US Regional Economics

Presentation

City of Philadelphia Revenue Outlook, 2019-2024

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Global and United States Economic Outlook

Global economic growth is slowing as financial volatility increases

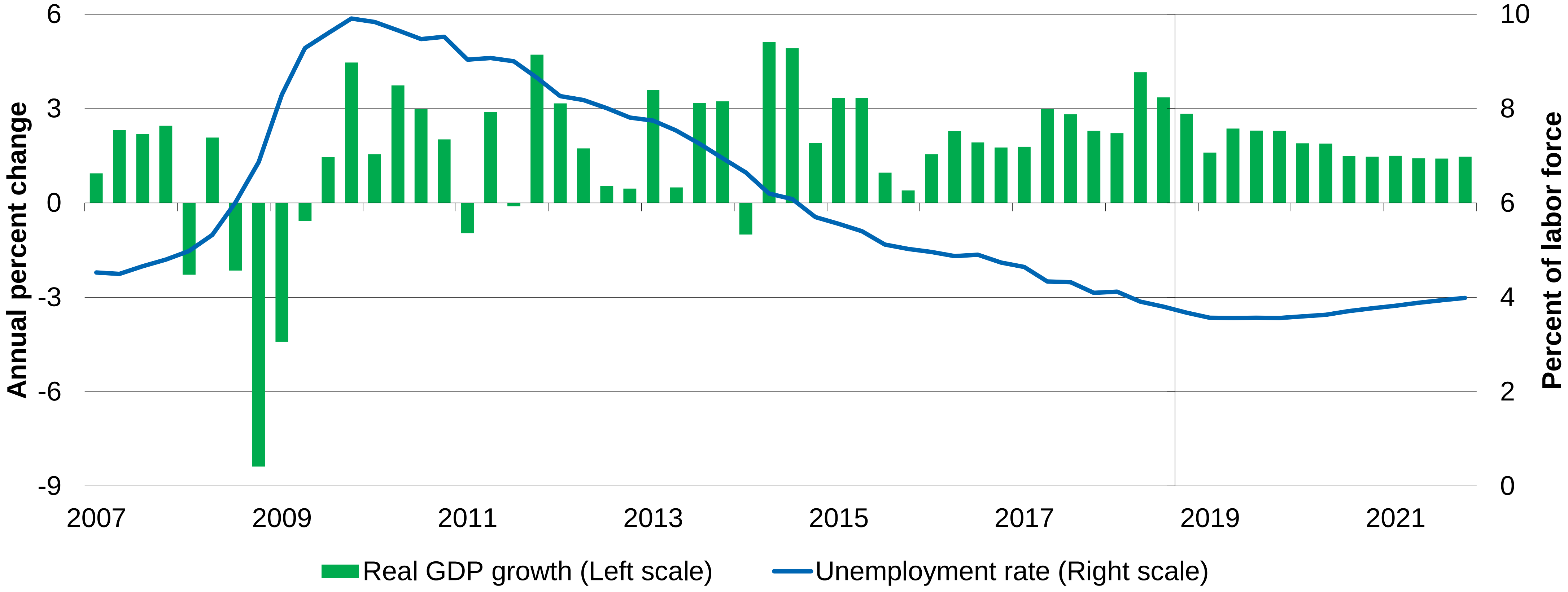
- The period of above-trend economic growth is ending.
- Financial conditions are tightening and volatility has increased.
- The combined effects of policy uncertainty and financial volatility are hurting business sentiment and investment.
- In the United States, fiscal stimulus will continue to fuel growth in 2019, but inflationary pressures and policy tightening will restrain growth in 2020–21.
- China's growth will be slowed by US tariffs, deleveraging, and excess capacity. Government stimulus will provide some offsetting support.
- Europe's growth will be restrained by weakening global trade dynamics and political uncertainties, including the United Kingdom's Brexit path.
- Emerging markets that depend heavily on external finance, such as Turkey, Argentina, and South Africa, are vulnerable.

Financial-market strains weigh on near-term growth

- Diminishing confidence in the strength of the global expansion has led to sharp declines in equity and commodity prices, widening interest-rate spreads, and dollar appreciation. These forces will trim near-term US growth and inflation.
- Amid this financial turbulence, US economic fundamentals remain sound, suggesting above-trend annual real GDP growth of 2.5% in 2019.
- Tight US labor and product markets are still expected to push inflation modestly above the Federal Reserve's 2% objective by 2020.
- The Fed is expected to raise the federal funds rate to a high near 3.25% in mid-2020, temporarily surpassing its long-run equilibrium of 2.75%. Recent comments have signaled flexibility in future rate increases, depending on underlying economic indicators.
- Real GDP growth will subside to 2.0% in 2020 and 1.5% in 2021 in response to higher interest rates, waning support from fiscal stimulus, and capacity limits.
- As the US economy makes the transition from above-trend to below-trend growth, the risk of a downturn will rise.

