

Preliminary AEO2018 Macroeconomic Results



For

Macroeconomic Working Group

July 20, 2017 | Washington, DC

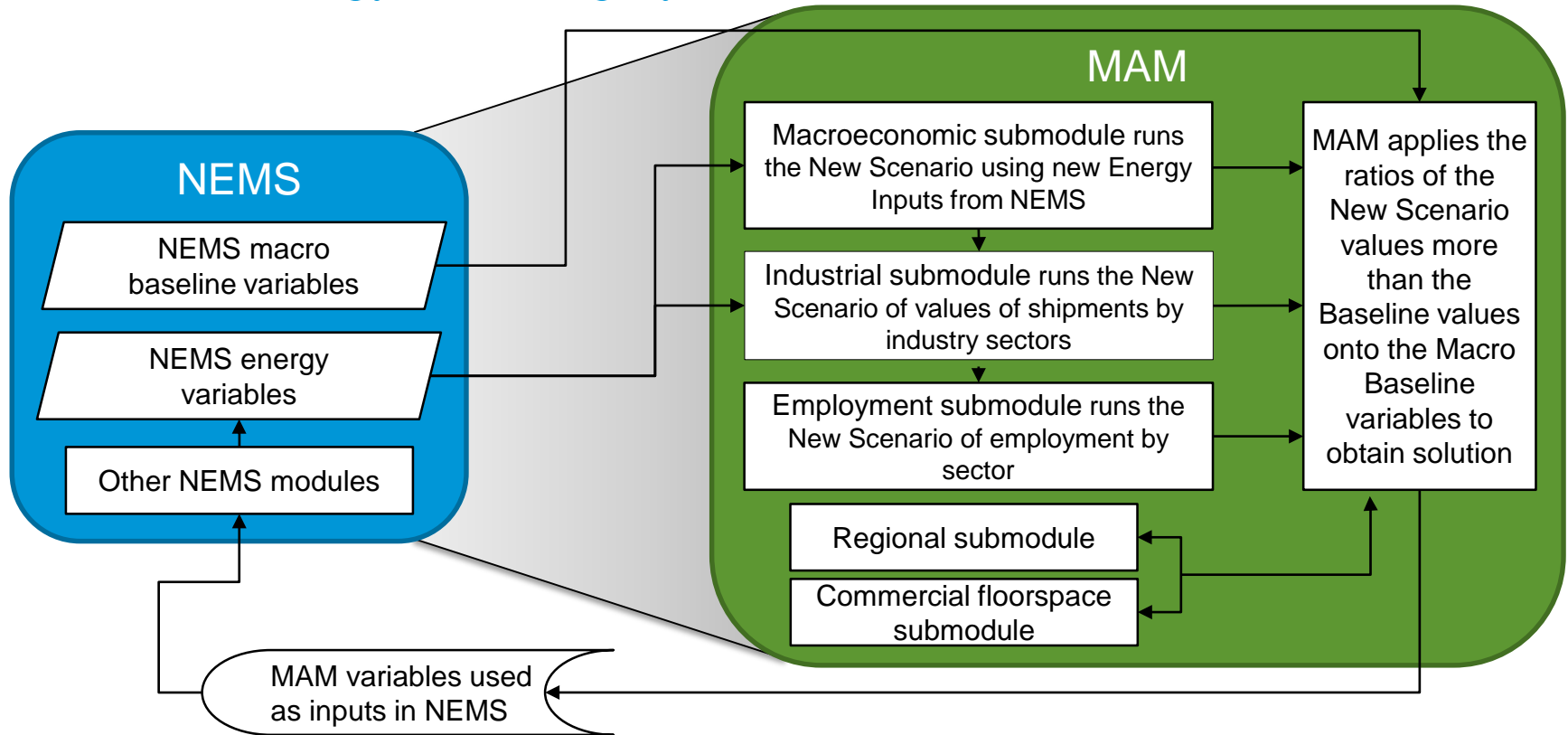
By

Macroeconomic Analysis Team

Key preliminary results

- Preliminary AEO2018 real GDP grows an average of 2.1% from 2017-2050, similar to AEO2017 and other projections/forecasts
- Preliminary AEO2018 manufacturing output grows 2.2% per year on average from 2017-40, nonmanufacturing 1.5%; both similar to AEO2017
- Preliminary AEO2018 employment growth is concentrated in services and construction

Summary of the Macroeconomic Activity Module (MAM) in the National Energy Modeling System (NEMS)

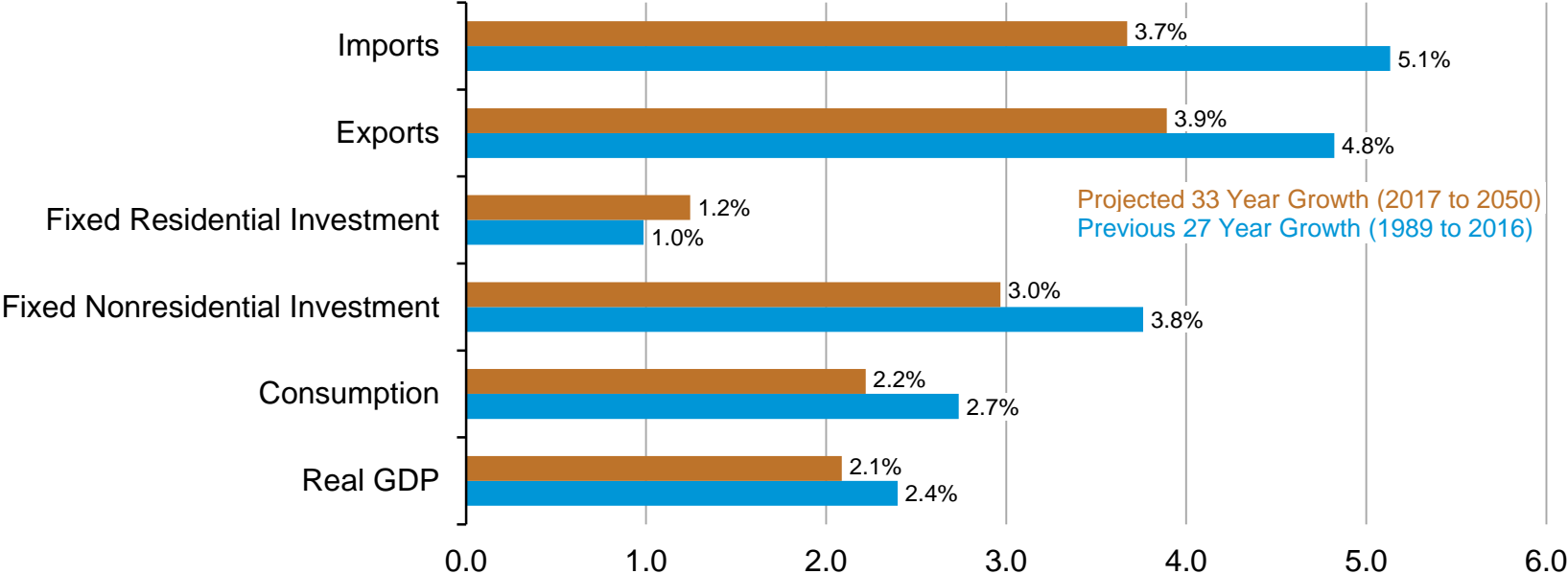


Key changes from last AEO

- Added 70 energy-related variables to the U.S. model
- Aggregated employment model for industries to higher-level NAICS designations
- Improved the regional industrial output model
- Updated historical data
- Planned for testing:
 - Industrial feedback model
 - Technology side case model

