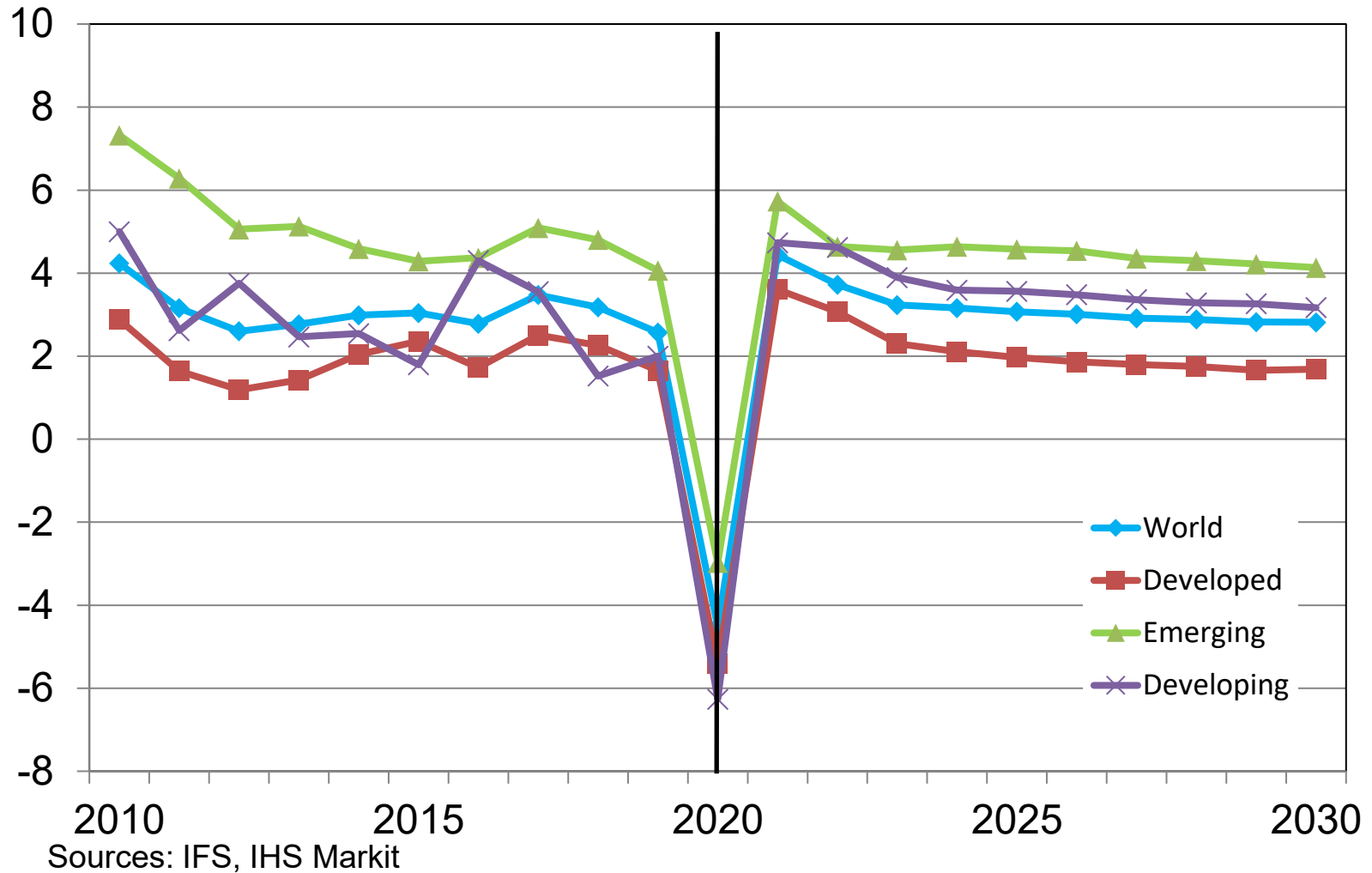


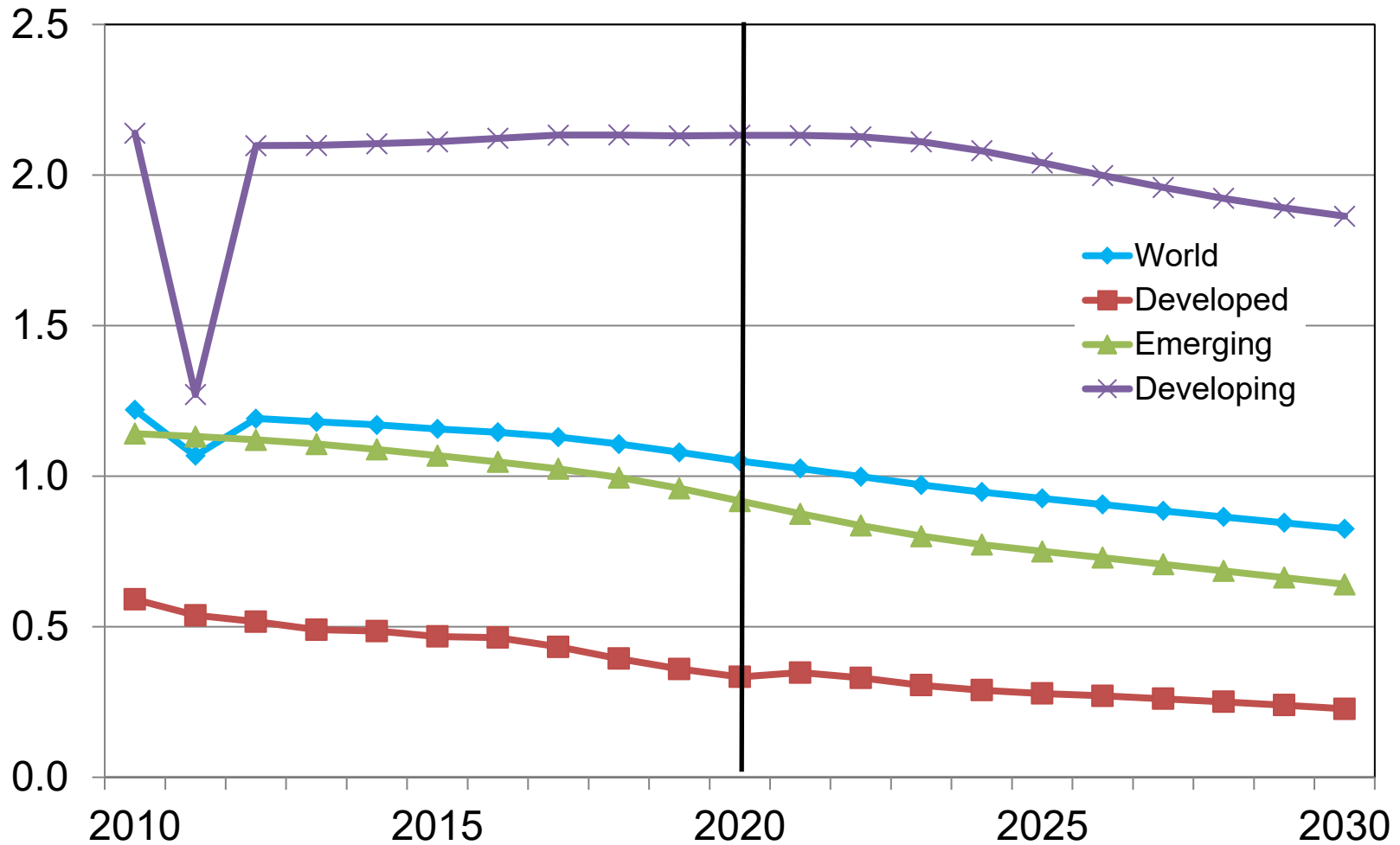
Assumed Economic Recovery from COVID-19 in Early 2021

