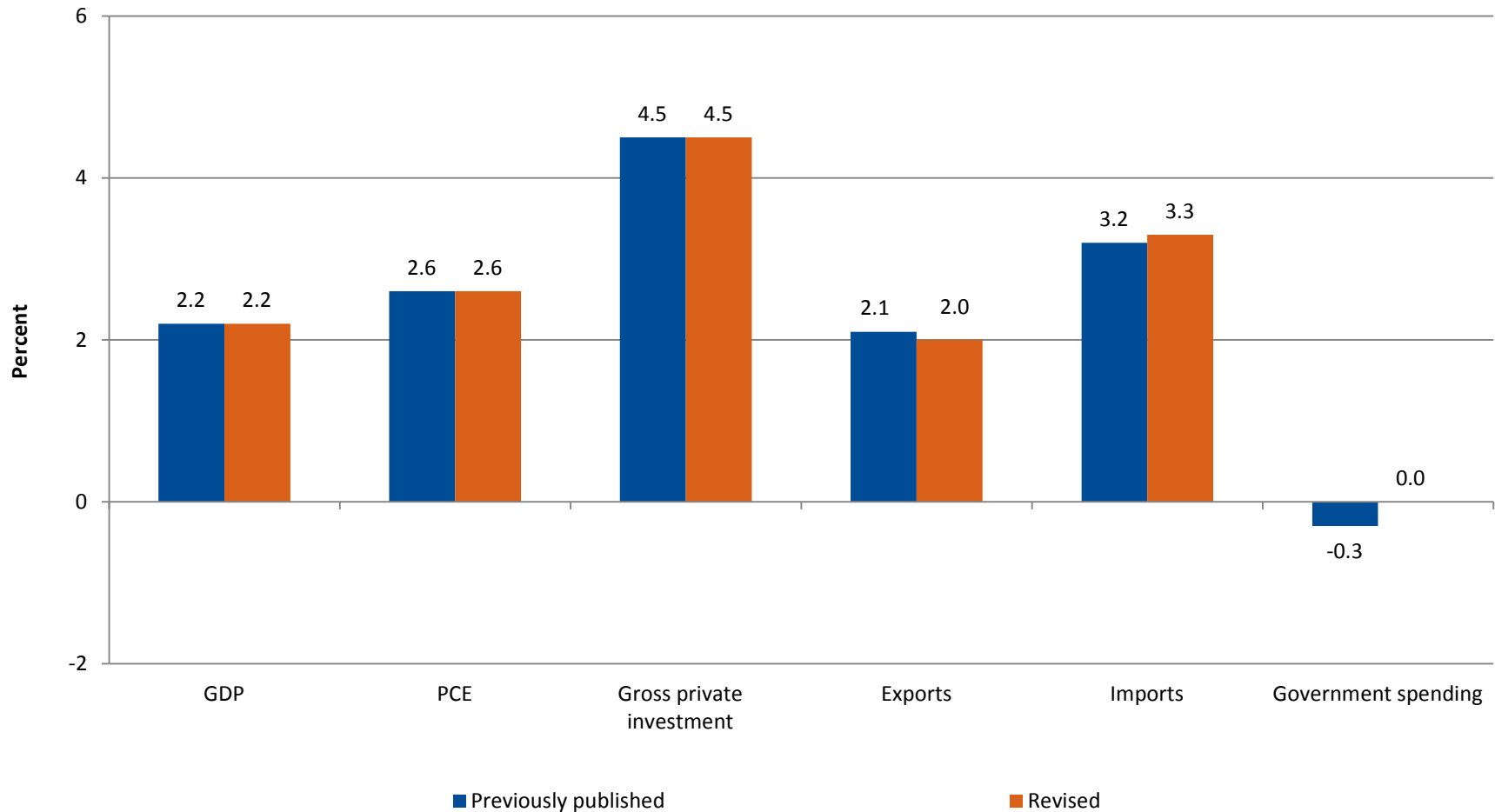
# Average annual rates of change 2012Q4 to 2016Q1



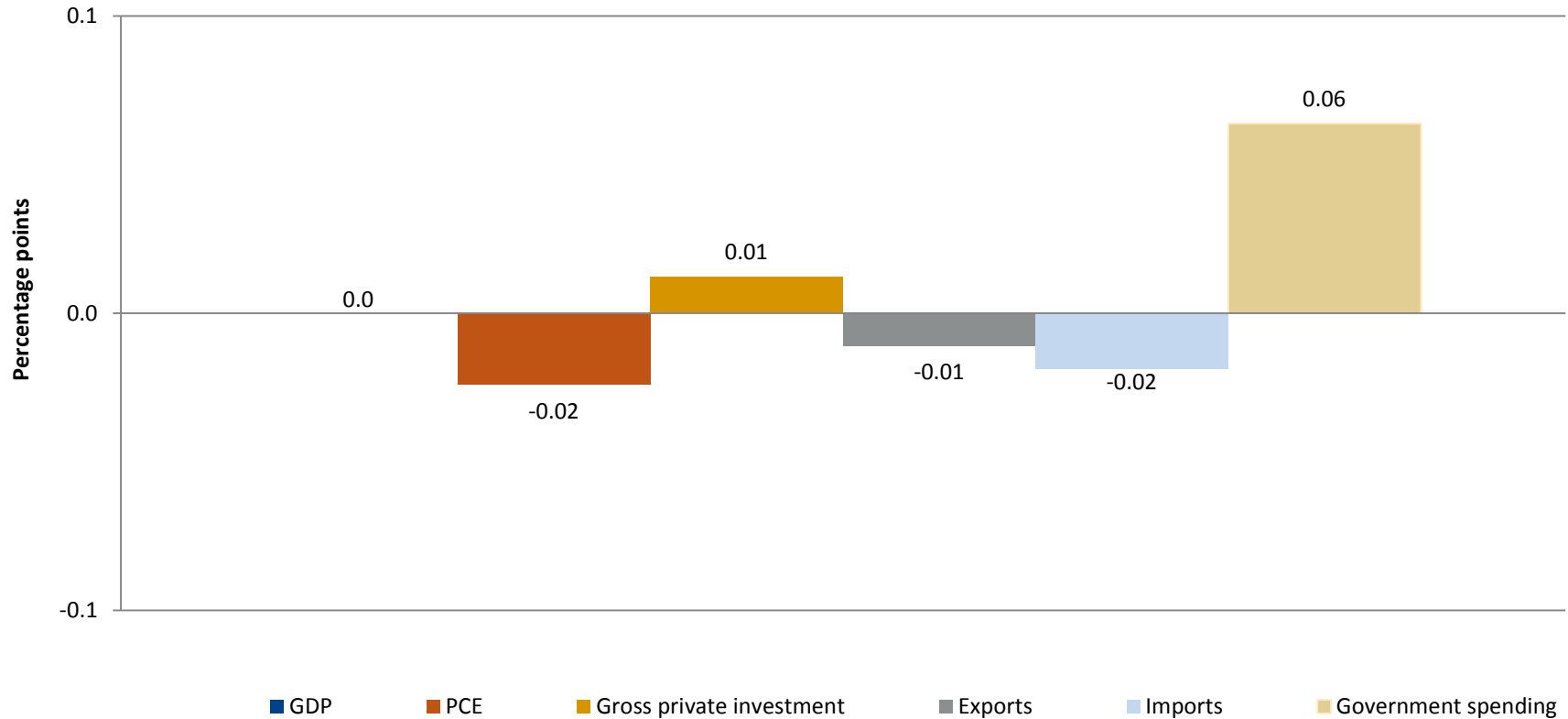
# Gross Domestic Product



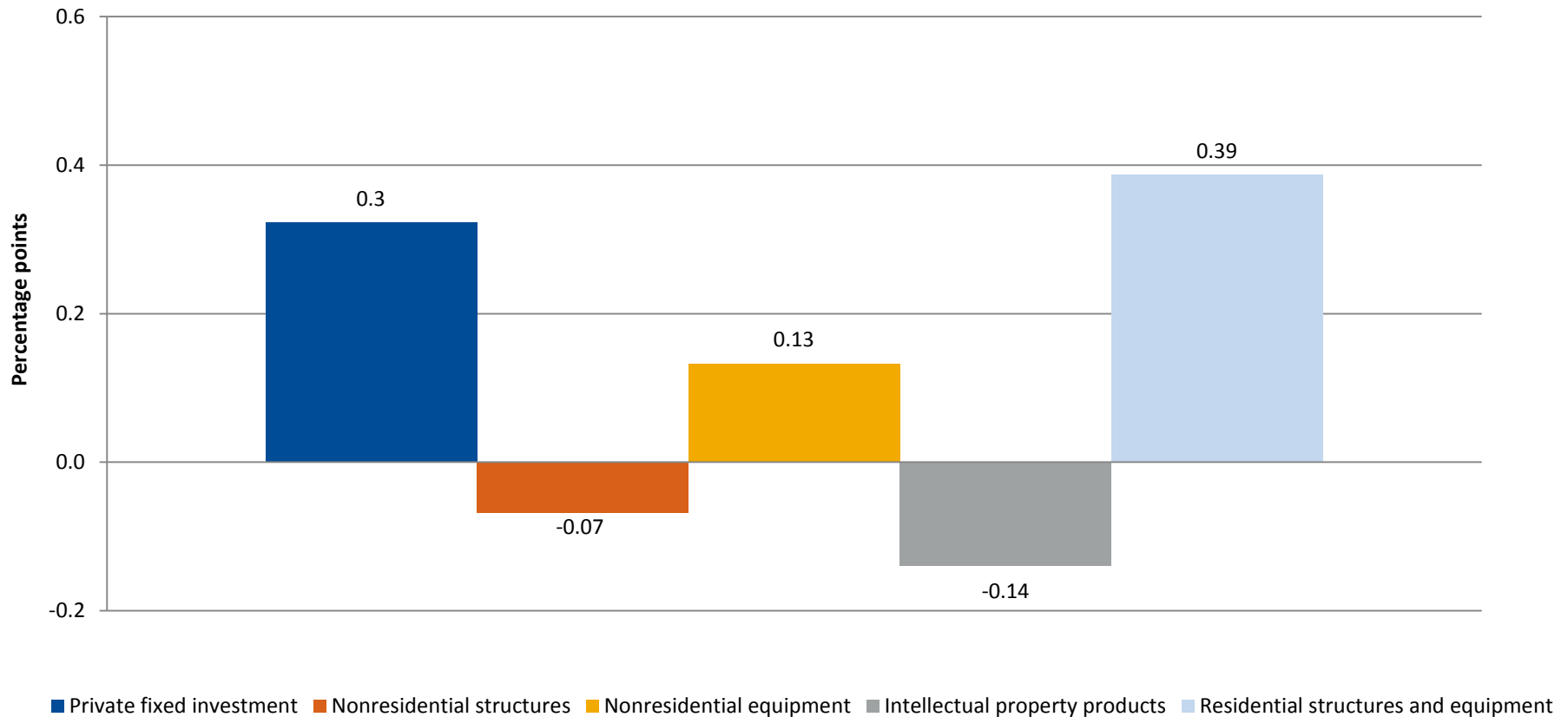
# Average annual rates of change for real GDP 2012Q4 to 2016Q1