Growth in GDP and most of its components is slower in the preliminary AEO2018 projection than history

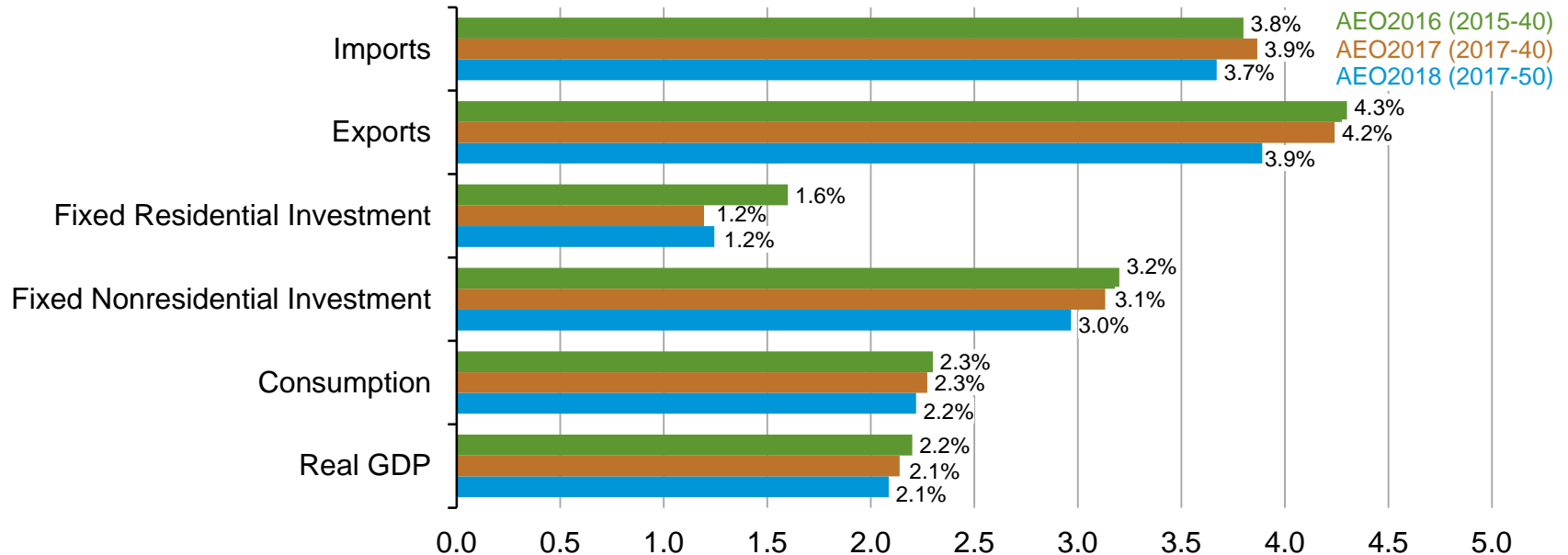
average annual percent growth



Source: AEO2018 Preliminary run

The preliminary AEO2018 projection for GDP and its components is similar to recent projections

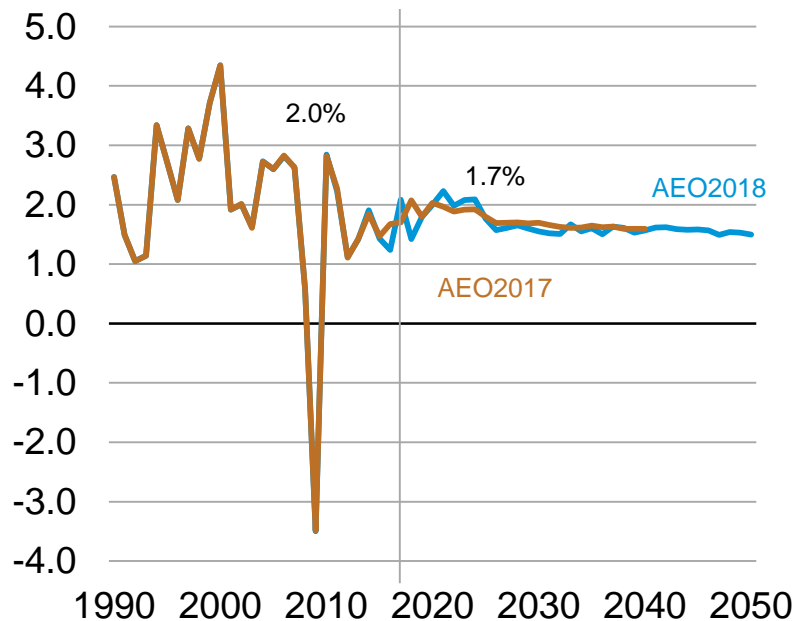
average annual percent growth



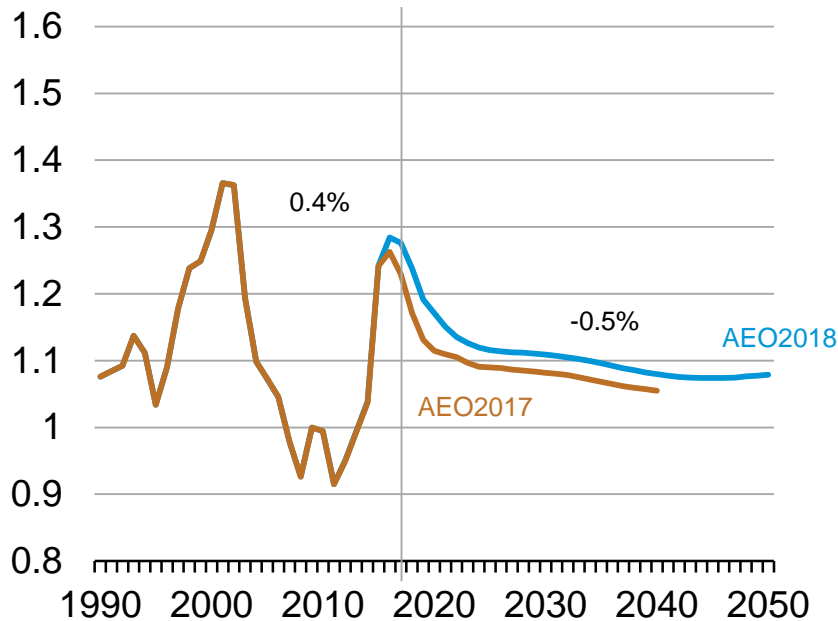
Source: AEO2018 Preliminary run

Economic growth in major trading partners slows over the projection period while the dollar gradually depreciates