Real GDP, % change



Population Growth Slowing in All Regions

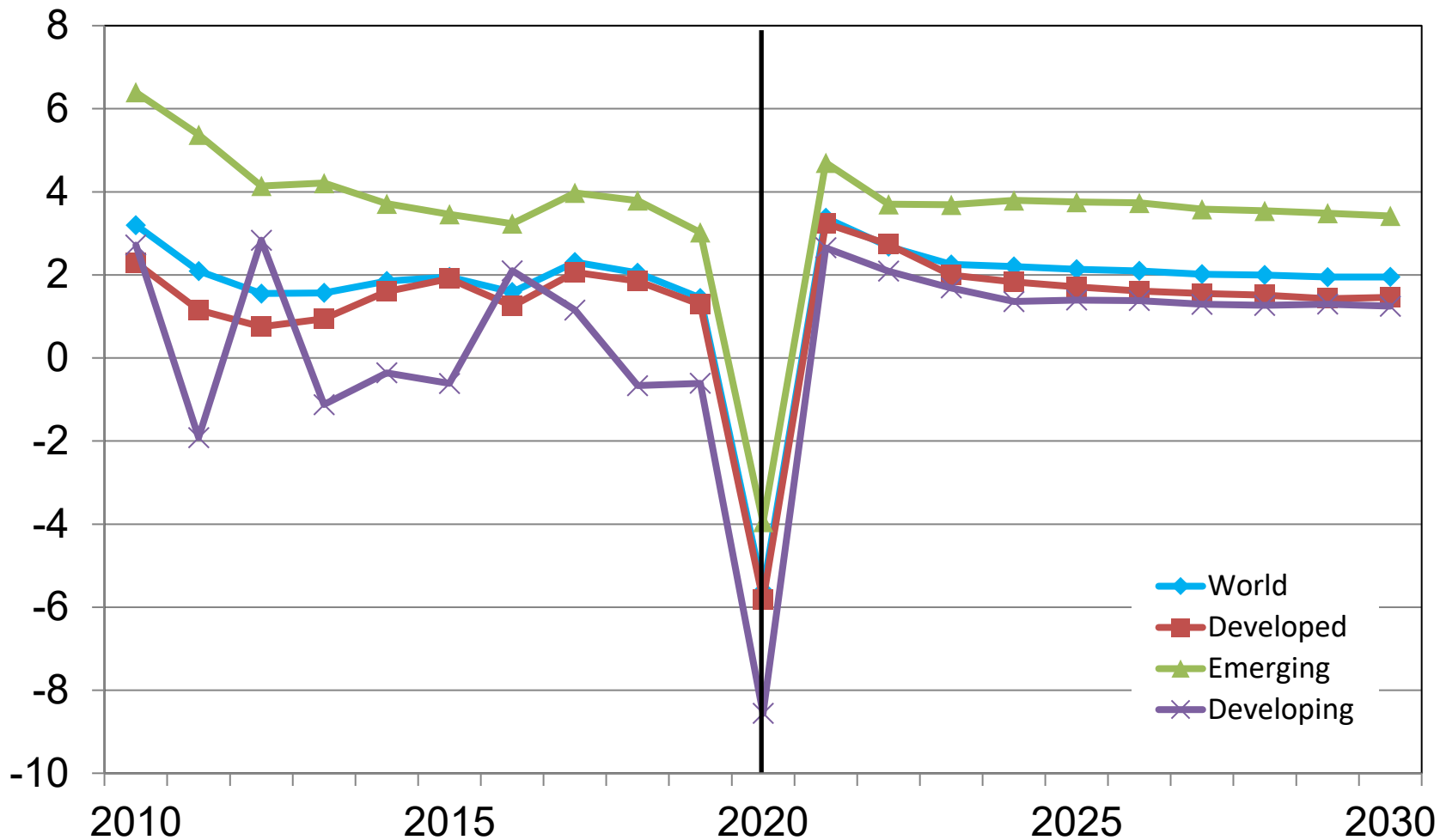
Population, % change



Sources: IFS, IHS Markit

Per Person, Developing Regions Continue to Lag Other Economies Post-COVID-19

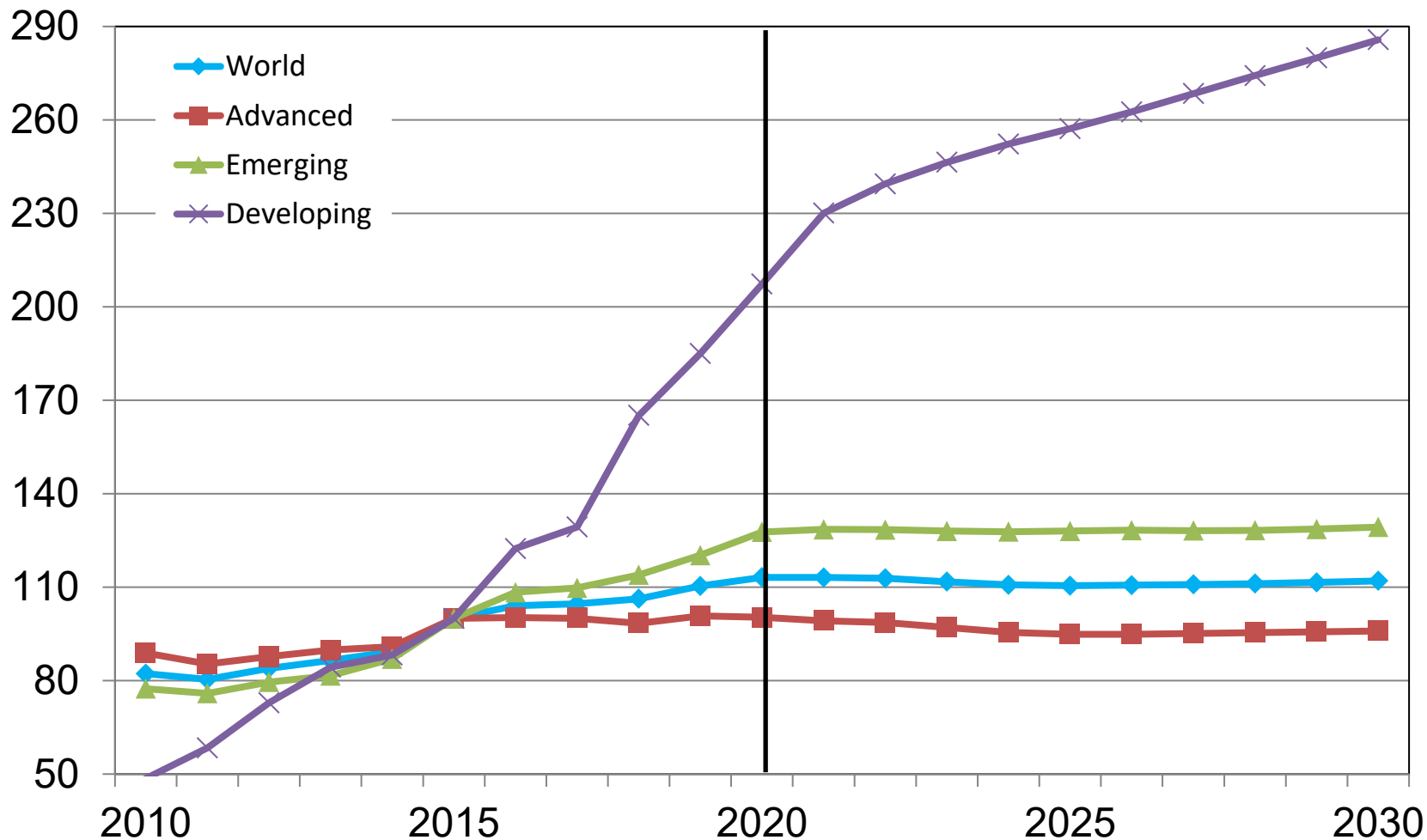
Real per capita GDP, % change



Sources: IFS, IHS Markit

Depreciation Climbs for Developing Nominal Currencies

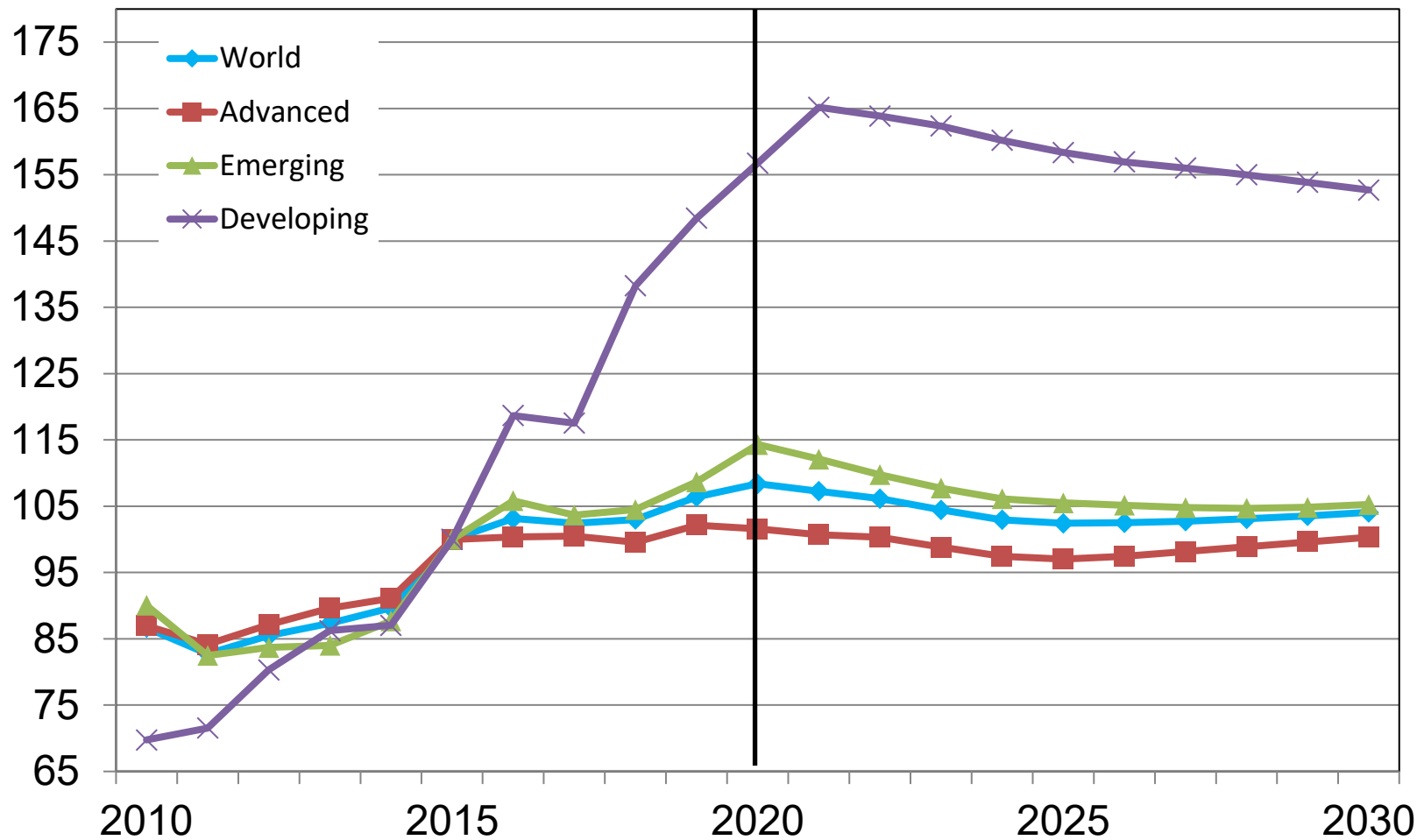
Exchange rate index, 2015=100



Sources: IFS, IHS Markit

But, Developing Countries Improve Purchasing Power

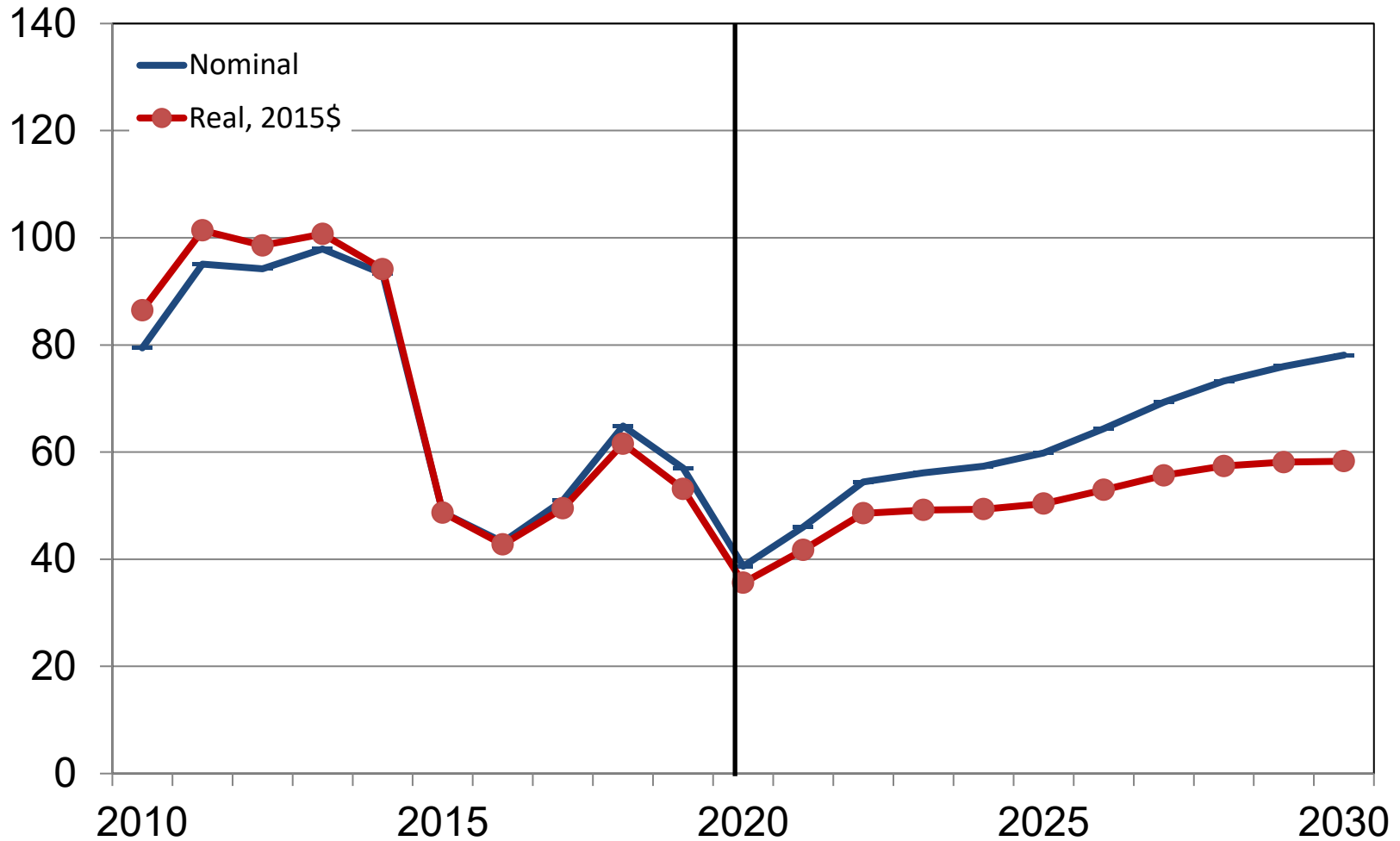
Real exchange rate index, 2015=100



Sources: IFS, IHS Markit

Adequate Supplies at Modest Prices After 2021?