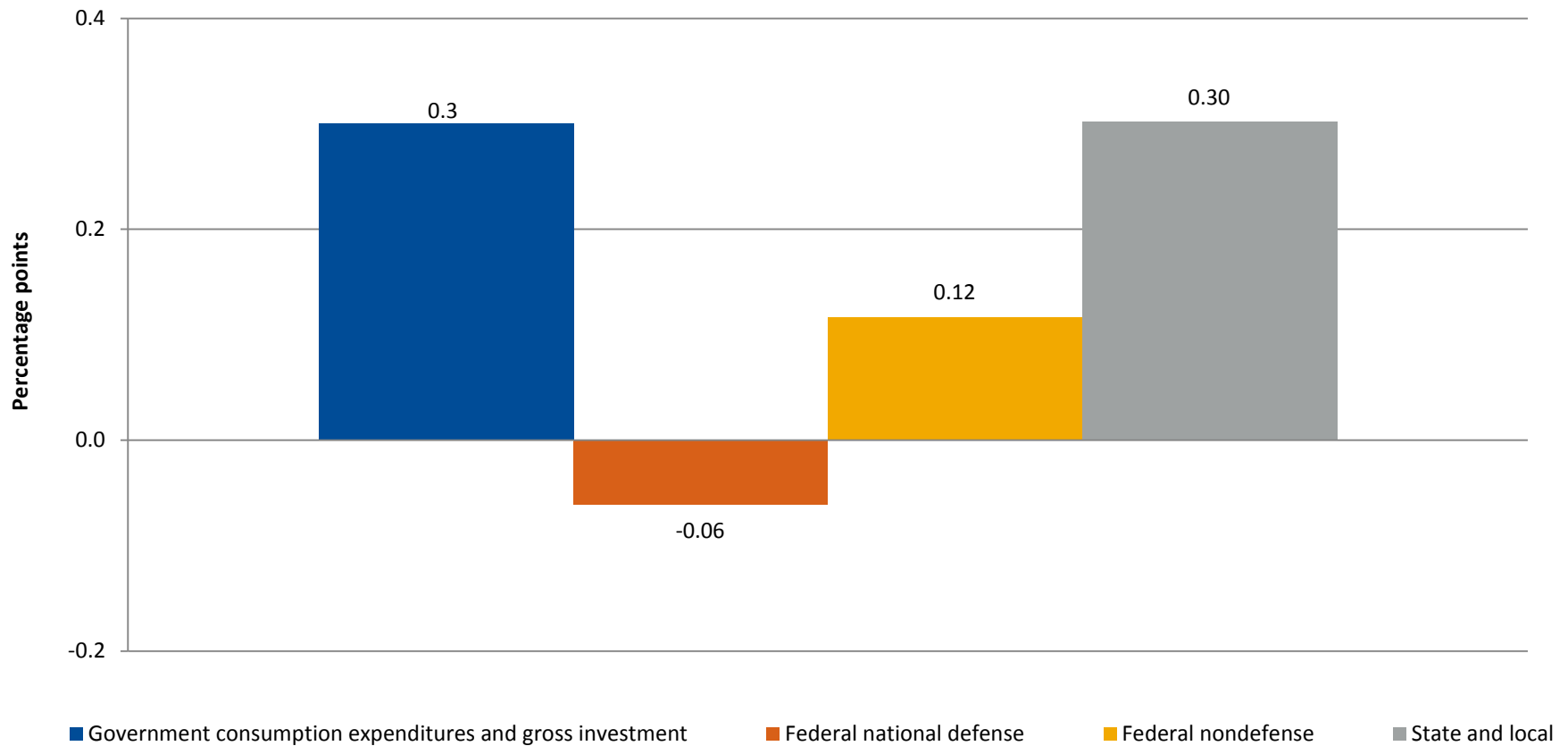
# Contributions to the revision to real GDP 2012Q4 to 2016Q1



# Contributions to the revision to private fixed investment 2012Q4 to 2016Q1



# Contributions to the revision to government spending 2012Q4 to 2016Q1





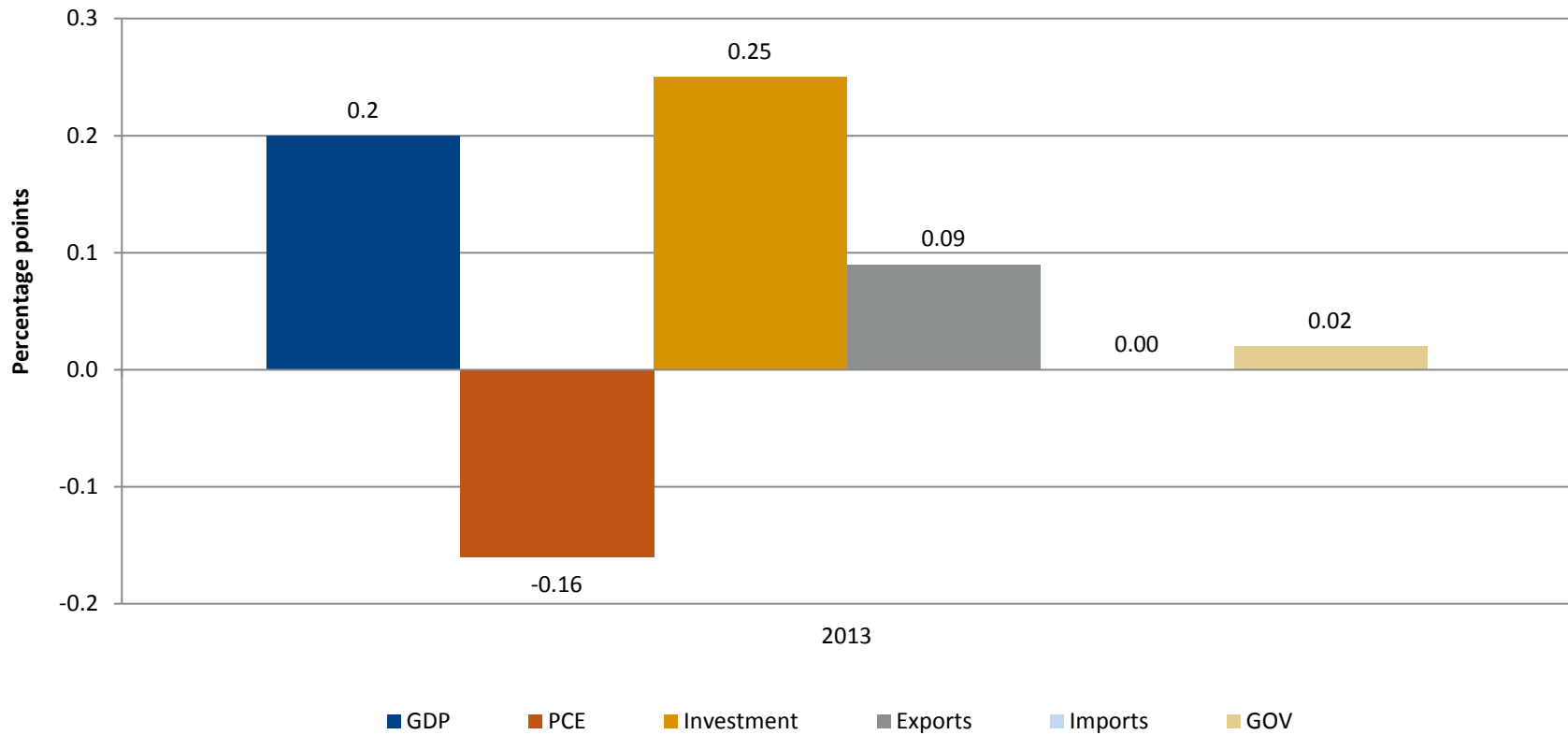
# Real GDP growth 2013-2015



<b>Percent change from the preceding year</b>	<b>Revised</b>	<b>Previously published</b>
2013	1.7	1.5
2014	2.4	2.4
2015	2.6	2.4
<b>Percent change fourth quarter to fourth quarter</b>	<b>Revised</b>	<b>Previously published</b>
2013	2.7	2.5
2014	2.5	2.5
2015	1.9	2.0