The US economic expansion will continue, pushing the unemployment rate down to 3.6% in 2019

Real GDP and unemployment



Source: IHS Markit

US economic growth by sector

Real GDP and its components				
Percent change	**2017**	**2018**	**2019**	**2020**
Real GDP	2.2	2.9	2.5	2.0
Consumption	2.5	2.7	2.6	2.3
Residential investment	3.3	-0.3	-0.9	4.3
Business fixed investment	5.3	6.9	4.0	2.7
Federal government	0.7	3.0	4.9	0.5
State & local government	-0.5	1.0	1.3	0.9
Exports	3.0	4.0	4.1	5.6
Imports	4.6	4.9	6.0	5.8

Source: IHS Markit

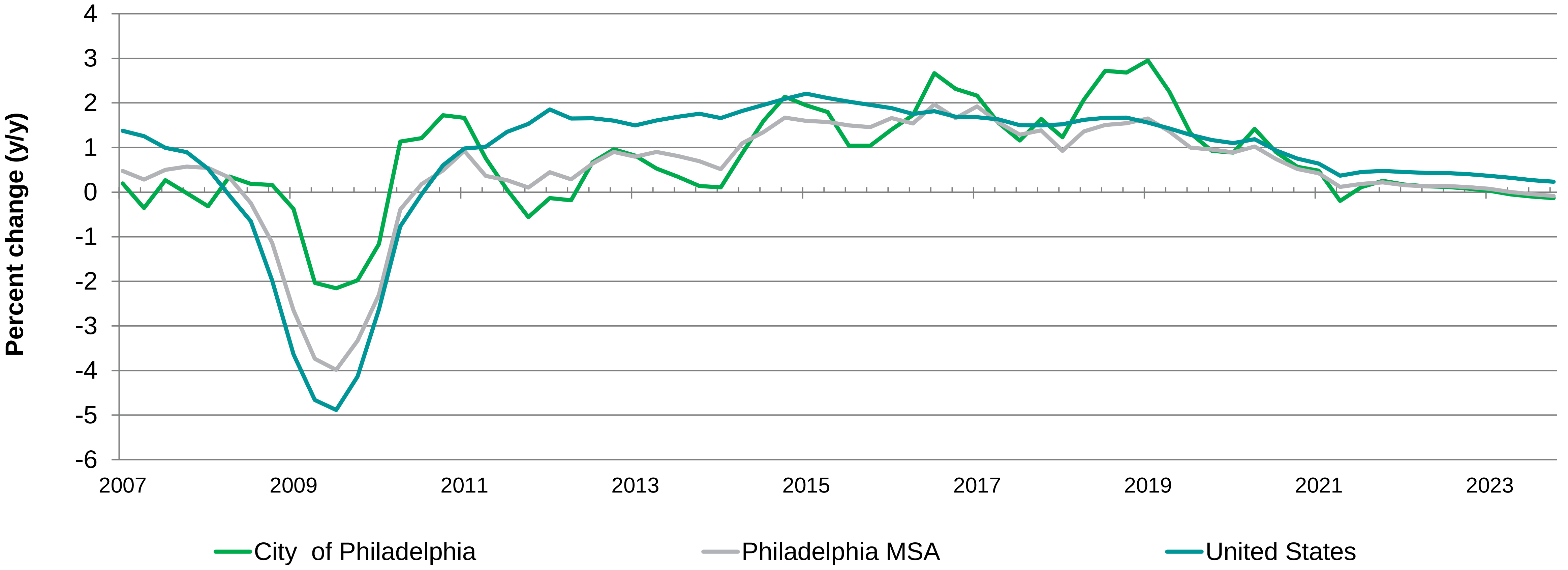
Risks to the US Forecast

Scenario	Characteristics
Loss of confidence and risk aversion result in a three-quarter recession (Probability = 25%)	• After a record-long expansion, real GDP contracts over three quarters beginning in the first quarter of 2020. • A broad loss of confidence and corrections in real estate prices and equity values lead to declines in homebuilding, business investment, and consumer durables spending. • With limited scope for policy stimulus, recovery is slow.
Strong productivity growth and a less inflation-prone economy (Probability = 15%)	• Faster productivity gains restrain inflation and boost real income growth. Real GDP growth averages 1.1 percentage points higher than baseline rates over 2019–28. • Household formation picks up, supporting homebuilding. • The full-employment unemployment rate is 4.0%. • Stronger global economic growth boosts exports.
Baseline forecast (Probability = 60%)	• Tax cuts and higher federal spending boost near-term economic growth, but aggravate federal budget deficits. • The Federal Reserve raises the federal funds rate twice in 2019 and once in 2020, to a range of 3.00–3.25%. • The full-employment unemployment rate is 4.6%. • Consumer spending and business fixed investment post sustained, moderate growth.