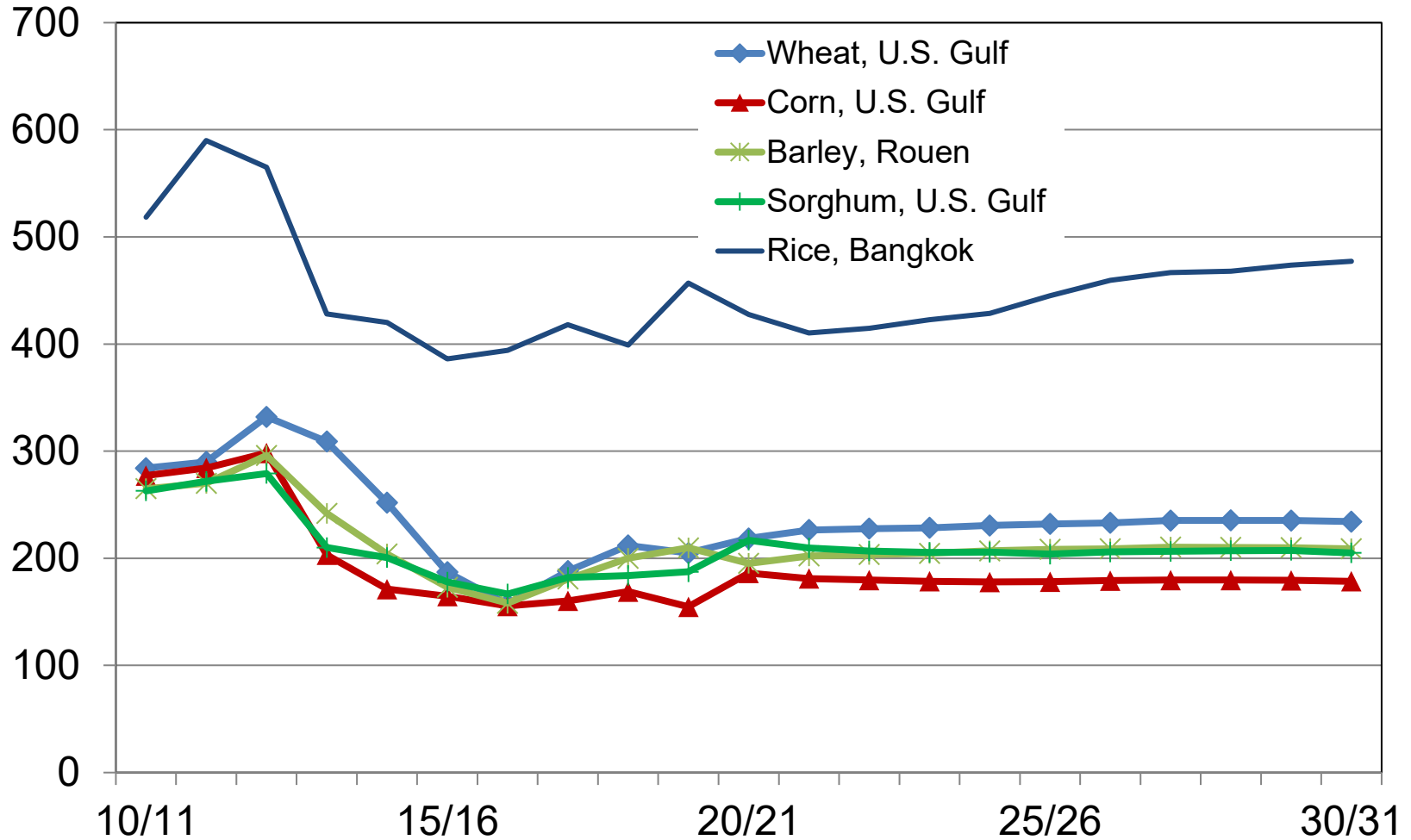
WTI price, \$/bbl



Sources: EIA, IHS Markit

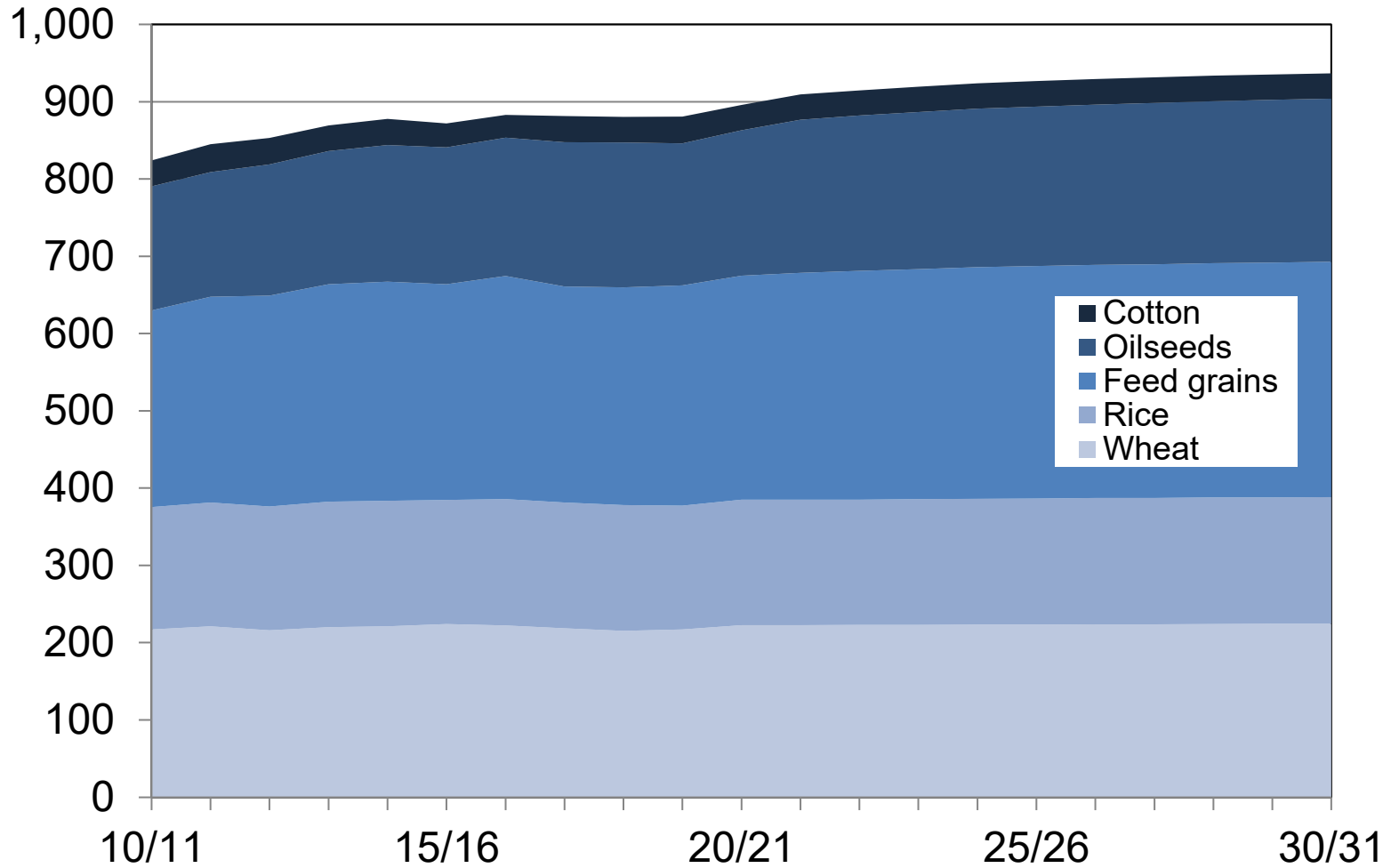
Ample Supplies Mean Stable Prices

\$/metric ton



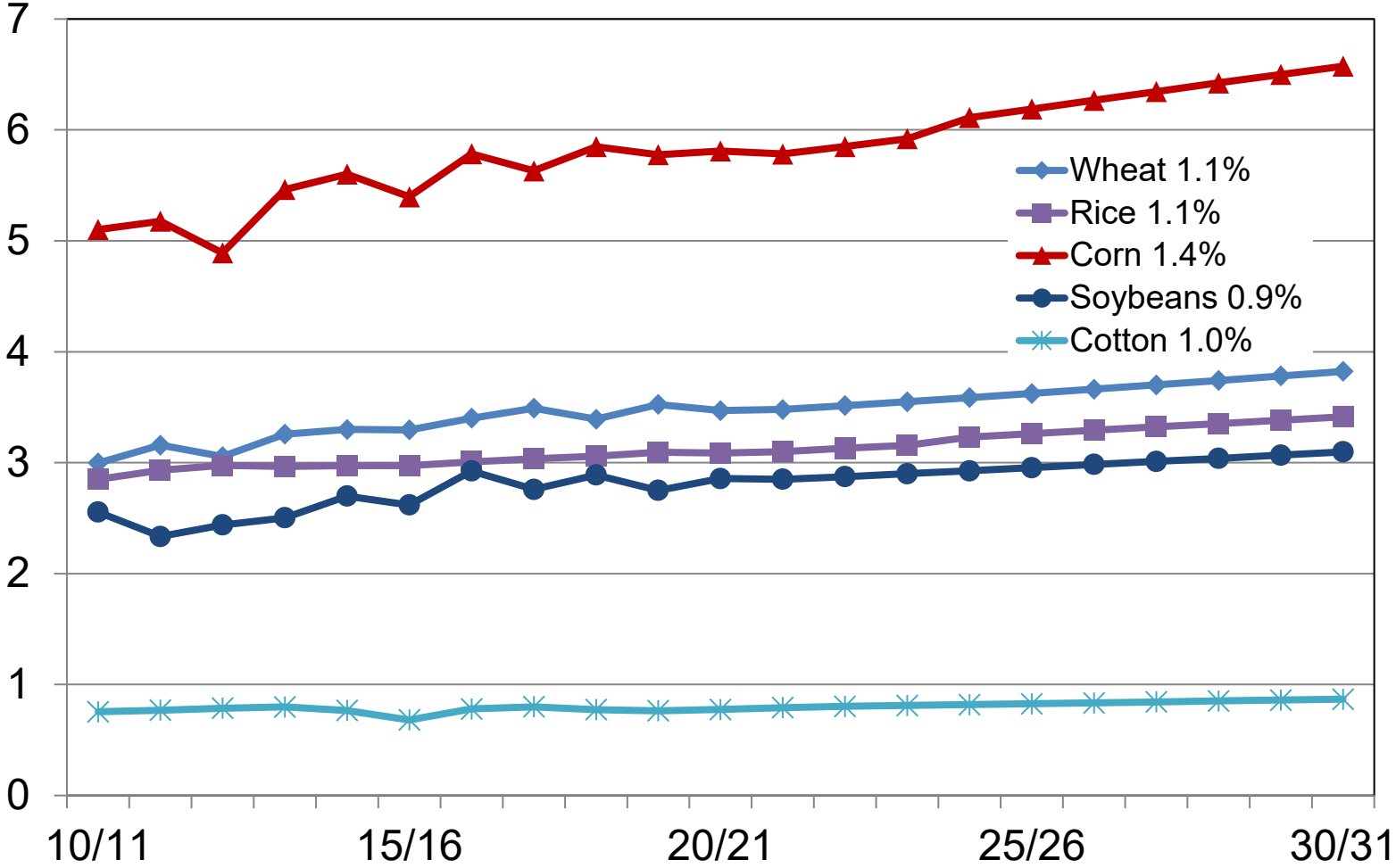
Increasing Area Required Only for Feed Crops