real trade-weighted GDP of major trading partners
percent



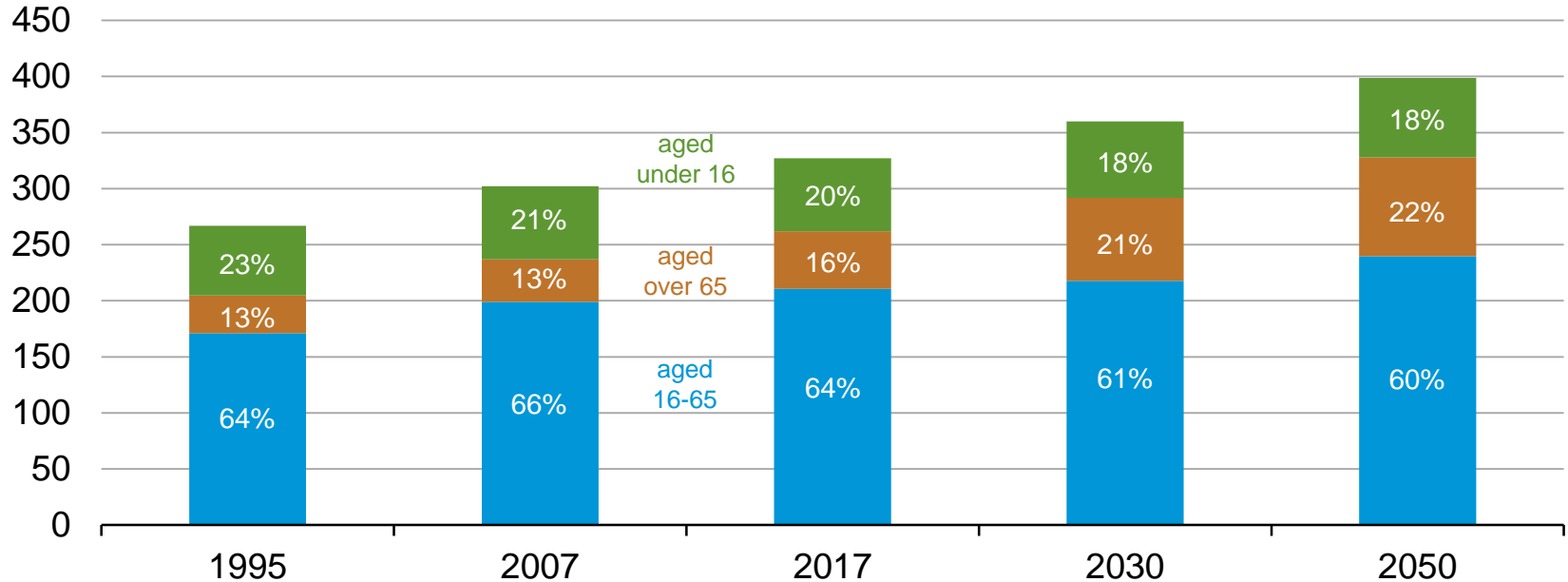
real trade-weighted exchange rate, USD: major currencies
2009 = 1.0



Source: AEO2018 Preliminary run

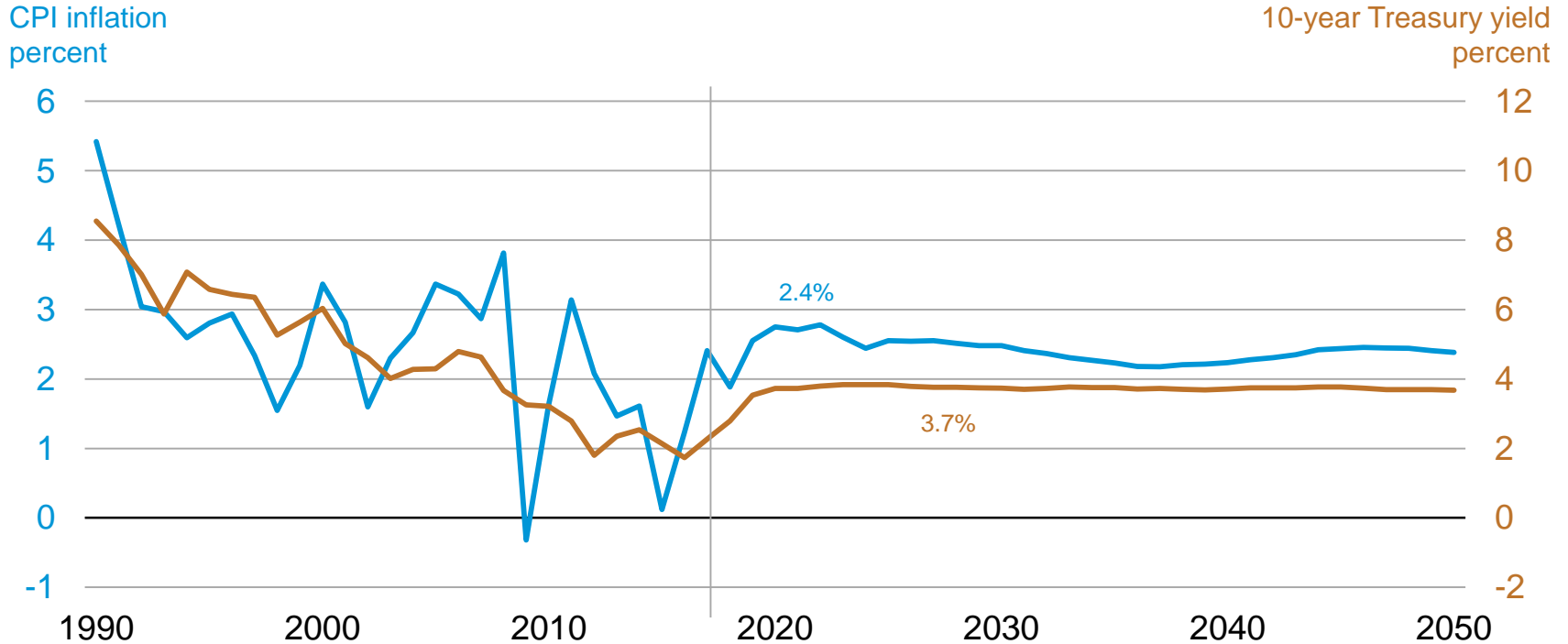
Demographic factors are an important component of the macroeconomic projections