Regional Economic Outlook

Employment at all geographic levels slows later in forecast period

Payroll employment growth



Source: IHS Markit, BLS

Wage growth strengthens as labor market tightens

Growth in Wage Disbursements

Source: IHS Markit, BEA

Wage growth accelerates as Philadelphia region approaches full employment

Key Economic Indicators

	2018	2019	2020	2021	2022
Philadelphia MSA			*Percent change*		
Payroll employment	1.2	1.5	1.0	0.4	0.2
Average annual wage	2.5	2.5	3.4	3.7	3.9
Total wage disbursements	3.8	4.0	4.4	4.2	4.1
Personal income	3.8	4.0	4.3	3.9	3.8
Real gross metro product	1.9	2.3	1.7	1.2	1.1
City of Philadelphia					
Payroll employment	1.5	2.7	1.1	0.4	0.2
Average annual wage	2.3	2.3	3.2	3.7	3.8
Total wage disbursements	3.9	5.0	4.4	4.1	4.0
Personal income	2.8	4.6	4.4	3.9	3.8
Real gross metro product	2.5	2.7	1.8	1.2	1.1

•Source: IHS Markit

Forecast Methodology

Model Structure – Underlying Economic Drivers

- Wage and Earnings Taxes
  - wage income
- Sales Tax
  - personal income
- Business Income and Receipts Tax
  - Net Income - U.S. corporate profits, local proprietor’s income
  - Gross receipts – local economic output
- Realty Transfer
  - Residential – home sales and prices
  - Commercial

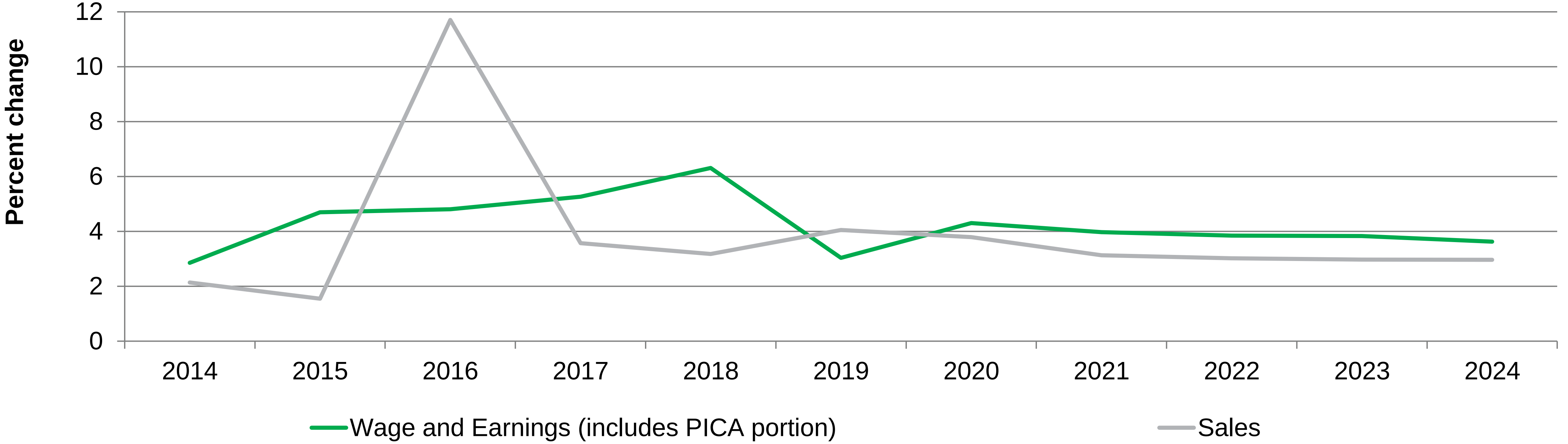
Model Structure, continued

- Net Profits Tax
  - Local proprietors’ income
- Parking
  - MSA-level personal income
- Miscellaneous
  - Time series models

Revenue Outlook

Wage tax growth backs off after strong 2018; sales tax stays near recent growth range