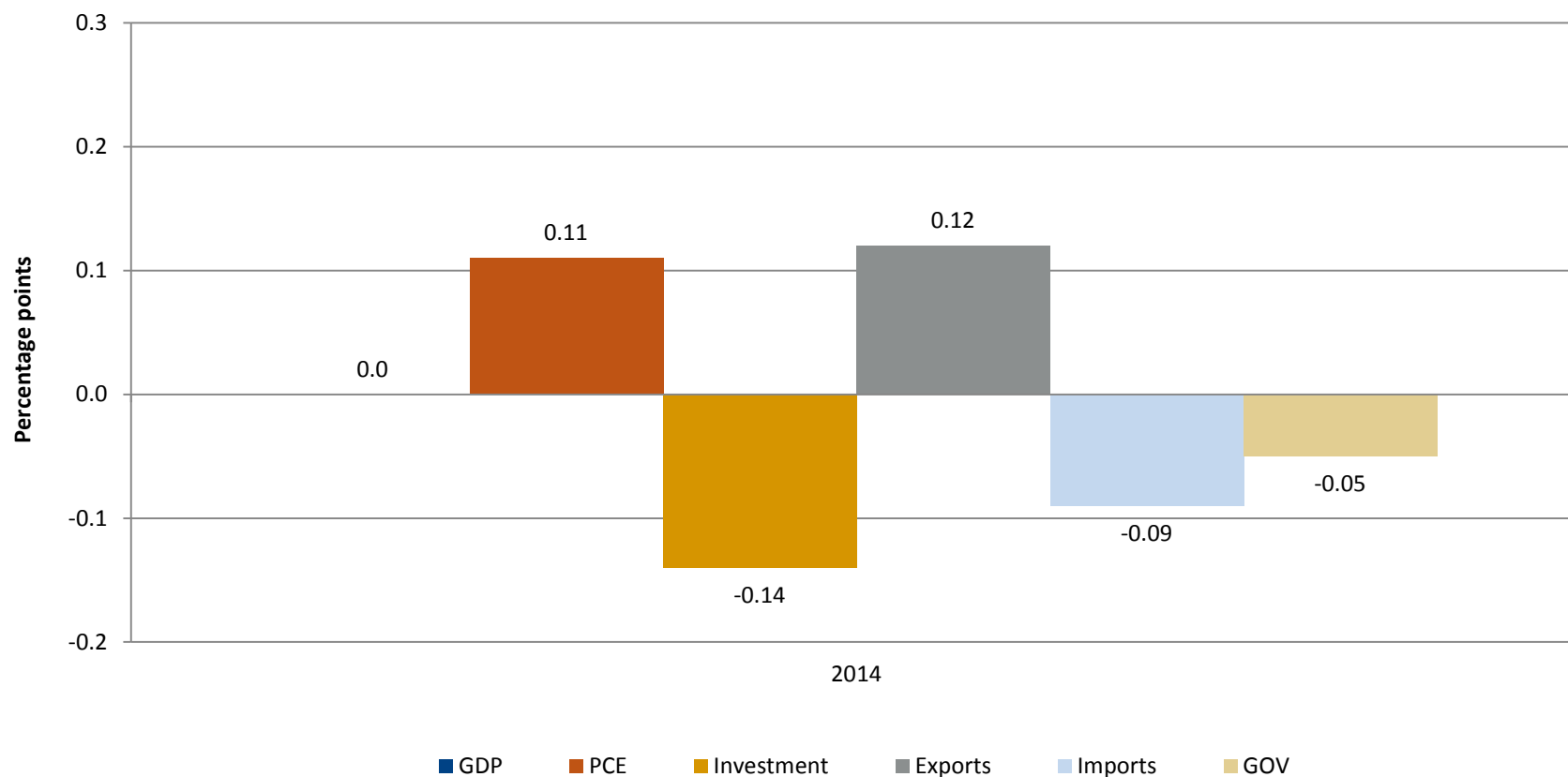
# Contributions to the revision to real GDP growth 2013

**GDP was revised from 1.5 to 1.7**



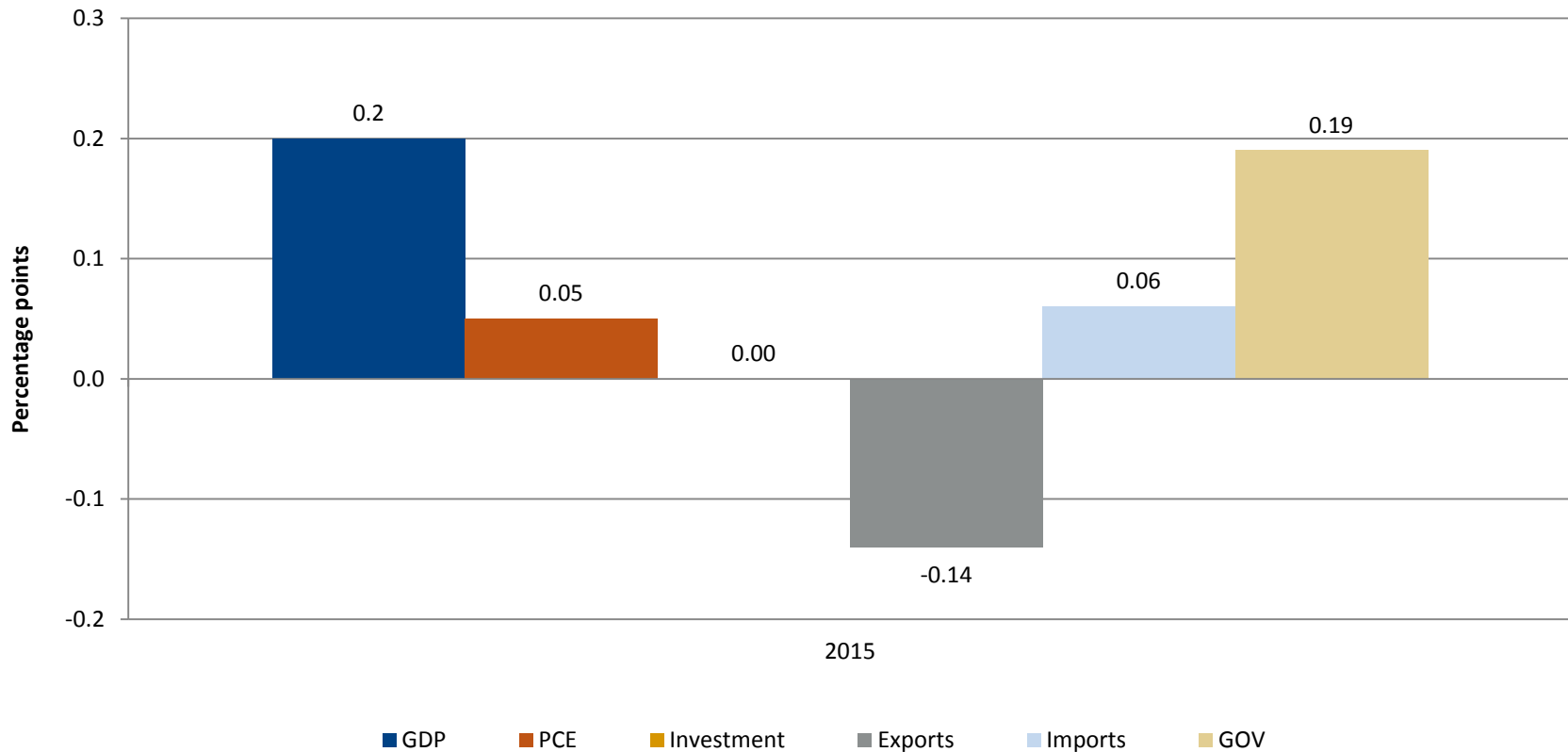
# Contributions to the revision to real GDP growth 2014

## GDP was unrevised at 2.4



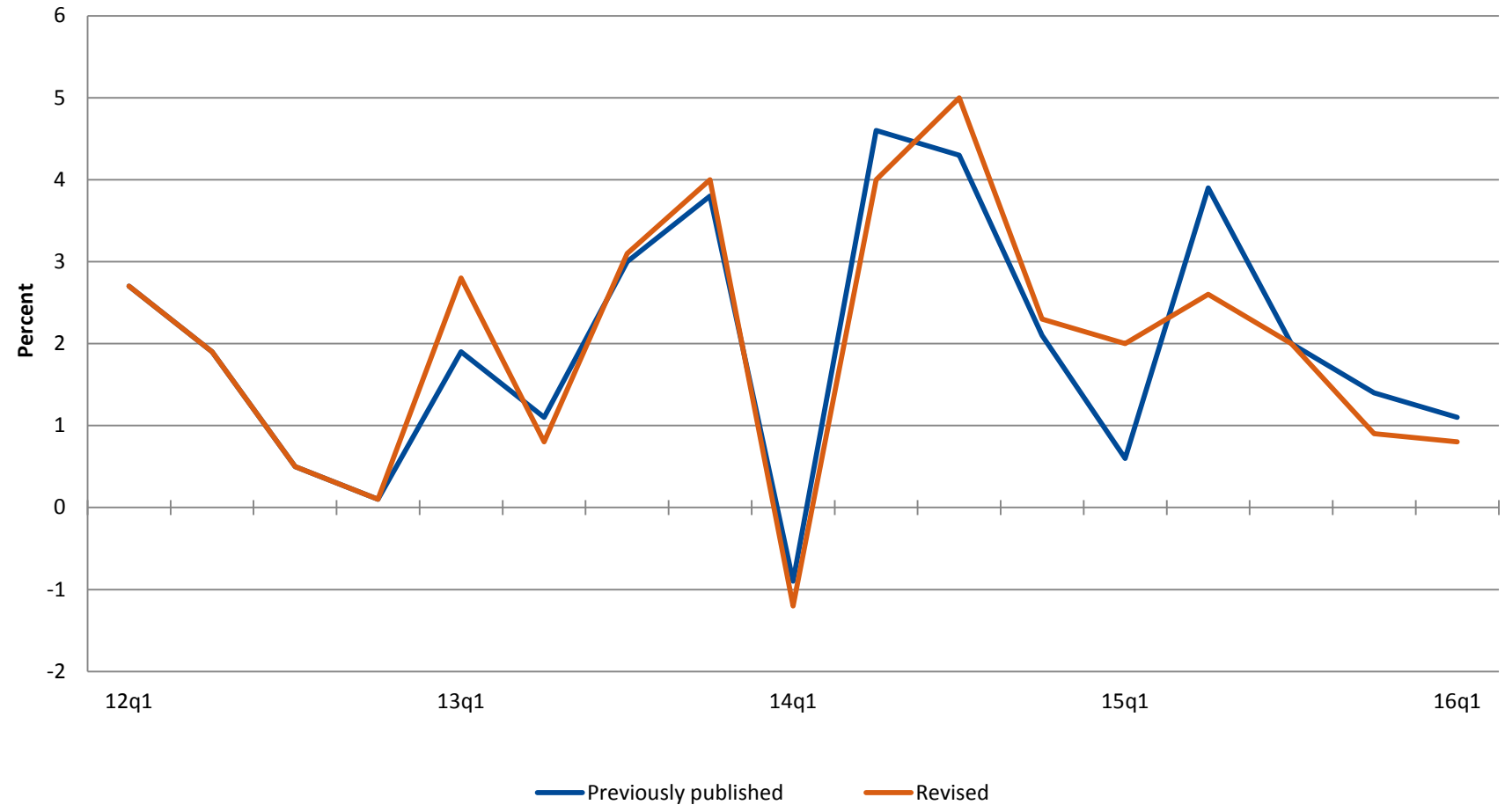
# Contributions to the revision to real GDP growth 2015