World crop area, million hectares



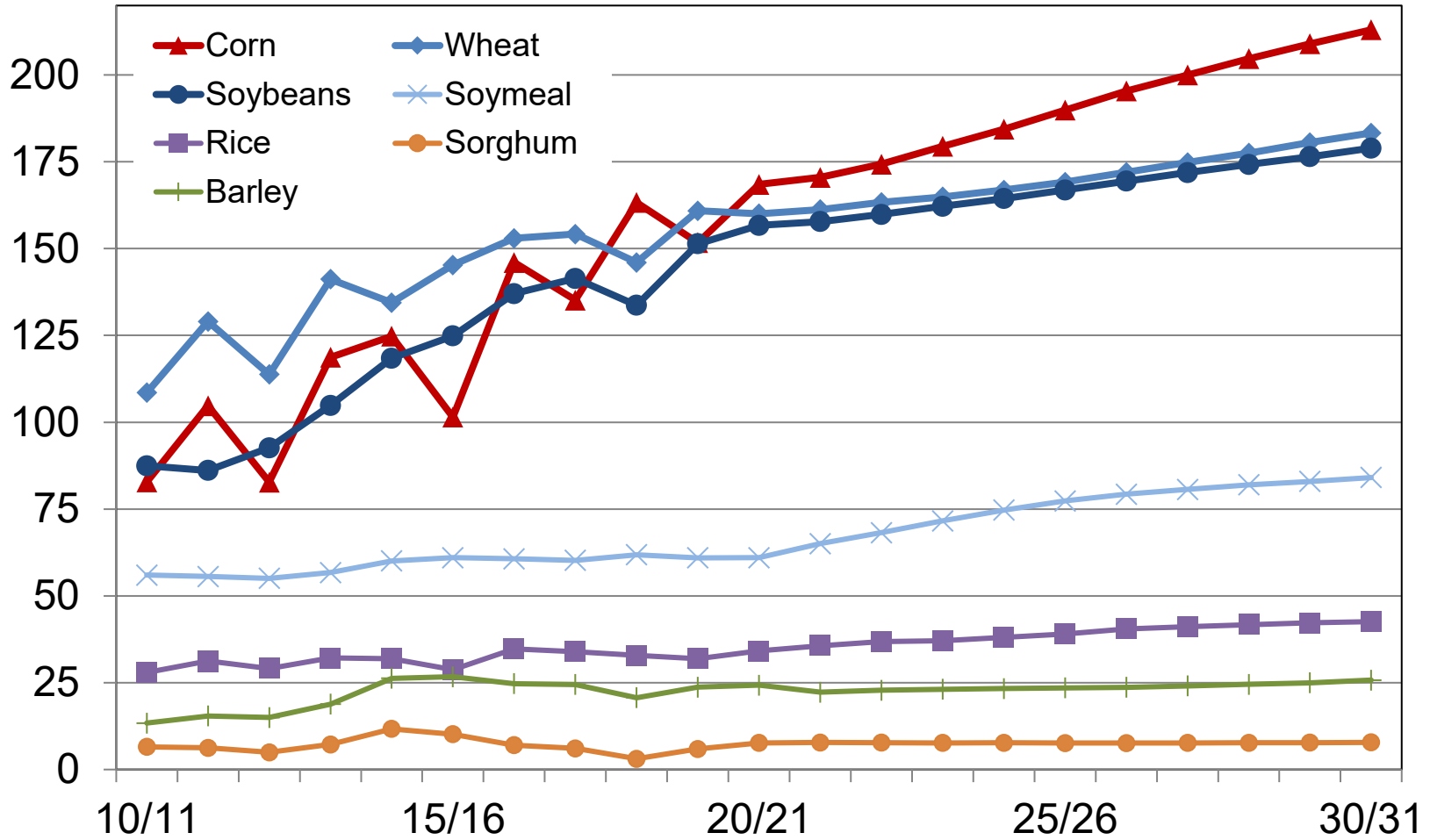
Yield Gains Push Supply Growth

Global average yield, metric tons/hectare



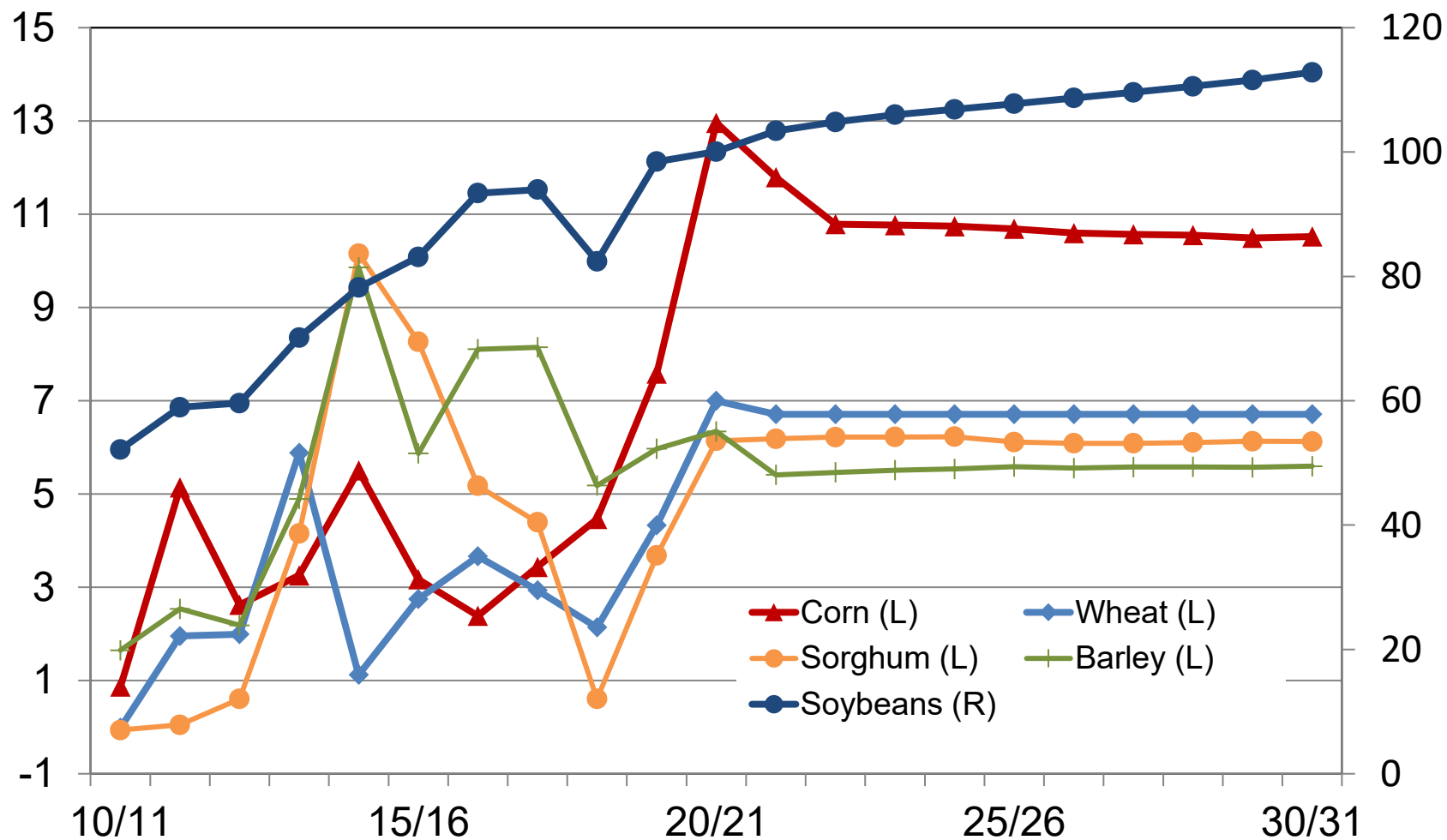
Income and Population Growth Drive Trade