population
million persons



Source: AEO2018 Preliminary run

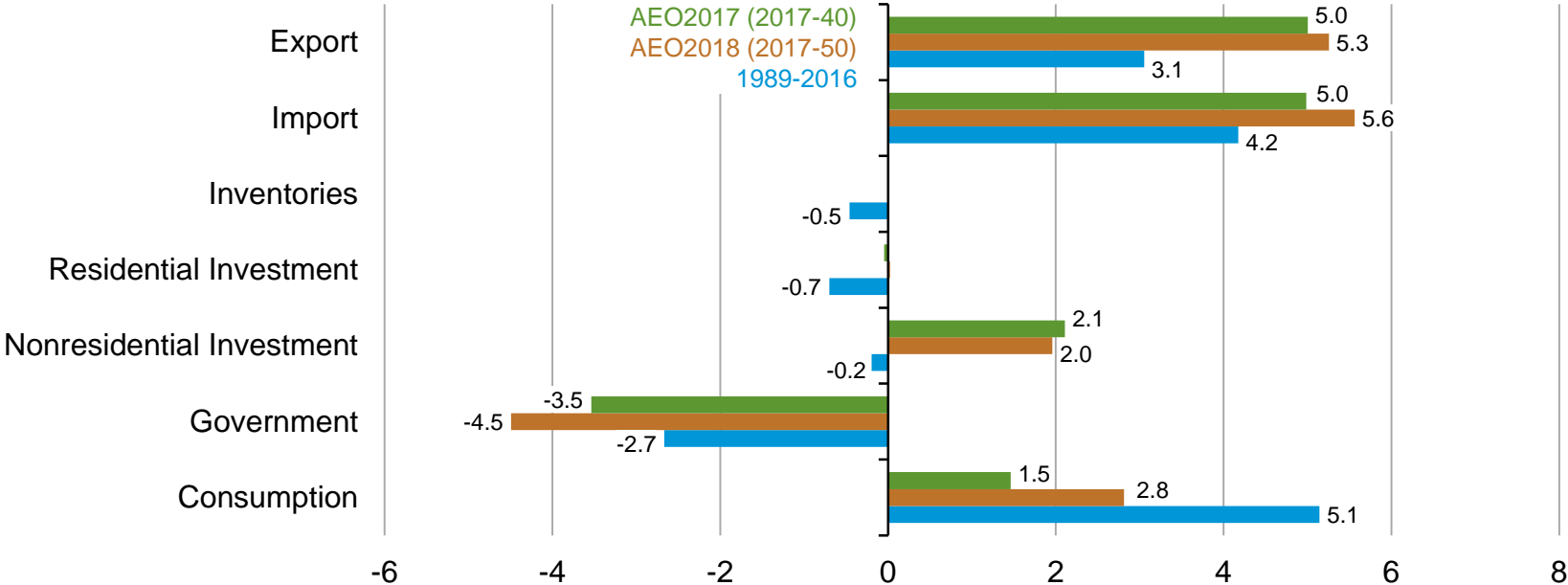
Inflation remains moderate throughout the projection and bond yields gradually rise from historic lows



Source: AEO2018 Preliminary run

Consumption's importance in the demand mix fades as non-residential investment becomes more important