**GDP was revised from 2.4 to 2.6**



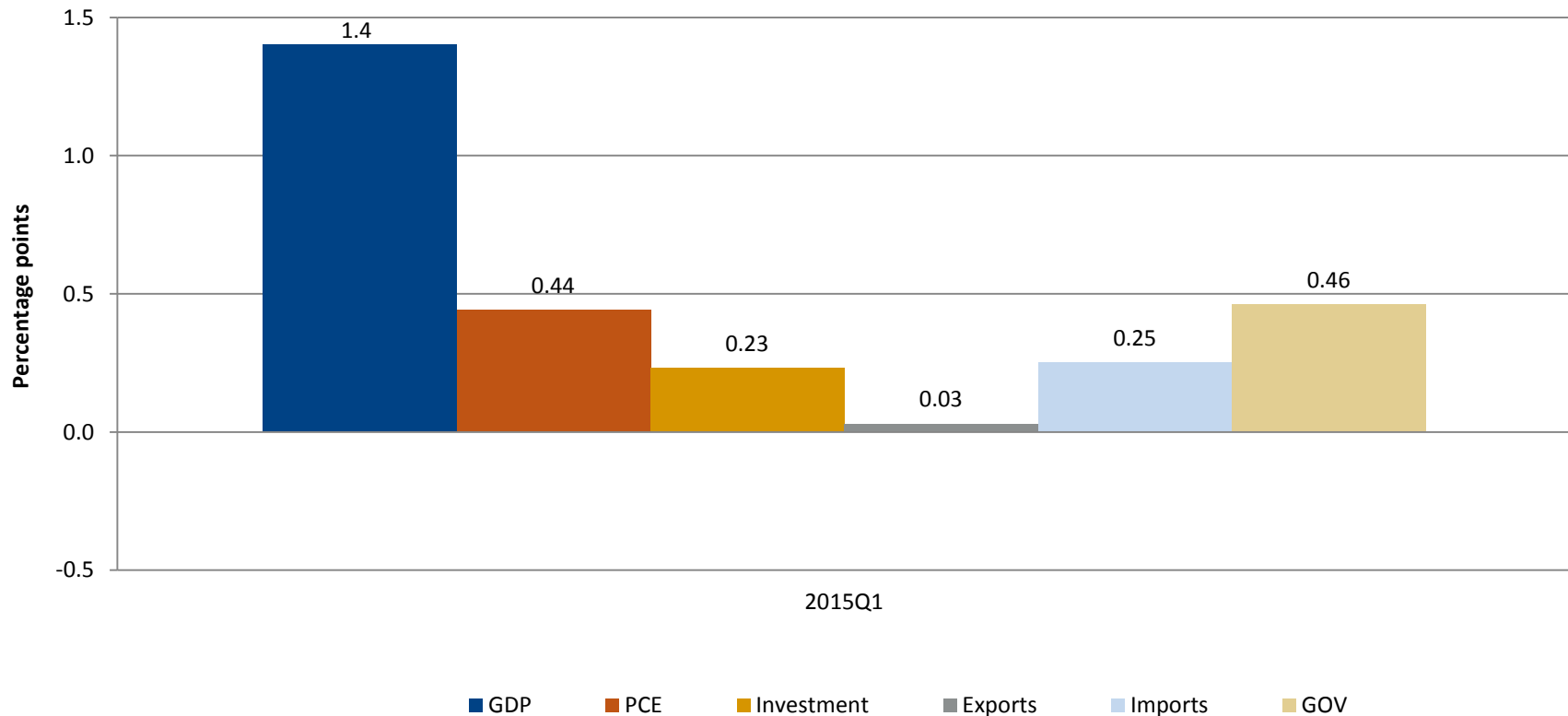
# Real Gross Domestic Product

[Percent change from preceding period, SAAR]



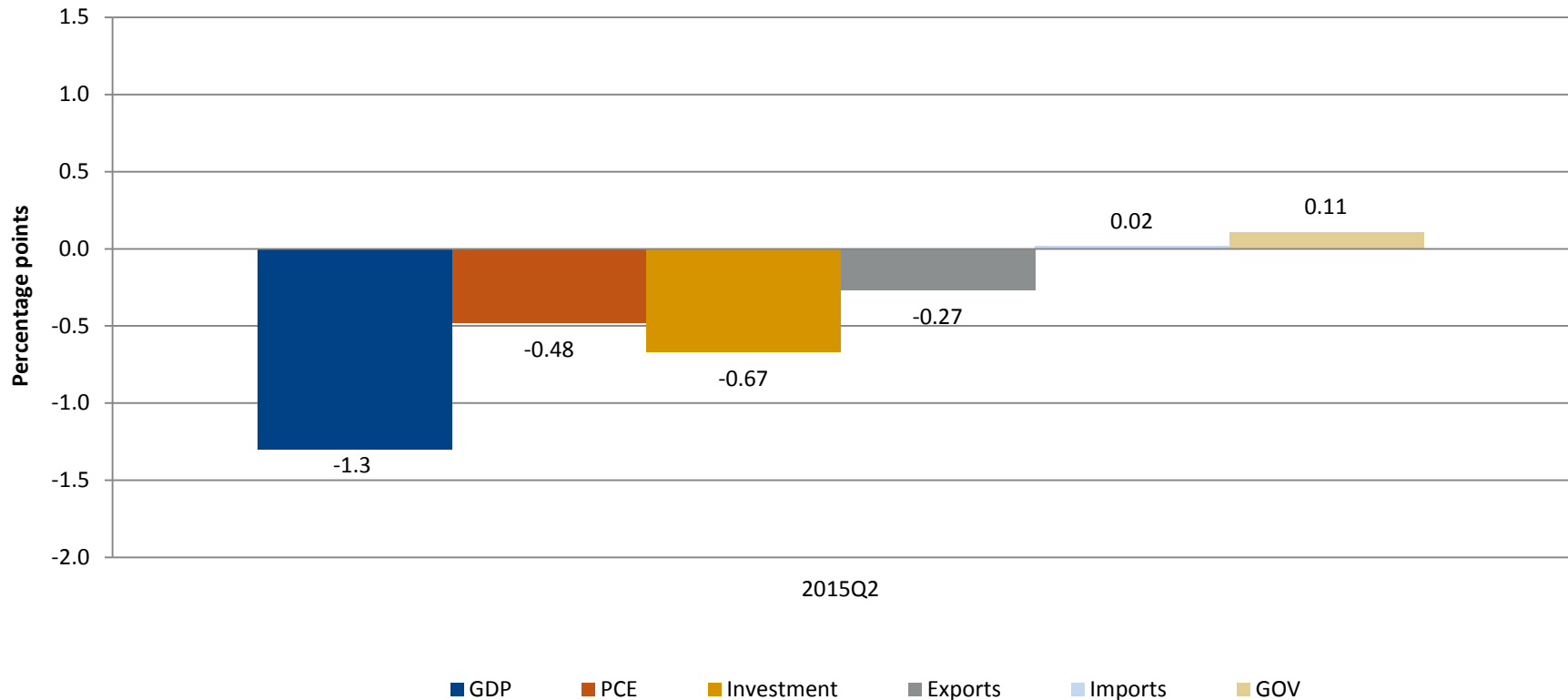
# Contributions to the revision to real GDP growth 2015Q1