Global Net exports by exporting countries, mmt



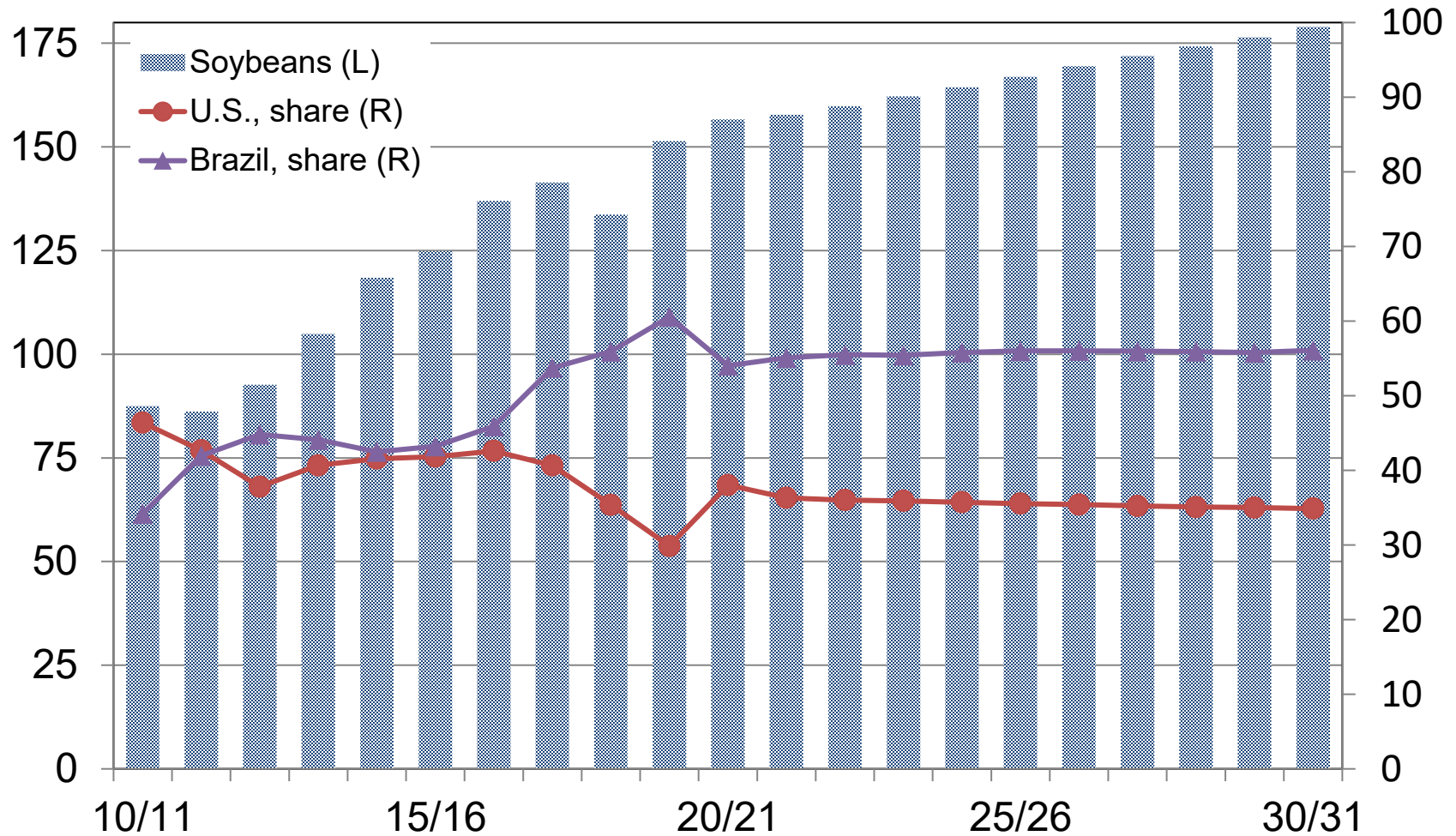
China Relies on Global Trade to Meet Protein Needs

China net trade, mmt



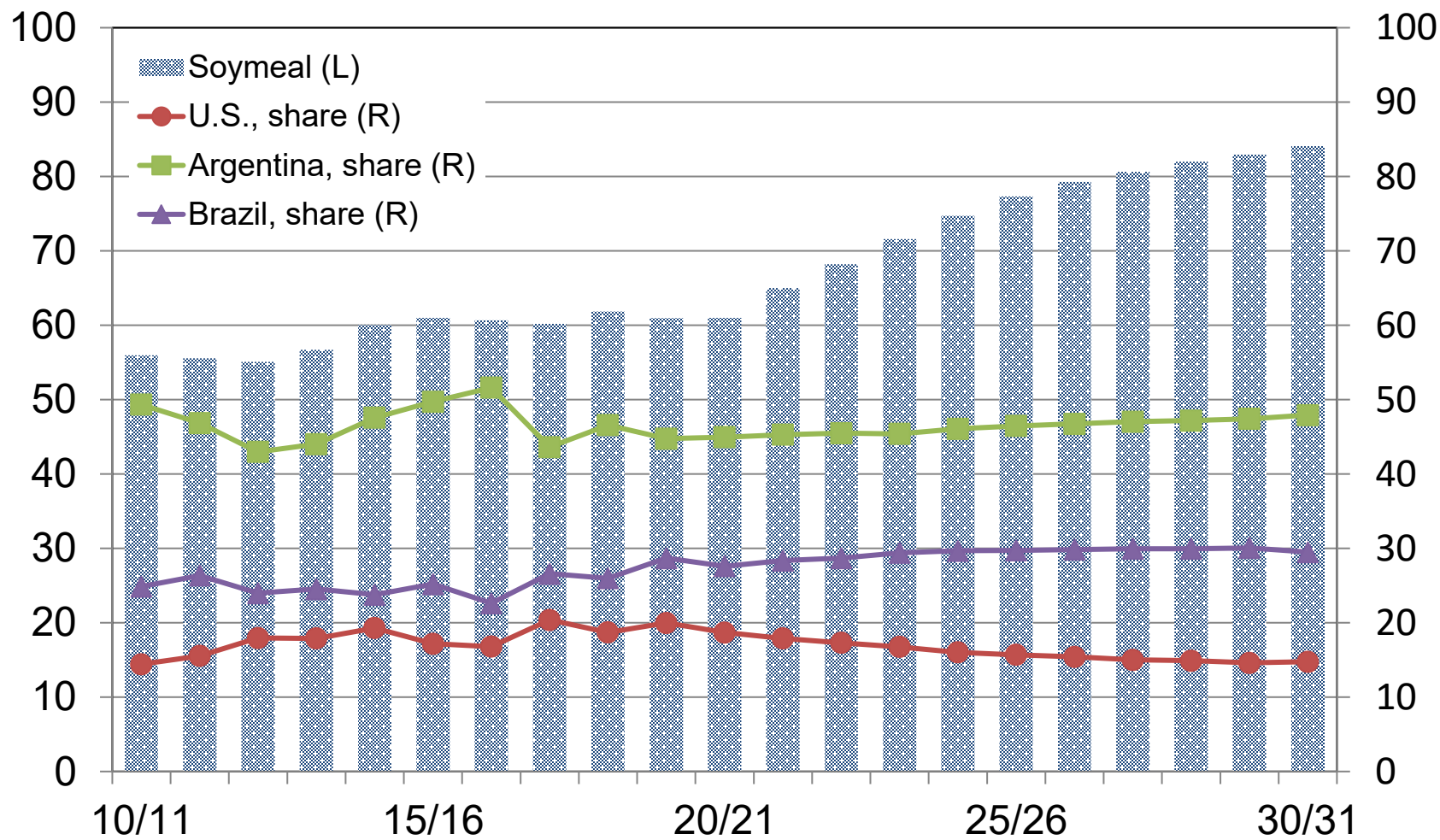
As Global Soybean Exports Climb, U.S. Share Steady