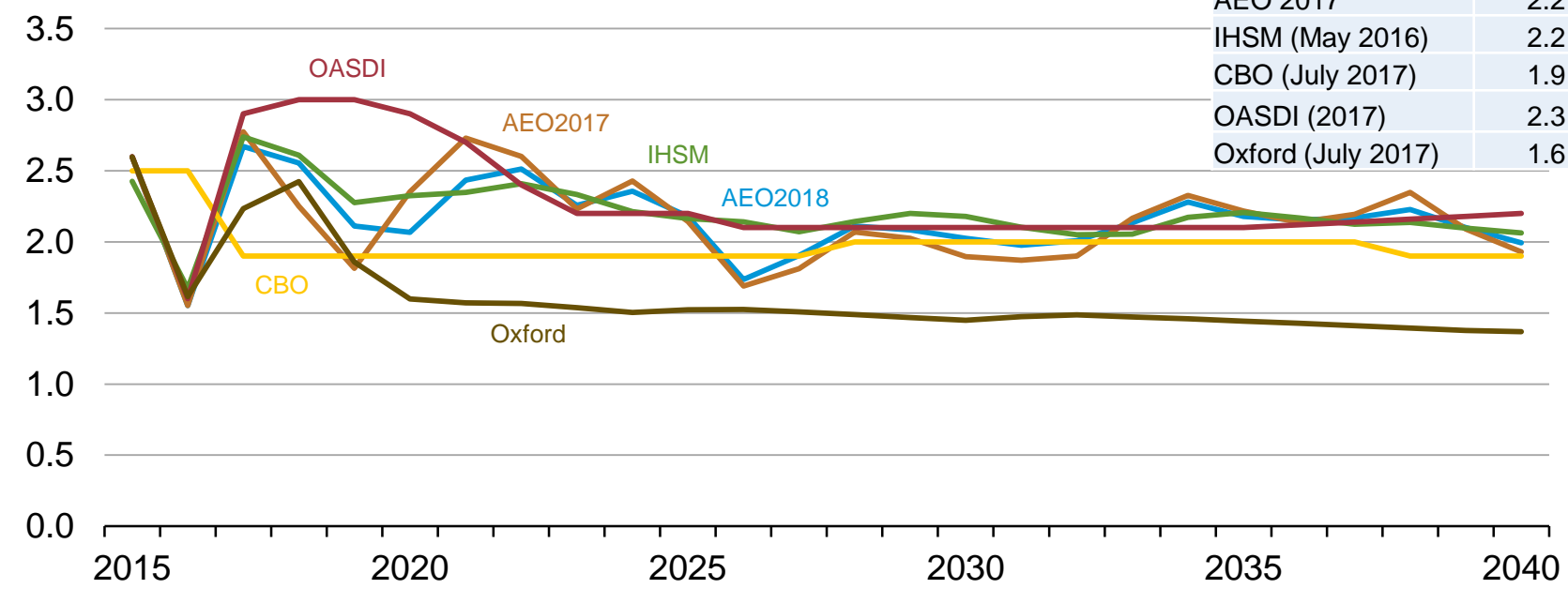
change in GDP share



Source: AEO2018 Preliminary run

Preliminary AEO2018 real GDP growth is similar to other forecasts/projections

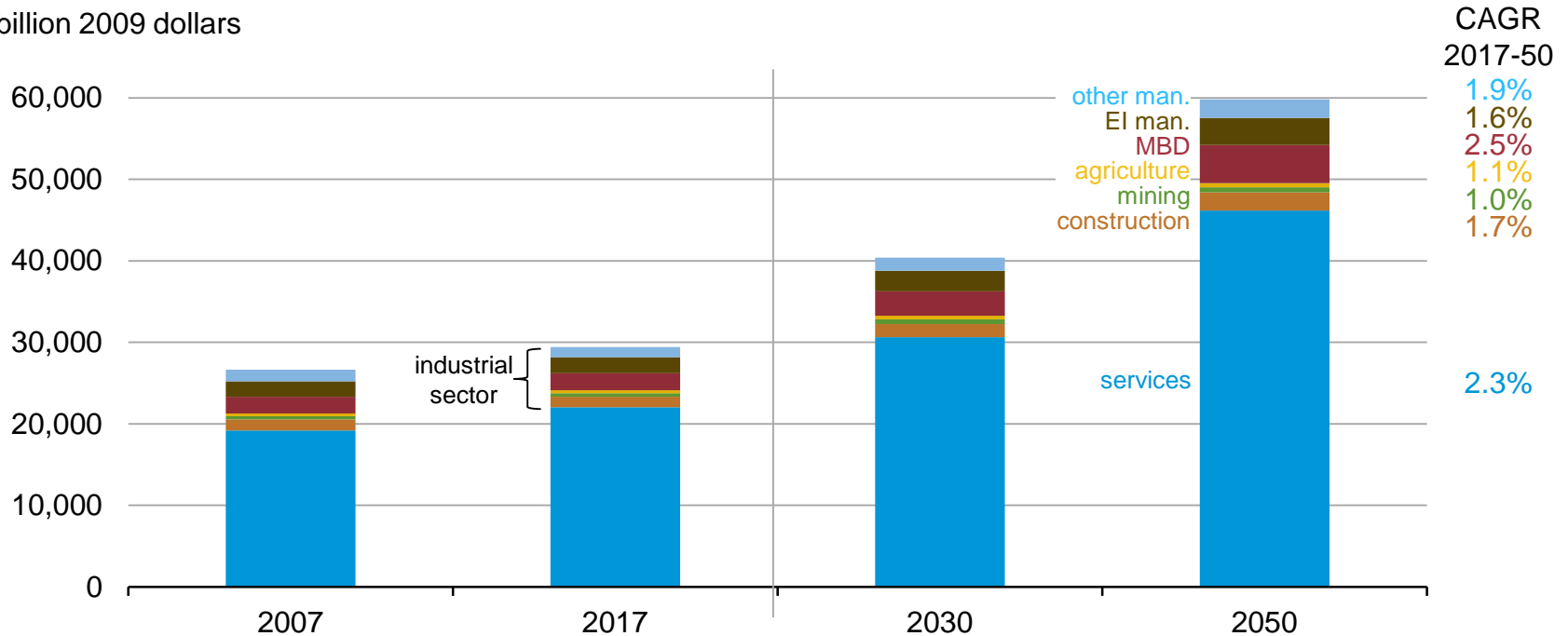
annual average growth in real GDP



Sources: as listed

Services are the largest sector, metal-based durables grow the fastest

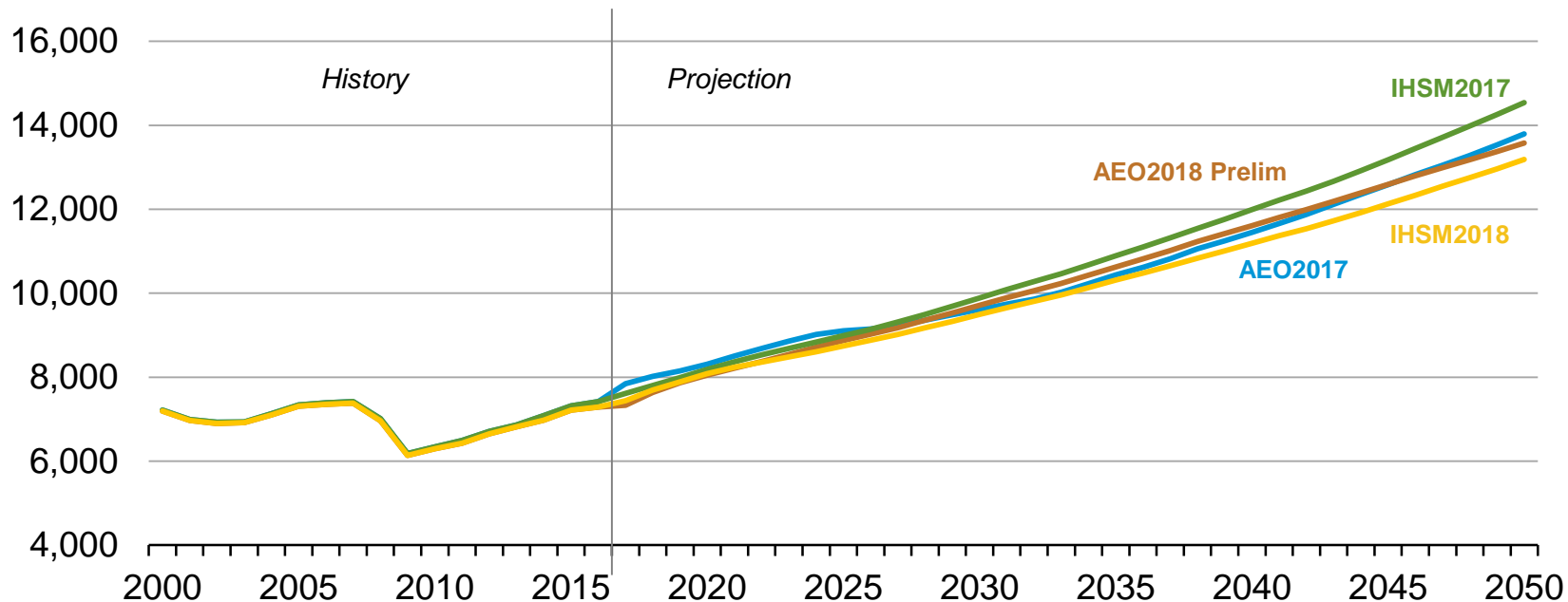
billion 2009 dollars



Source: AEO2018 Preliminary run

Very little change in overall industrial sector output despite revised baseline, no price or individual industry updates yet