Wage and earnings tax and sales tax revenue growth



Source: IHS Markit, City of Philadelphia

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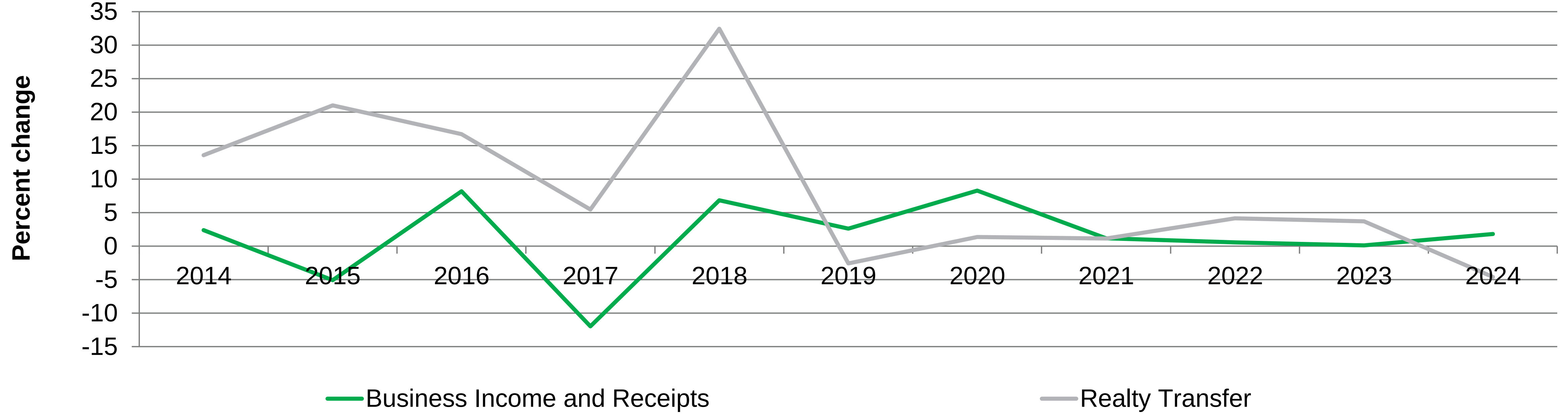
- Wage and earnings tax growth in 2018 featured an unusually large net accrual (+$30 million). We allow for some pullback in that net effect for FY19 (-$15 million).
- Wage and sales likely suffered modest losses due to Federal government shutdown – Federal workers did get paid, but some local business was lost.

Real estate transfer tax growth slightly negative after huge 2018, while BIRT continues to gain

BIRT and Realty transfer tax growth



Source: IHS Markit, City of Philadelphia

- Realty transfer tax receipts were driven up by commercial real estate transactions in FY2018. Big deals are still being done, but pace of activity not expected to maintain that pace.
- Home prices continue to rise, although higher mortgage interest rates and changes to Federal tax laws on mortgage interest deductions are putting downward pressure on gains. Volume of home sales is limited somewhat by availability of homes, especially in the mid-price range. Higher mortgage rates also keeping some homeowners in place.

Risks and opportunities for city/regional growth

Philadelphia outlook – factors to consider in the face of potential national or global economic slowdown

- Diversity of local economy, mix of major sectors tends to make the Philadelphia region less reactive to ups and downs in national and global economy – in investment terms, has a beta of less than 1
- Industry mix contributes to this steadiness
  - Education in particular can be counter-cyclical – demand rises when economy is weak
  - Health care steady, especially given the city’s status as a regional center of excellence
  - Leisure and hospitality tends to suffer, although location makes it attractive for lower-cost trips for many
  - Manufacturing share relatively low – mainly pharma, which also should maintain demand better than many products
  - Smaller presence in some high-growth sectors; high-tech research and development, as well as production

Philadelphia outlook – factors to consider in the face of policy uncertainties related to trade and immigration

- Philadelphia region ranked 10th among U.S. metro areas for total real exports in 2017, at $32.7 billion*
  - Export share of GDP was 8.1%, which ranked 63rd
  - 215,280 “export-supported” jobs – direct and indirect
- City features a robust export business in services
  - financial management, education, travel and tourism, IT royalties
    - little direct effect from tariffs, but potential impact on education from visa restrictions; impact on tourism from perception of being unwelcome?
    - Uncertainty related to Brexit could open some opportunities, but on balance just sowing confusion
    - Manufacturing reliance relatively low – mainly pharma
    - Port activity likely to slow due to tariffs
- International in-migration an important source of new workers for major cities – helps to offset net loss in domestic migration

- Source: Global Cities Initiative, Brookings and JP Morgan Chase