**GDP was revised from  
0.6 to 2.0**



# Contributions to the revision to real GDP growth 2015Q2

**GDP was revised from  
3.9 to 2.6**



# Methodology Improvements





# Current Issue: seasonality

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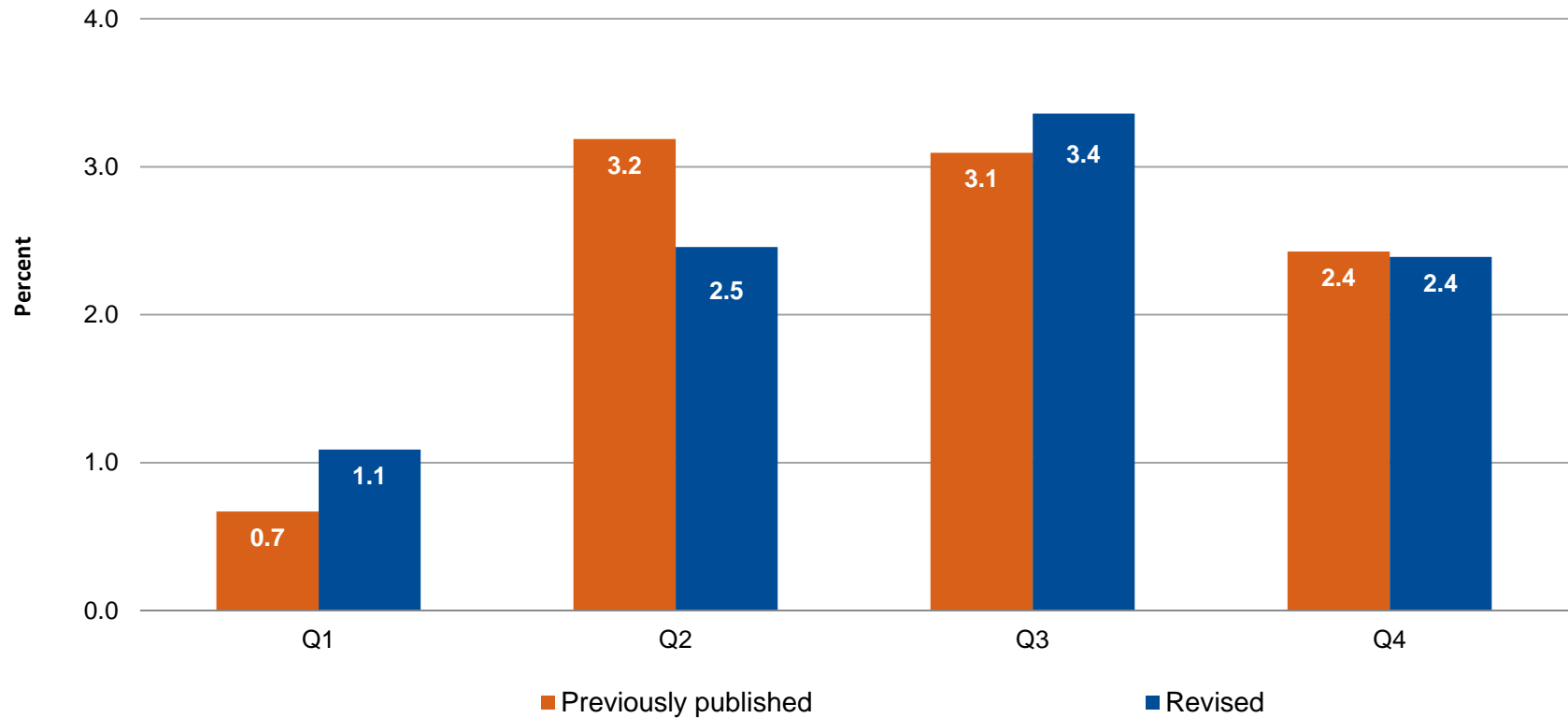


- Seasonal adjustment
  - Removes regular fluctuations that normally occur at about the same time and same magnitude each year
  - Facilitates analysis and interpretation of economic series
- Findings of BEA’s component-by-component analysis of residual seasonality
  - Tests are sensitive to the period selected-evidence for residual seasonality over some time spans and not for others
  - Residual seasonality can occur when monthly seasonally-adjusted data are rolled up to quarterly values
  - Improved historical data and not-seasonally-adjusted estimates available in 2018

For more information, read ***Residual Seasonality in GDP and GDI: Findings and Next Steps*** at [www.bea.gov/national](http://www.bea.gov/national)

- As usual, all seasonal adjustment factors updated
- Based on the component-by-component review, improvements made to seasonal adjustments:
  - Seasonal adjustment of state & local government investment in structures changed from monthly to quarterly frequency
  - Several detailed price series that hadn't been seasonally adjusted are now adjusted:
    - PCE services (transportation, communication, insurance)
    - Equipment investment (communications equipment)
    - State & local government (several components)

# Average of real GDP growth rates by quarter 2013Q1 to 2016Q1



# Advance inventory data

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- Census Bureau will accelerate release of inventory data
  - *Advance Economic Indicators Report* beginning July 28
  - Wholesale and retail trade data for the preceding month
- BEA will incorporate the new data beginning with advance GDP release on July 29
- Impact: Improve BEA's initial estimates of the change in private inventories
  - Previously, estimates were based on Census data for the first and second months of the quarter and an assumption for the third month
  - Now, advance estimates will be based on three months of Census data
  - Expected to reduce revisions between the advance and second GDP estimates
- On-going collaboration between Census and BEA to improve the accuracy and timeliness of advance GDP estimates.

# Revised residential construction data

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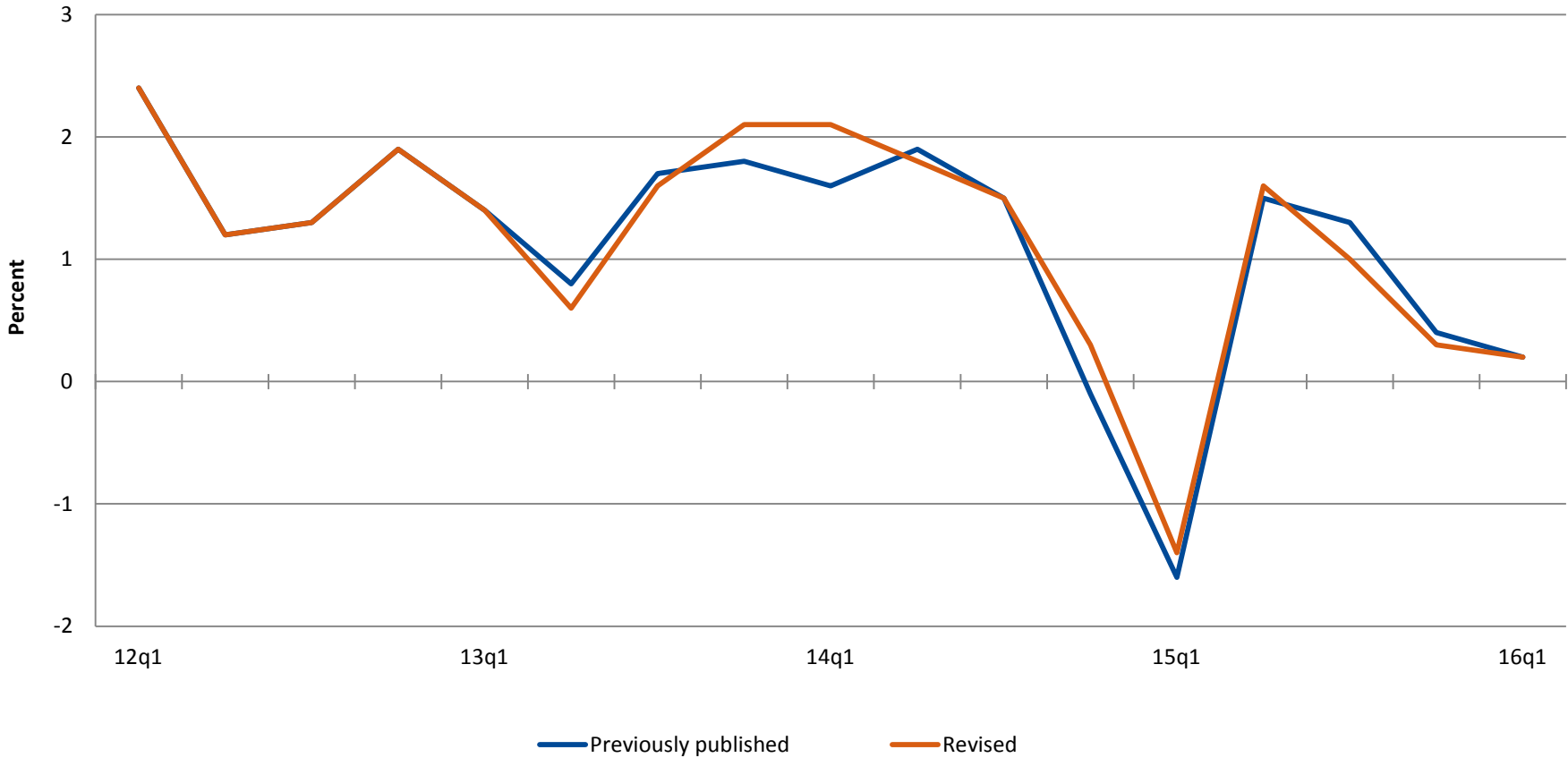
- **Census Bureau, November 2015:** revised construction spending, 2005 onward for residential improvements
- **BEA’s estimates for investment in residential improvements:**
  - Annual estimates use a 3-year centered moving average of Census data
  - Quarterly estimates are based on other Census and BLS source data
- **BEA’s 2016 Annual NIPA Update includes limited incorporation:**
  - Incorporates revised Census data for 2013 to 2015 on a “**best-change**” basis
  - Use of moving average dampens impact on GDP trends, cyclical movements
  - Potential revision to the reference year for chain estimates (2009)
- **BEA plans to incorporate full period in its 2018 NIPA update**