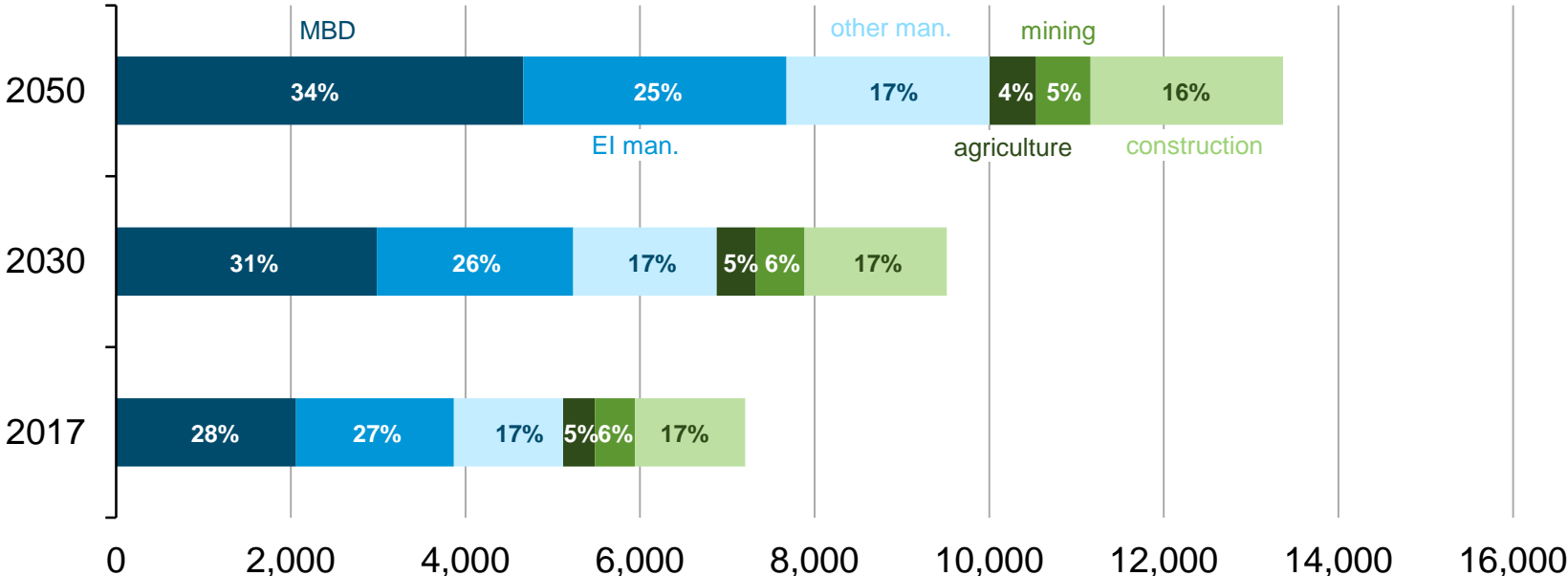
billion 2009 dollar



Source: IHS Markit, AEO2017, AEO2018 Preliminary run; bulk chemicals includes NAICS 3251-3

Industrial sector shipments grow fastest in nonenergy-intensive manufacturing, primarily due to share loss in energy-intensives

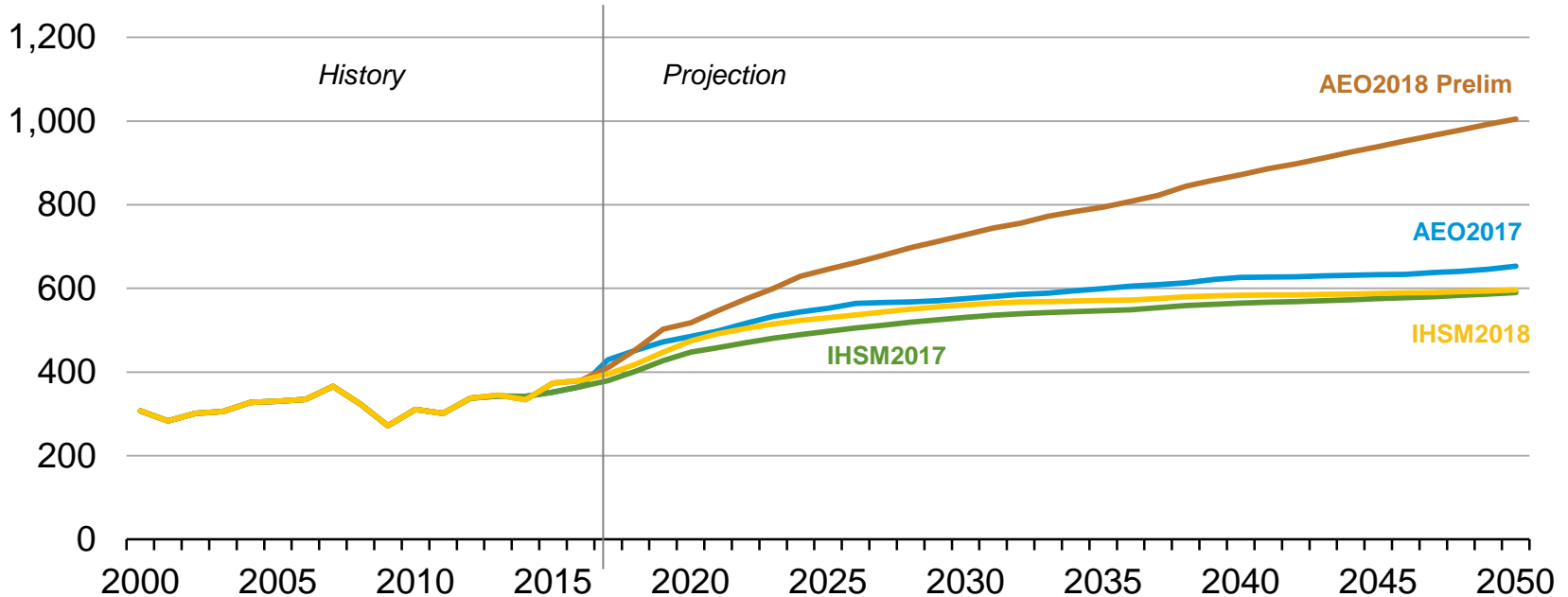
billion 2009 dollar



Source: AEO2018 Preliminary run

Bulk chemicals output not yet estimated on new energy prices or other updates, major changes expected