Net exports by exporting countries, mmt



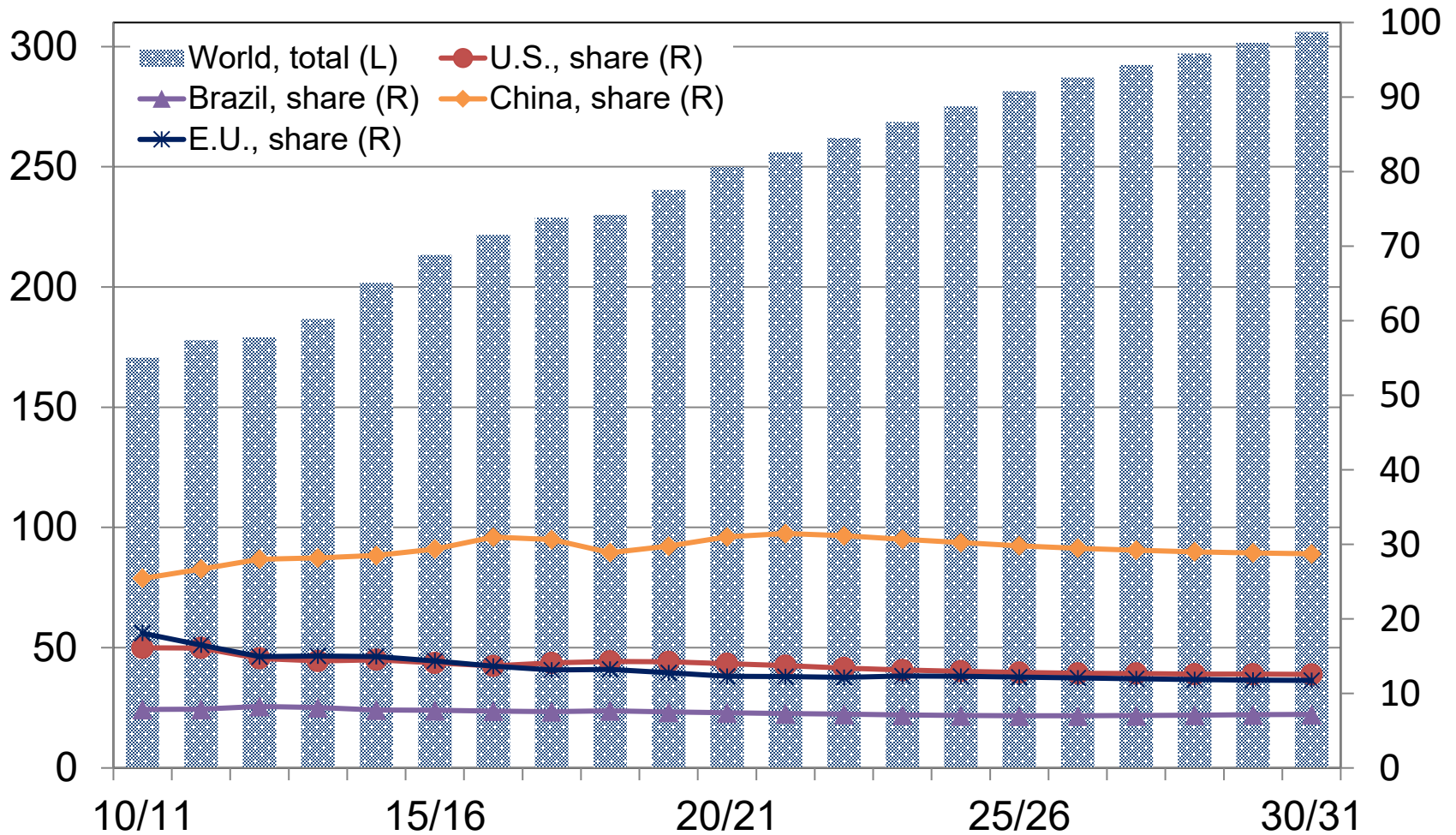
As Global Soymeal Exports Climb, U.S. Loses Share

Net exports by exporting countries, mmt



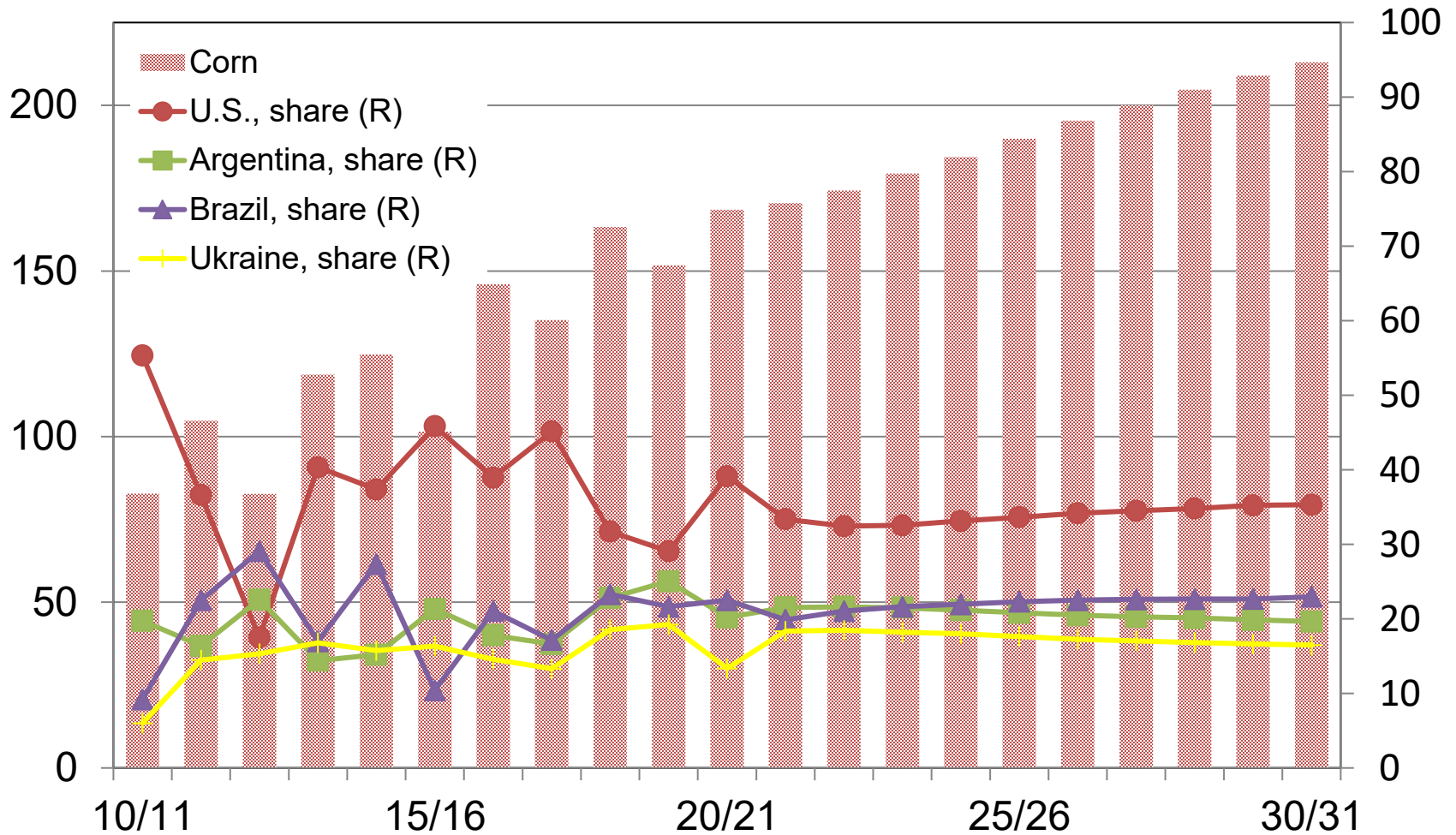
Livestock Drives Protein Demand

Soymeal Domestic Use, mmt



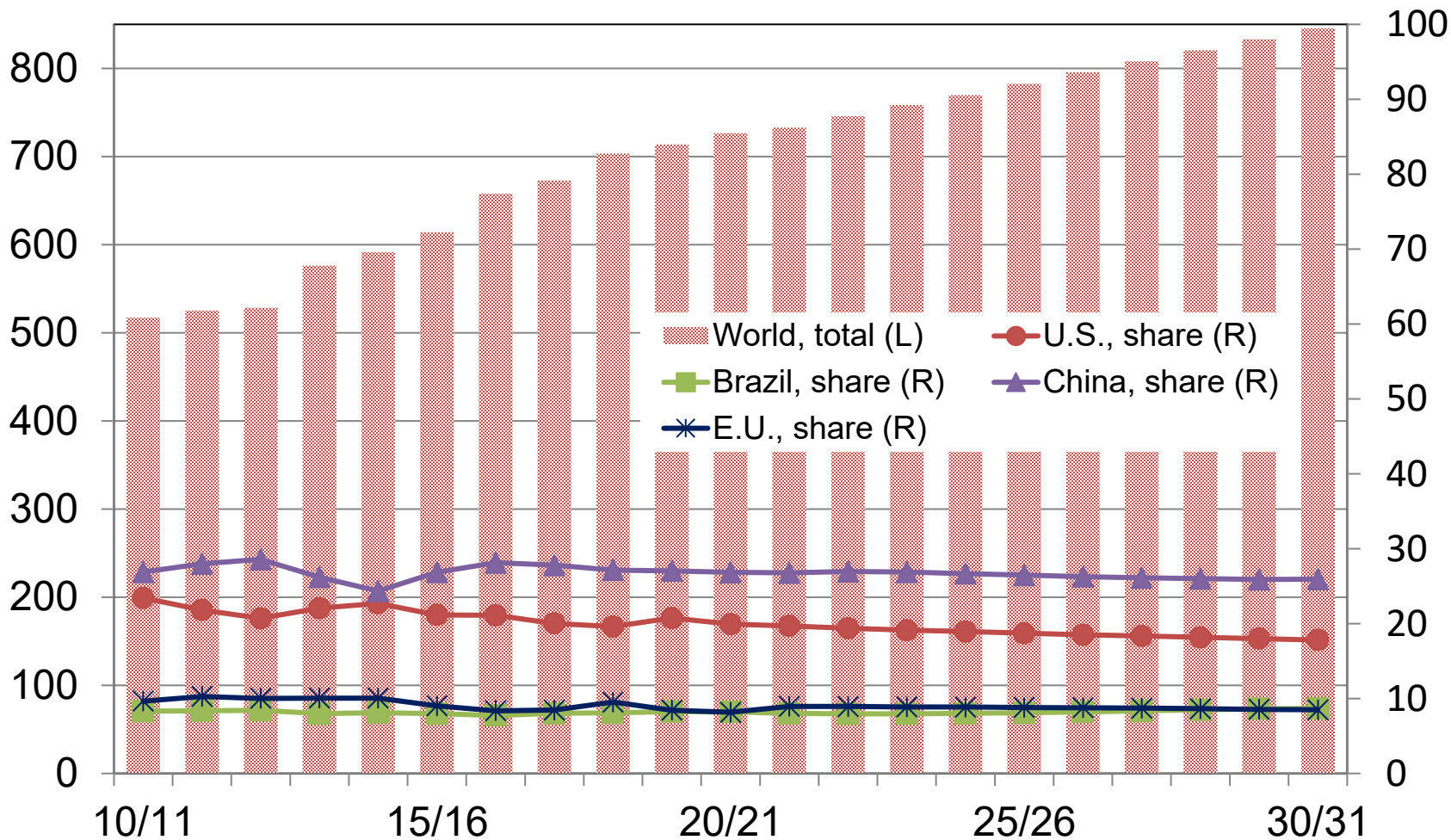
U.S. Shares Gain Slightly Against Other Major Exporters