# Price Indexes



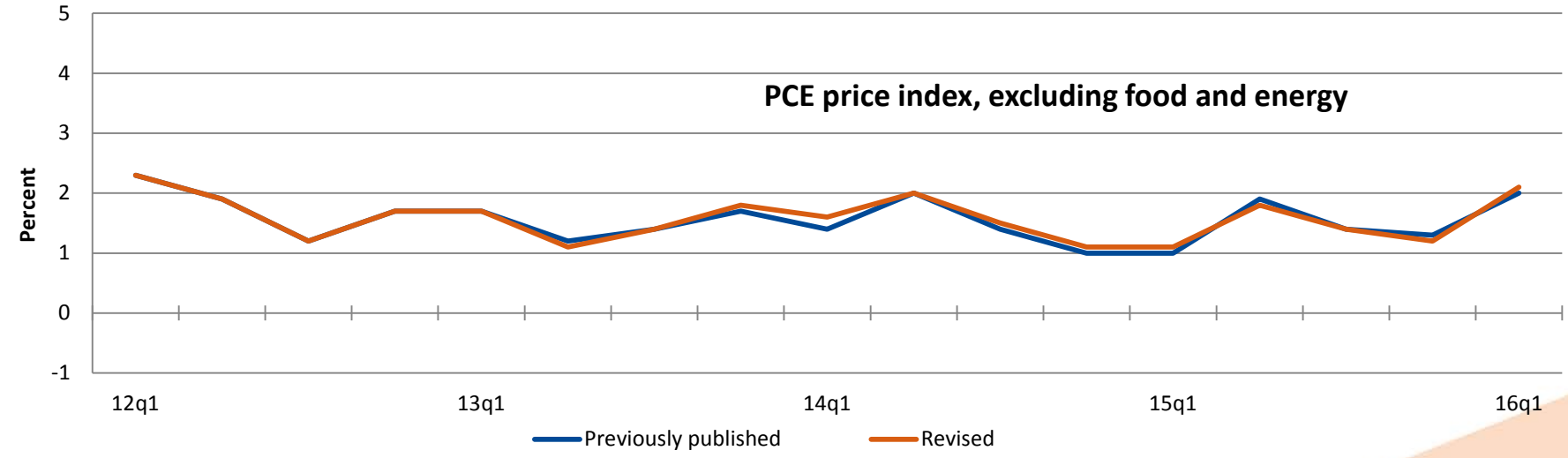
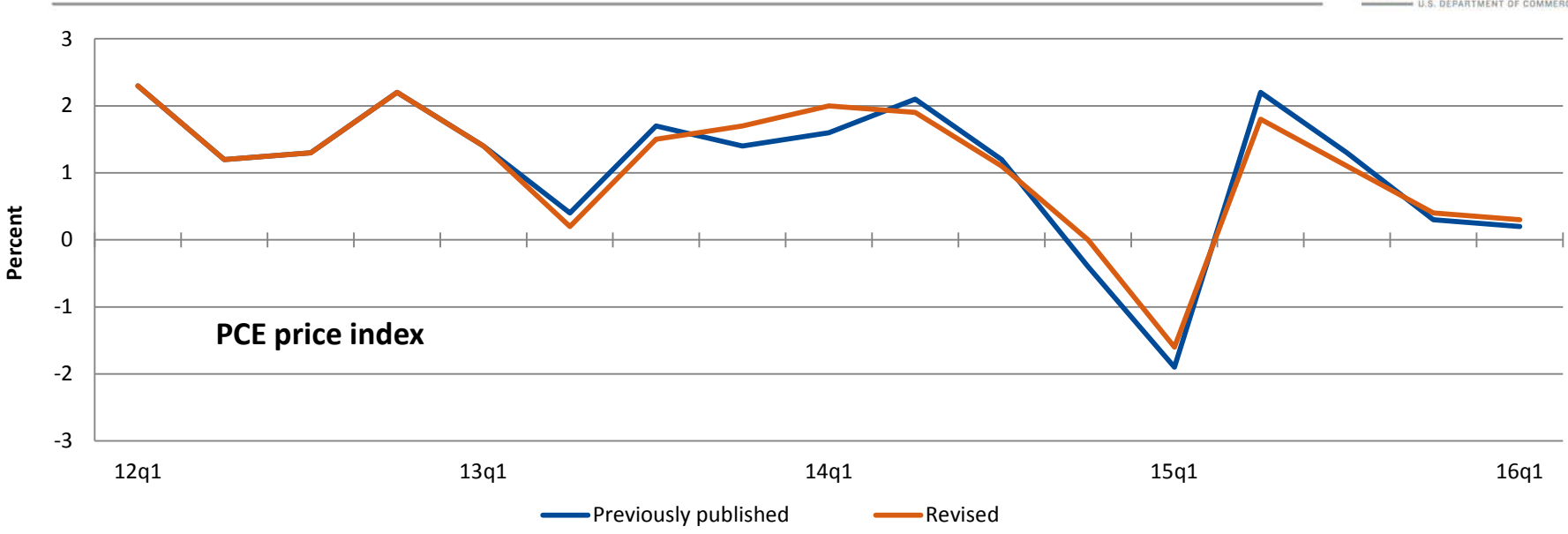
# Gross domestic purchases price index

[Percent change from preceding period, SAAR]



# Personal consumption expenditures price index

[Percent change from preceding period, SAAR]





# Gross Domestic Income



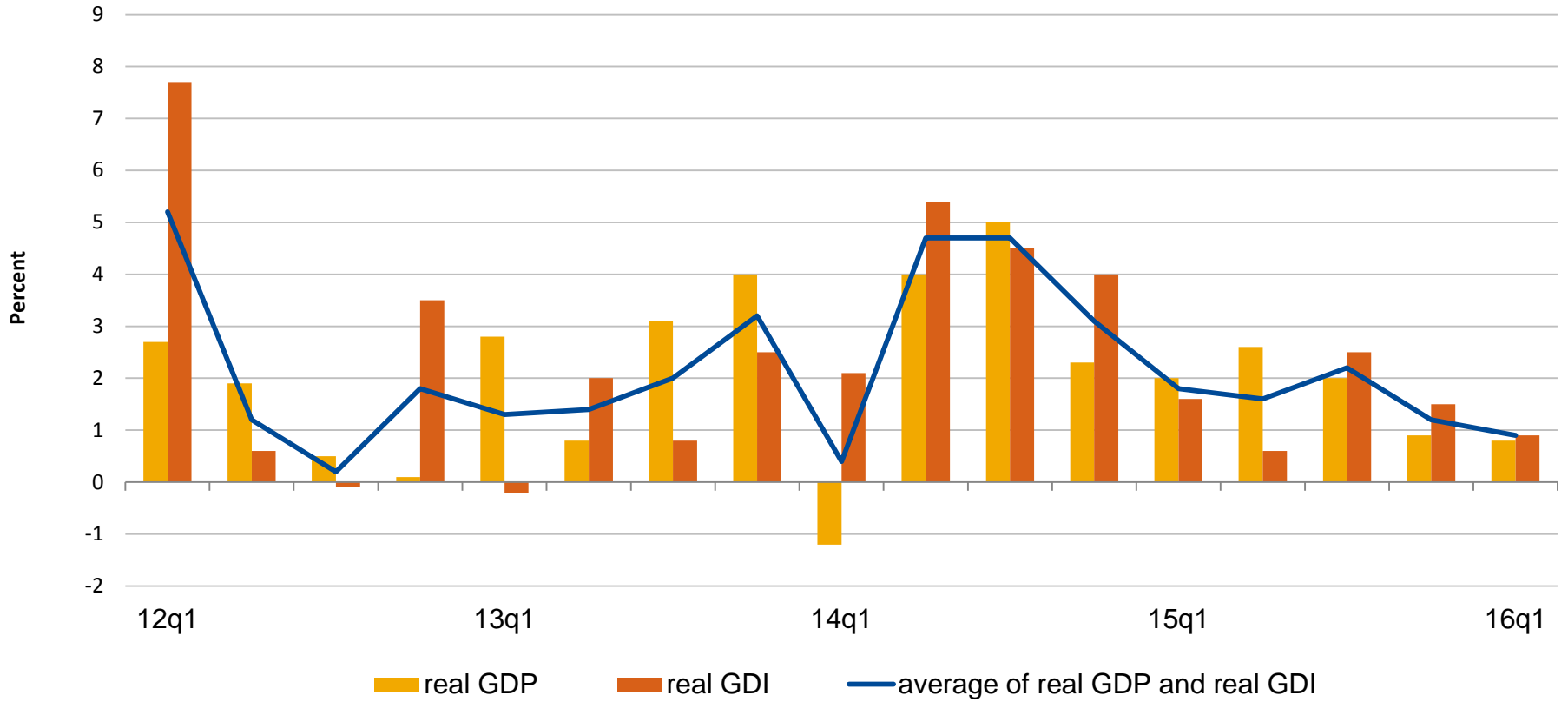
# Gross domestic income

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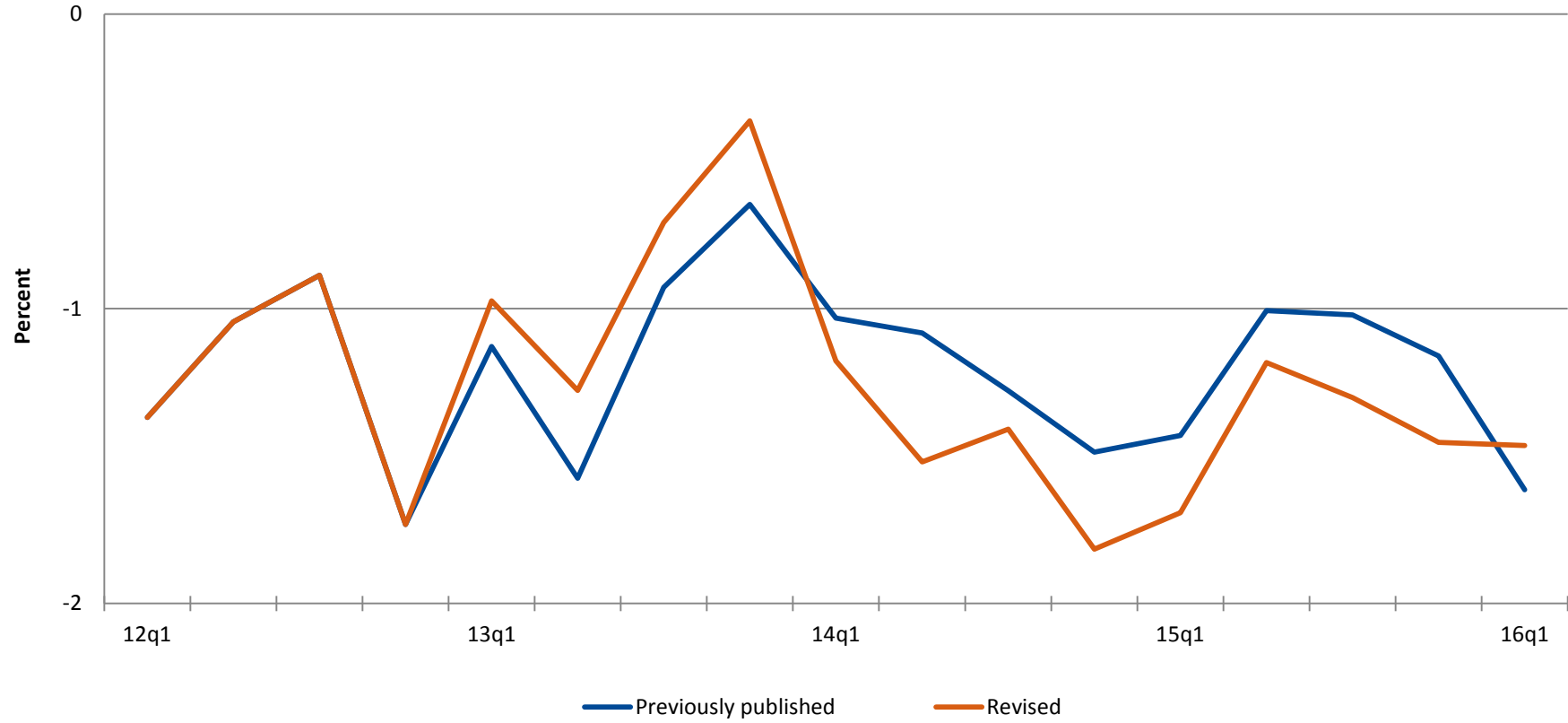
- **GDI = GDP in concept**
  - Incomes earned in production EQUAL the value of the final expenditures of goods and services produced
- **Statistical discrepancy**
  - Shows the difference (GDP – GDI) in practice
- **Average of GDP and GDI**
  - Simple average of the two
  - Helps reflect timing and measurement variations in GDP and GDI