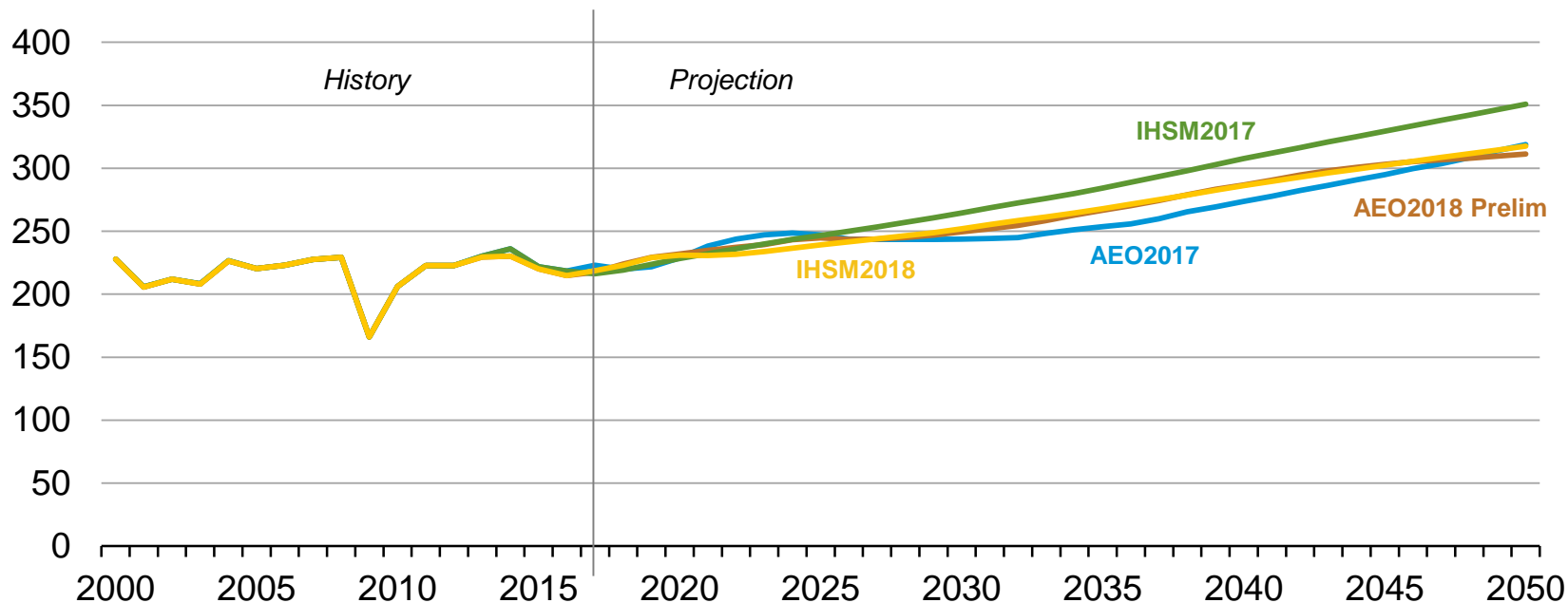
billion 2009 dollar



Source: IHS Markit, AEO2017, AEO2018 Preliminary run; bulk chemicals includes NAICS 3251-3

Primary metals output also not estimated with updated prices, some revision possible

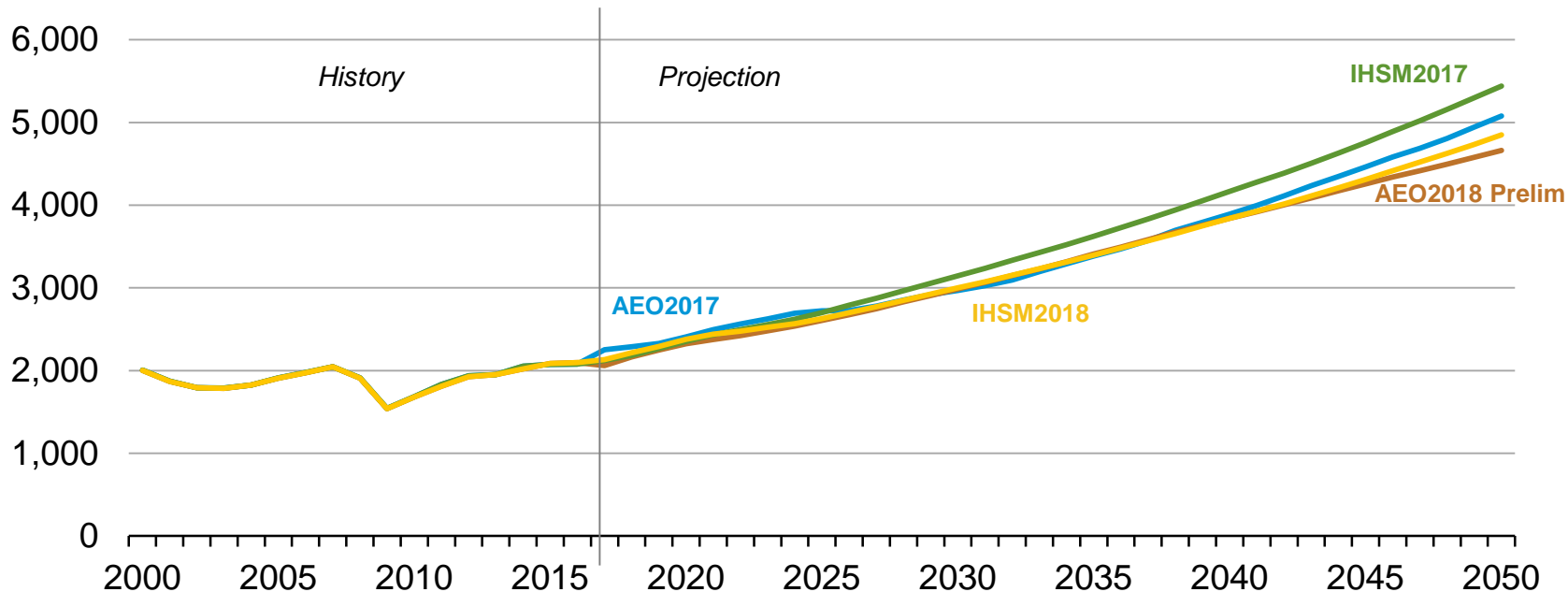
billion 2009 dollar



Source: IHS Markit, AEO2017, AEO2018 Preliminary run; primary metals includes all NAICS 331

Metal-based durables output relatively insensitive to price so less change expected