Net exports by exporting countries, mmt



Feed Shares Remain Flat as Corn Feed Grows Globally

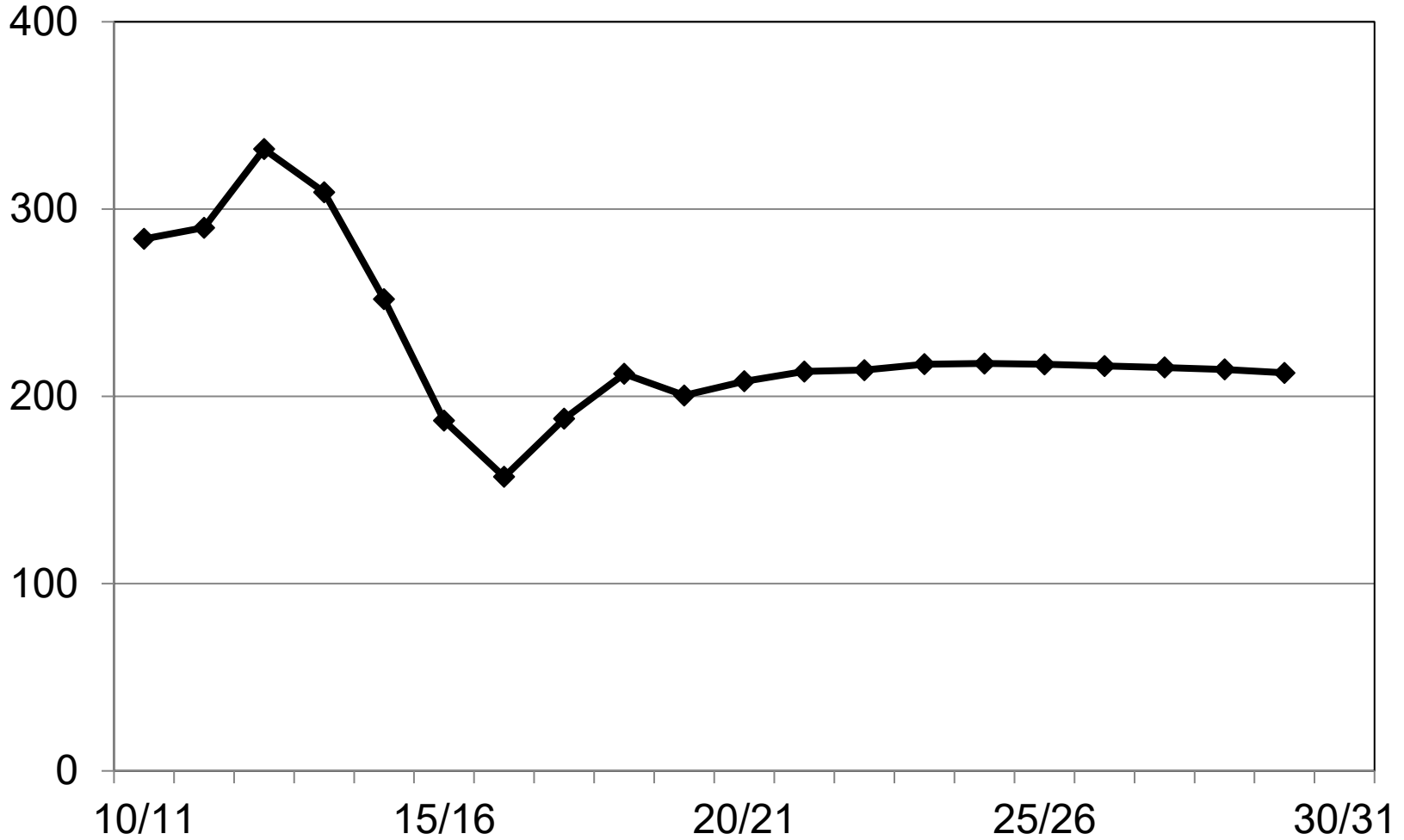
Corn Feed Use, mmt



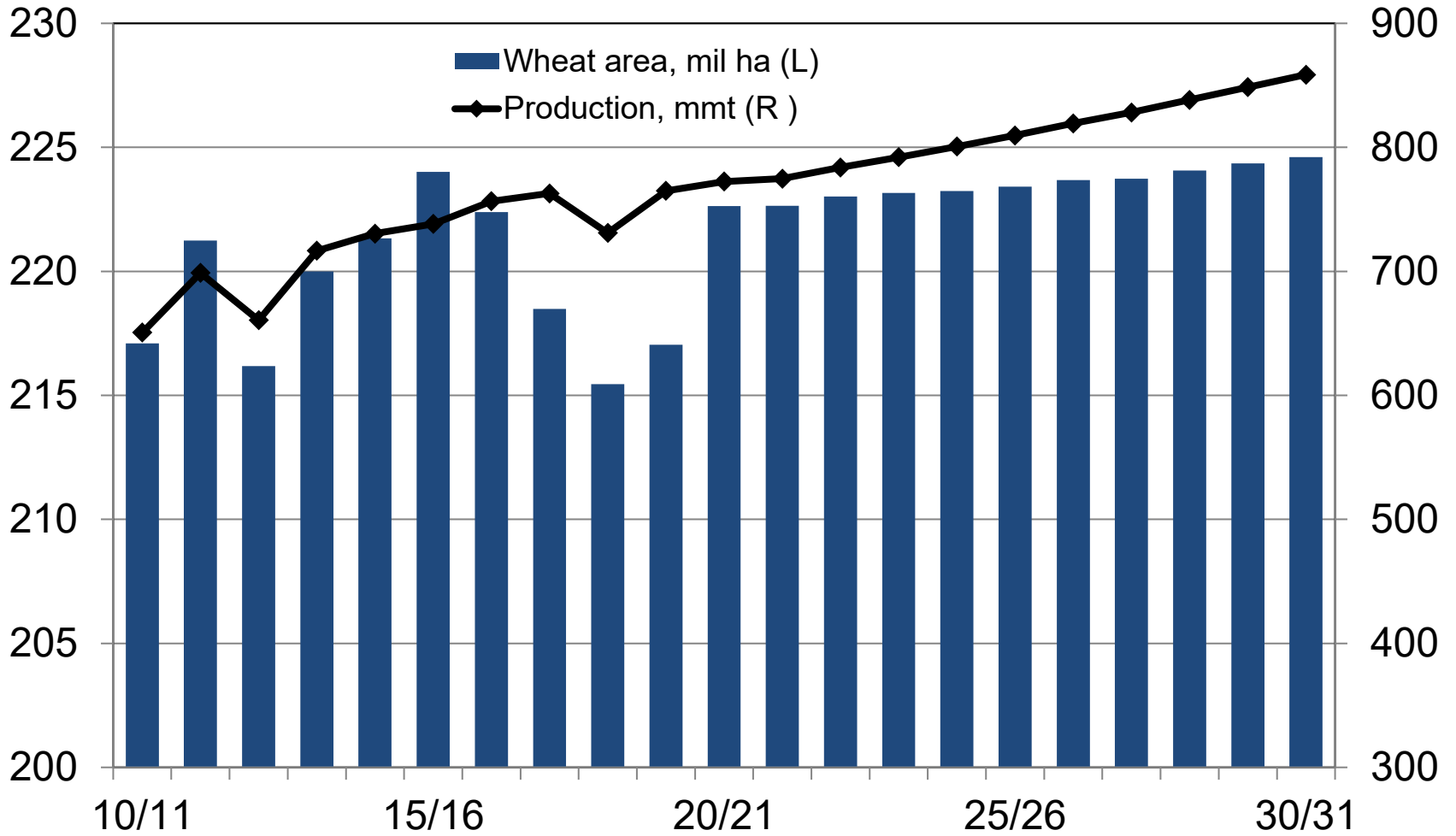
Wheat

Prices Recover from COVID by 2021 then Flatten

Wheat price, HRW, U.S. Gulf, \$/mt

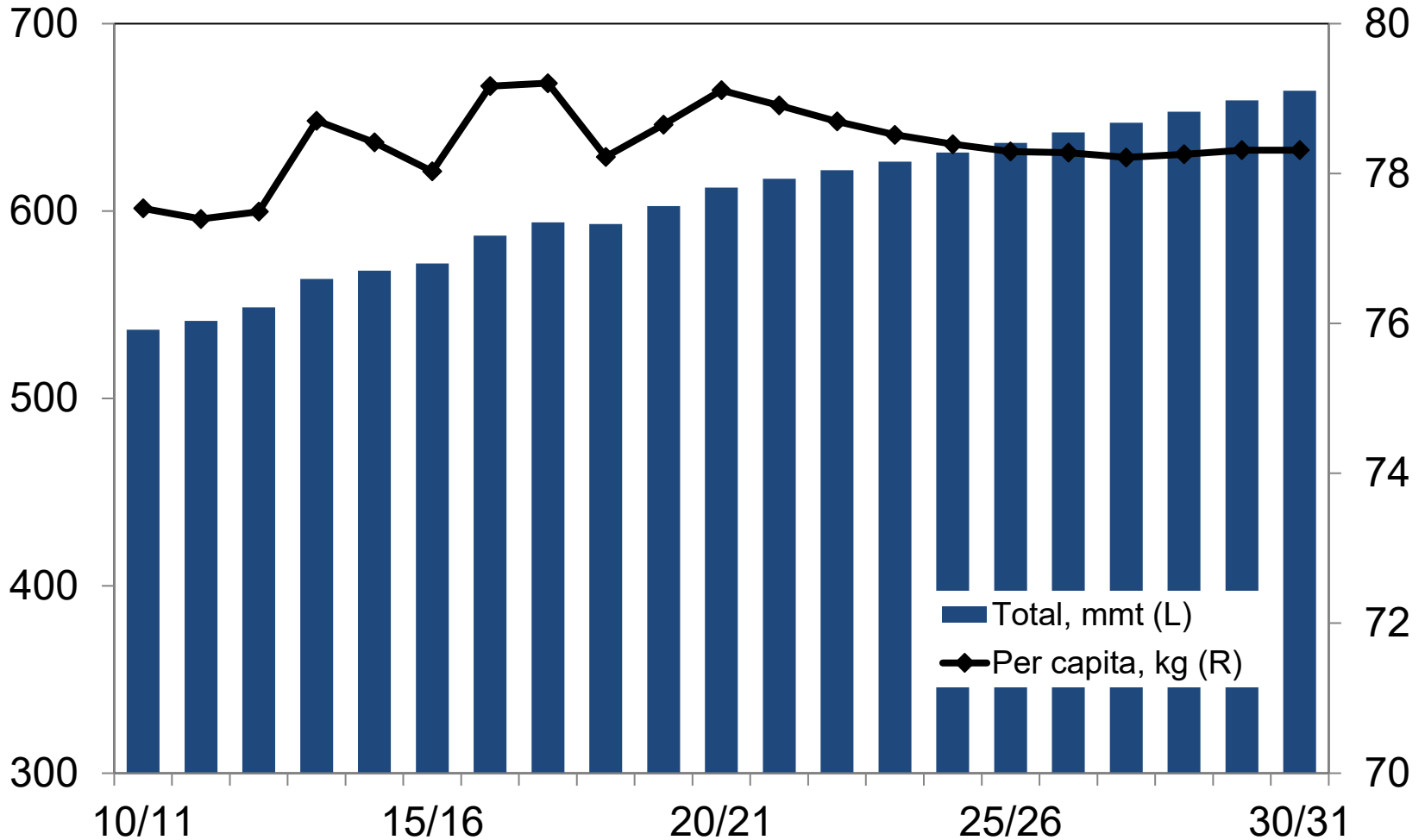