# Real GDP and real GDI growth rates

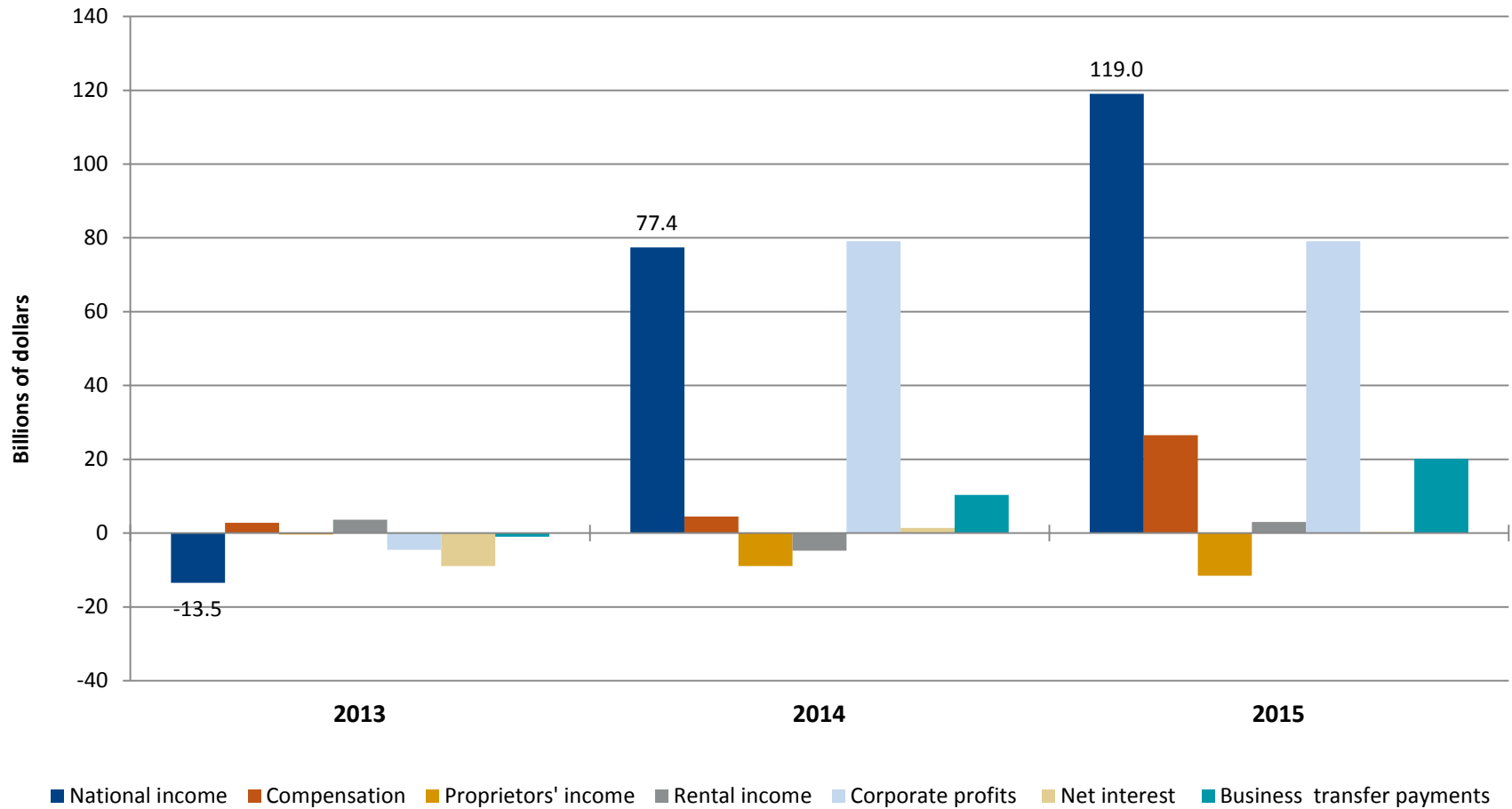
[Percent change from preceding period, SAAR]