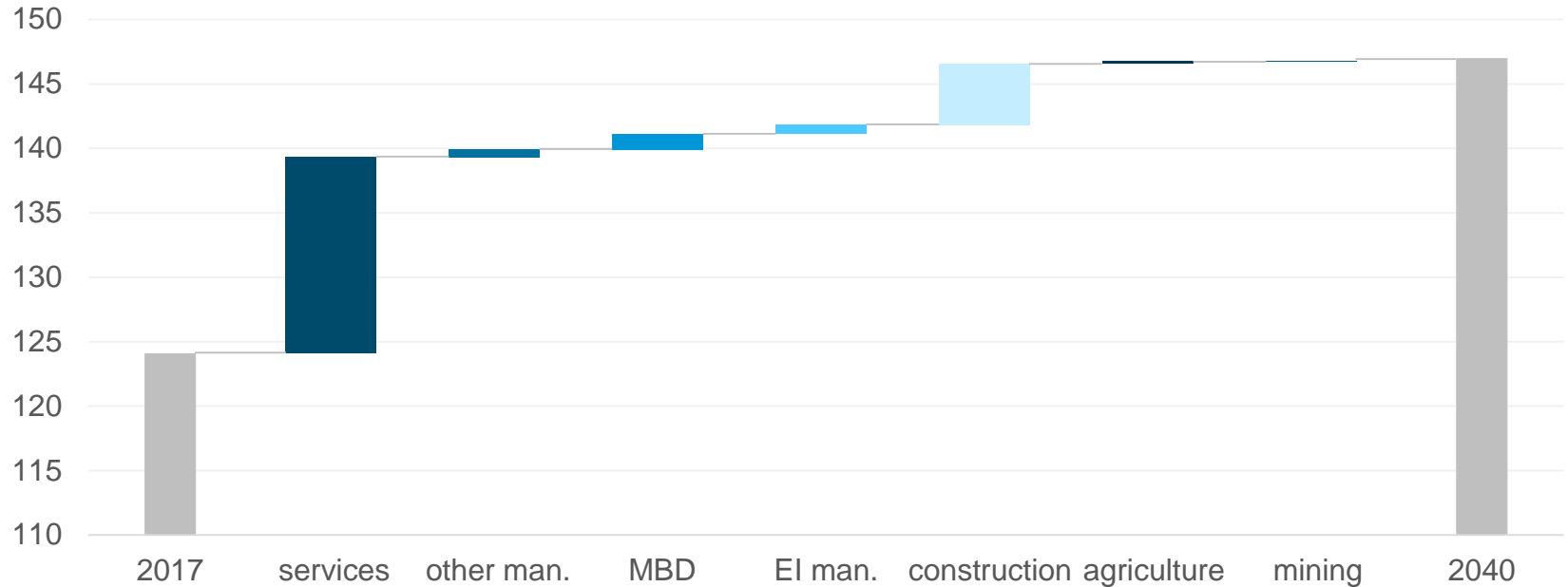
billion 2009 dollar



Source: IHS Markit, AEO2017, AEO2018 Preliminary run; metal-based durables includes NAICS 332-6

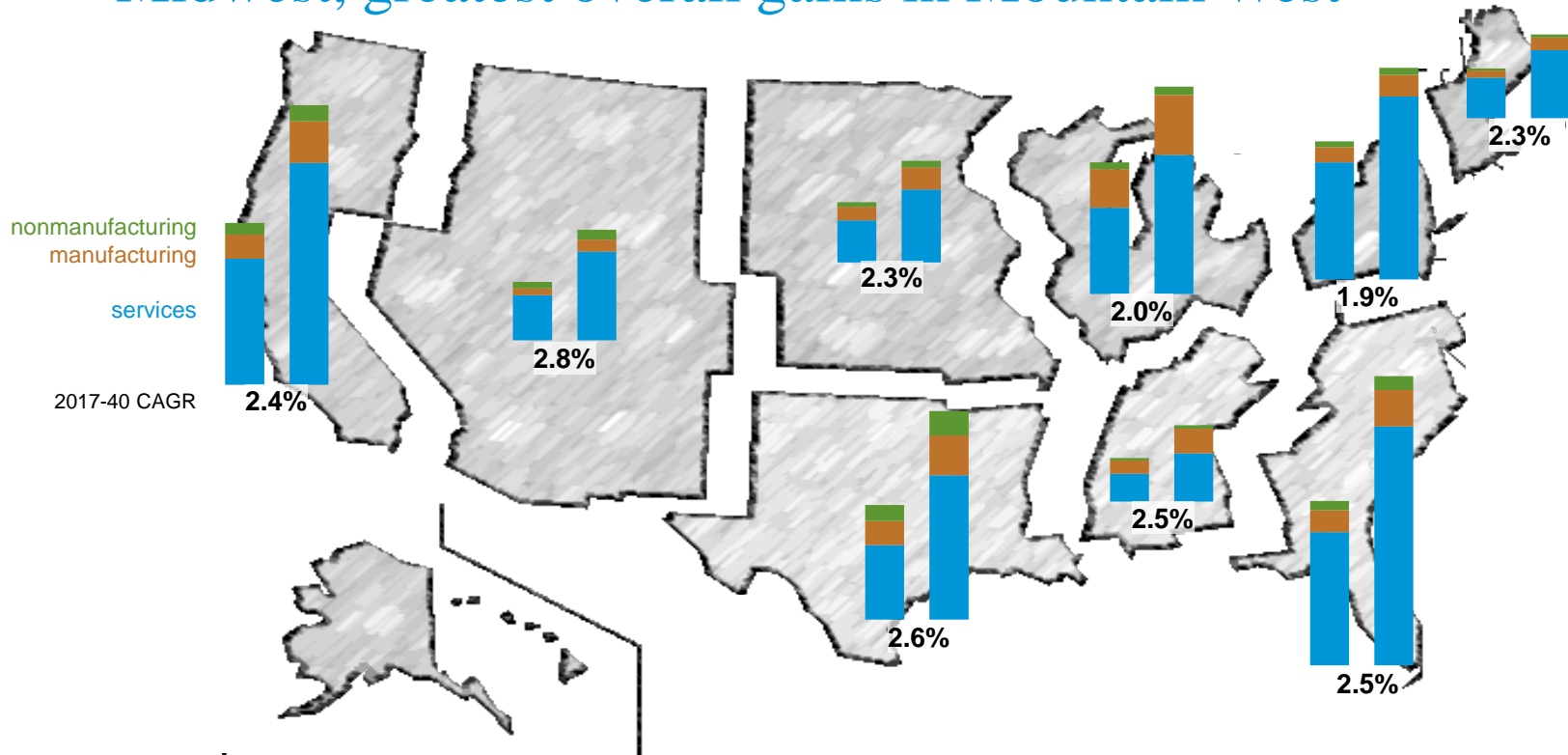
Employment increases most in services and construction

million jobs



Source: AEO Preliminary run; MBD = metal-based durables, EI = energy-intensive, man. = manufacturing

Regional results reveal manufacturing remains largest in Midwest, greatest overall gains in Mountain West



Source: AEO2018 Preliminary run

Thank you

Annual Energy Outlook | www.eia.gov/forecasts/aeo

Short-Term Energy Outlook | www.eia.gov/forecasts/steo

International Energy Outlook | www.eia.gov/forecasts/ieo

Today In Energy | www.eia.gov/todayinenergy

Monthly Energy Review | www.eia.gov/totalenergy/data/monthly

State Energy Portal | www.eia.gov/state