# Statistical discrepancy as a percent of GDP

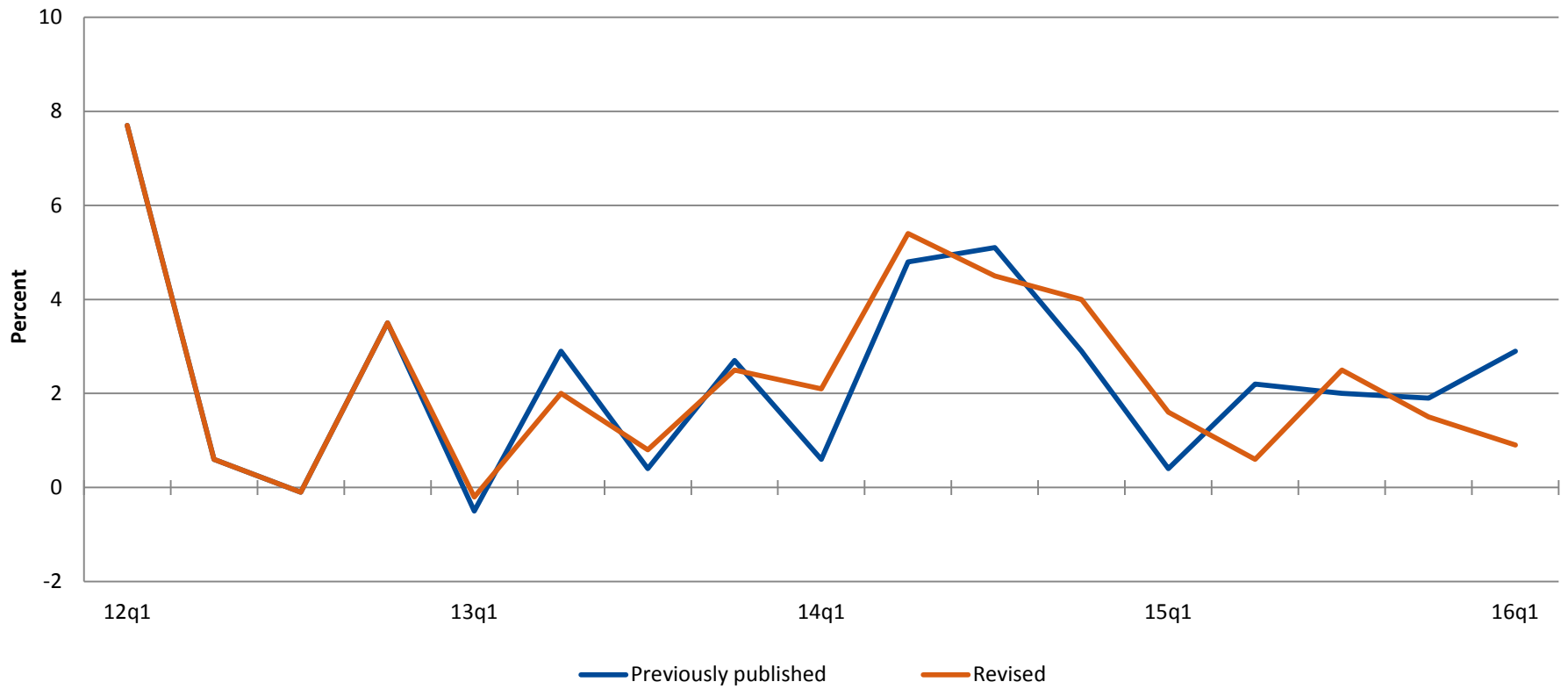


# National income revision in level 2013 to 2015



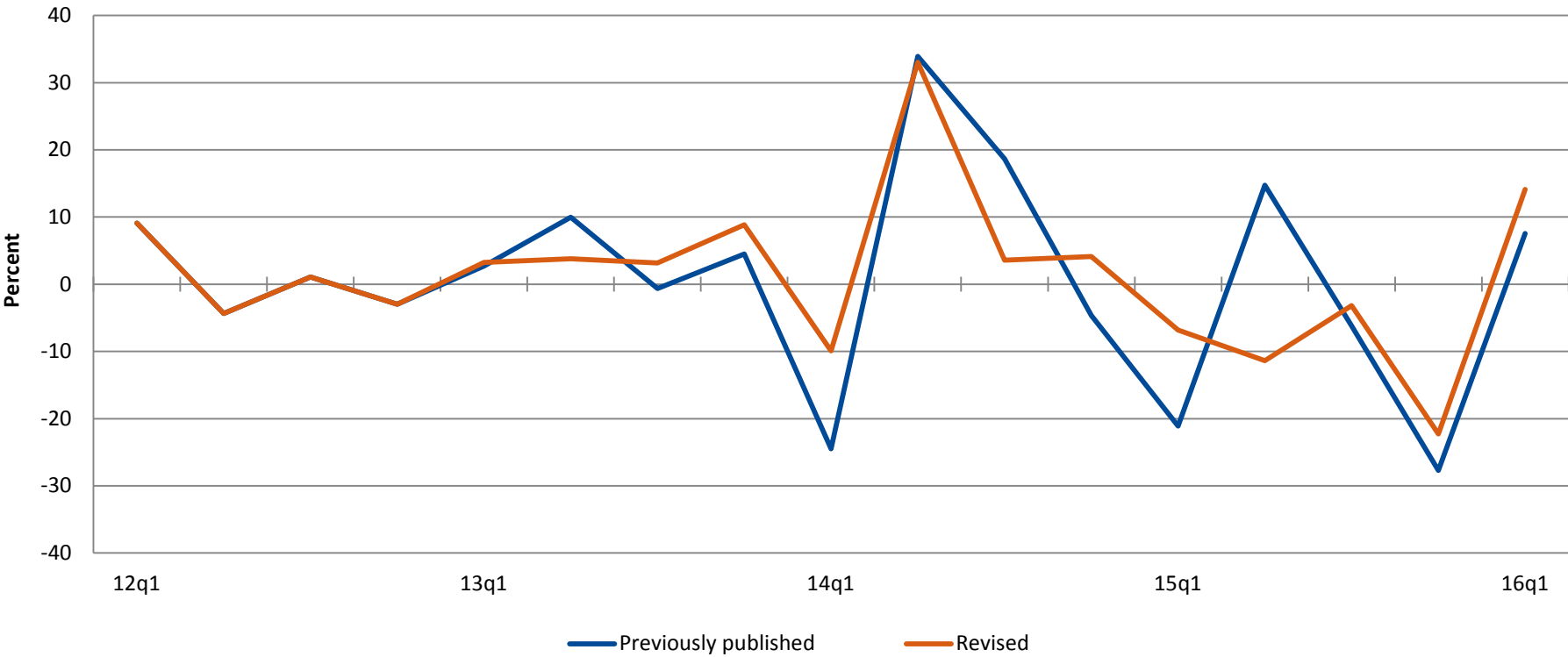
# Real gross domestic income

[Percent change from preceding period, SAAR]



# Corporate profits

[Percent change from previous period, SAAR]



# Personal income and outlays

- Revisions to average annual growth 2012Q4 to 2016Q1

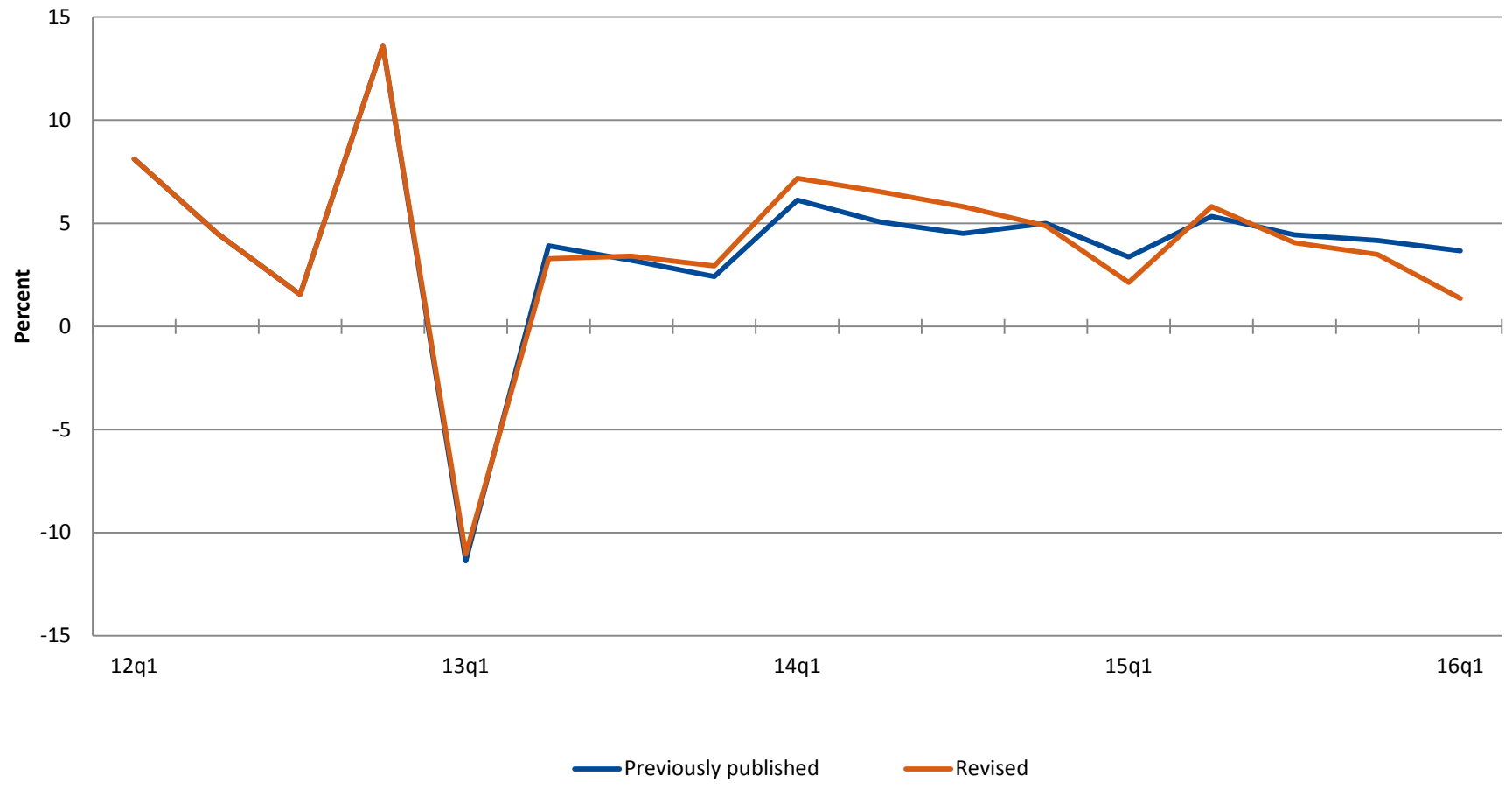
Component	Revision
Personal income	0.0
Disposable personal income	0.1
Personal outlays	0.0
Real DPI	0.1
Personal saving rate *	0.5

\* average of quarterly revisions over 2013Q1-2016Q1



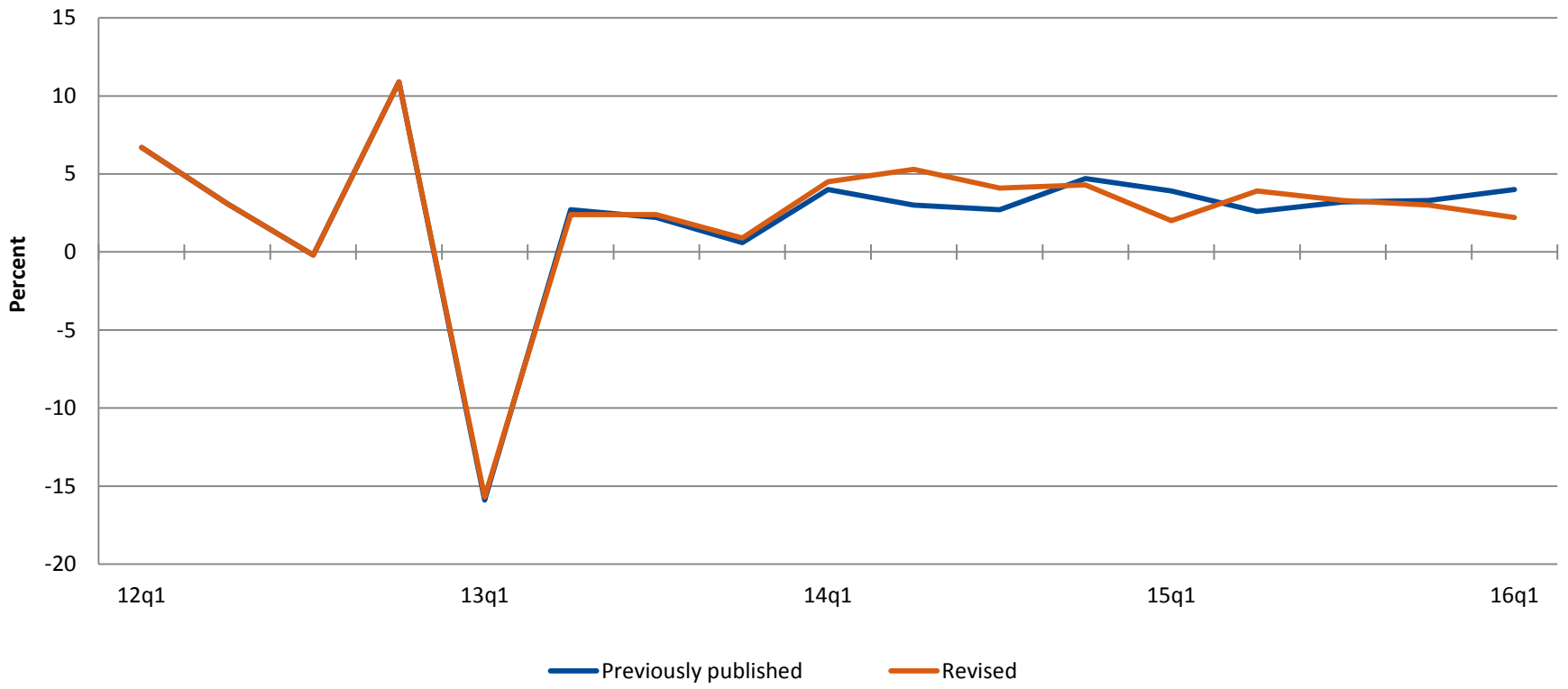
# Personal income

[Percent change from preceding period, SAAR]



# Real disposable personal income

[Percent change from preceding period, SAAR]



# Personal saving rate

[Personal saving as a percentage of disposable personal income]