Yield Gains, More than Area, Will Boost Wheat Production



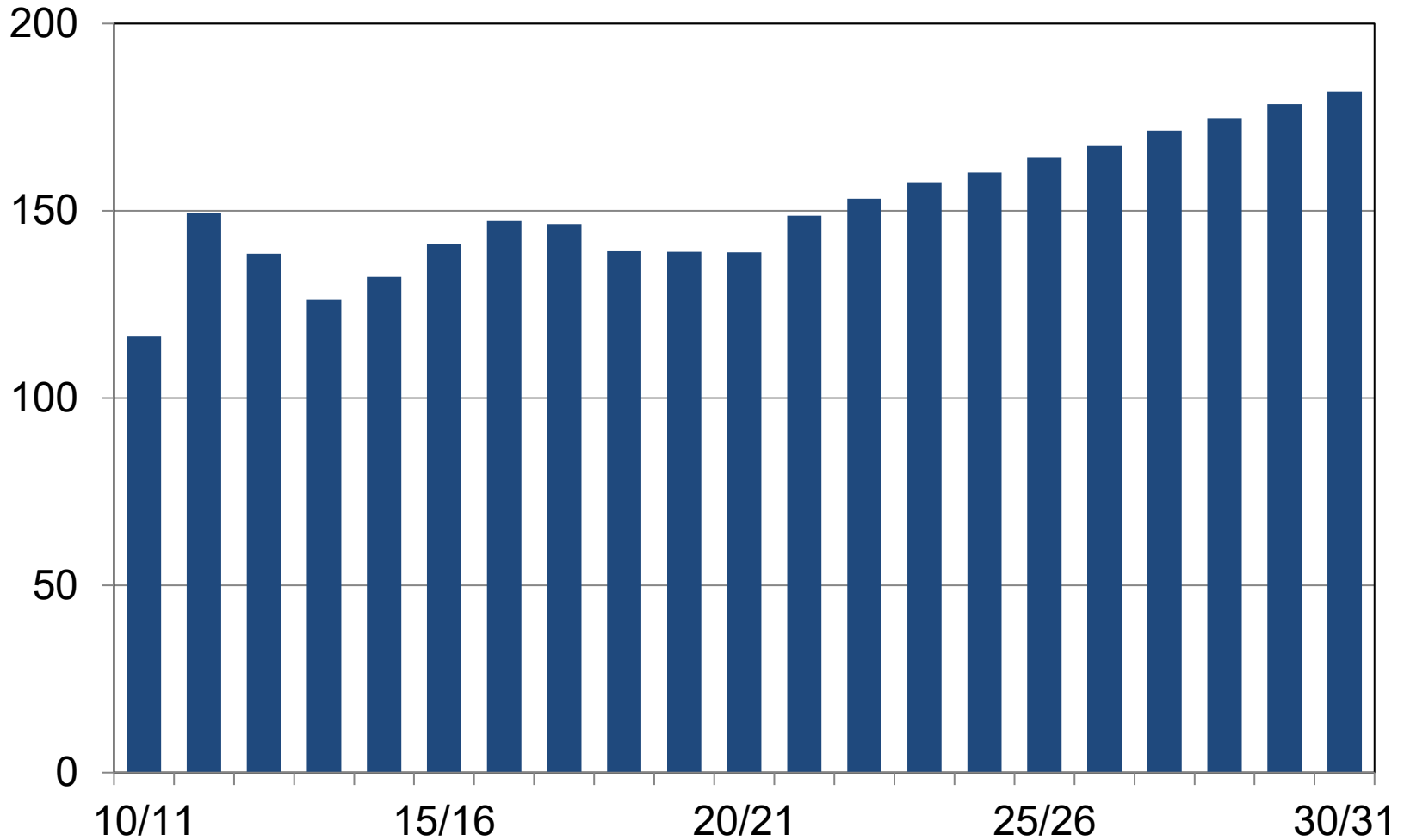
Wheat Food Demand Driven by Population Growth

Global wheat food and industrial use



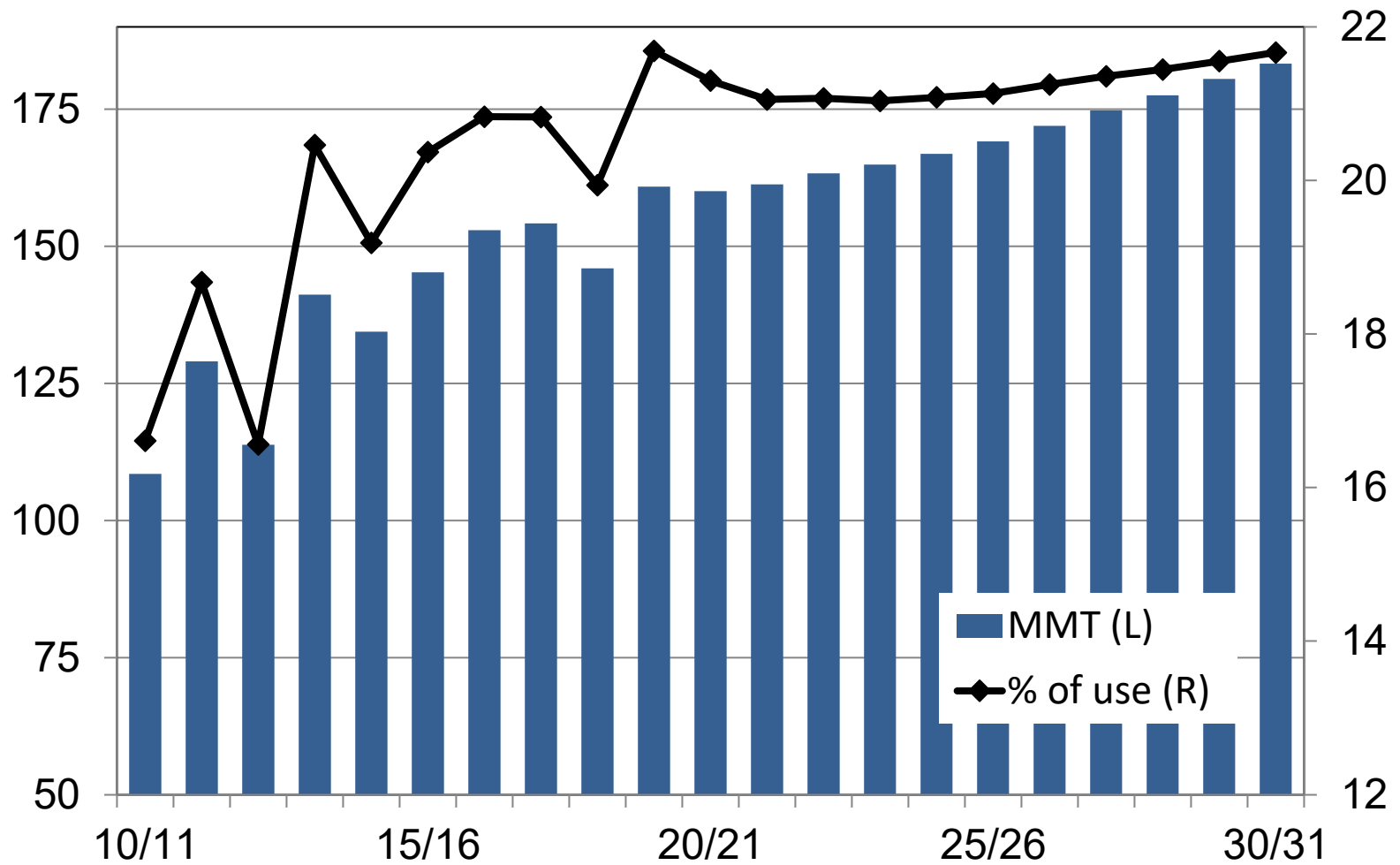
Feed Use Grows with Increasing Livestock Demand

Global wheat feed use, mmt



Trade Redistributes Global Wheat Supplies

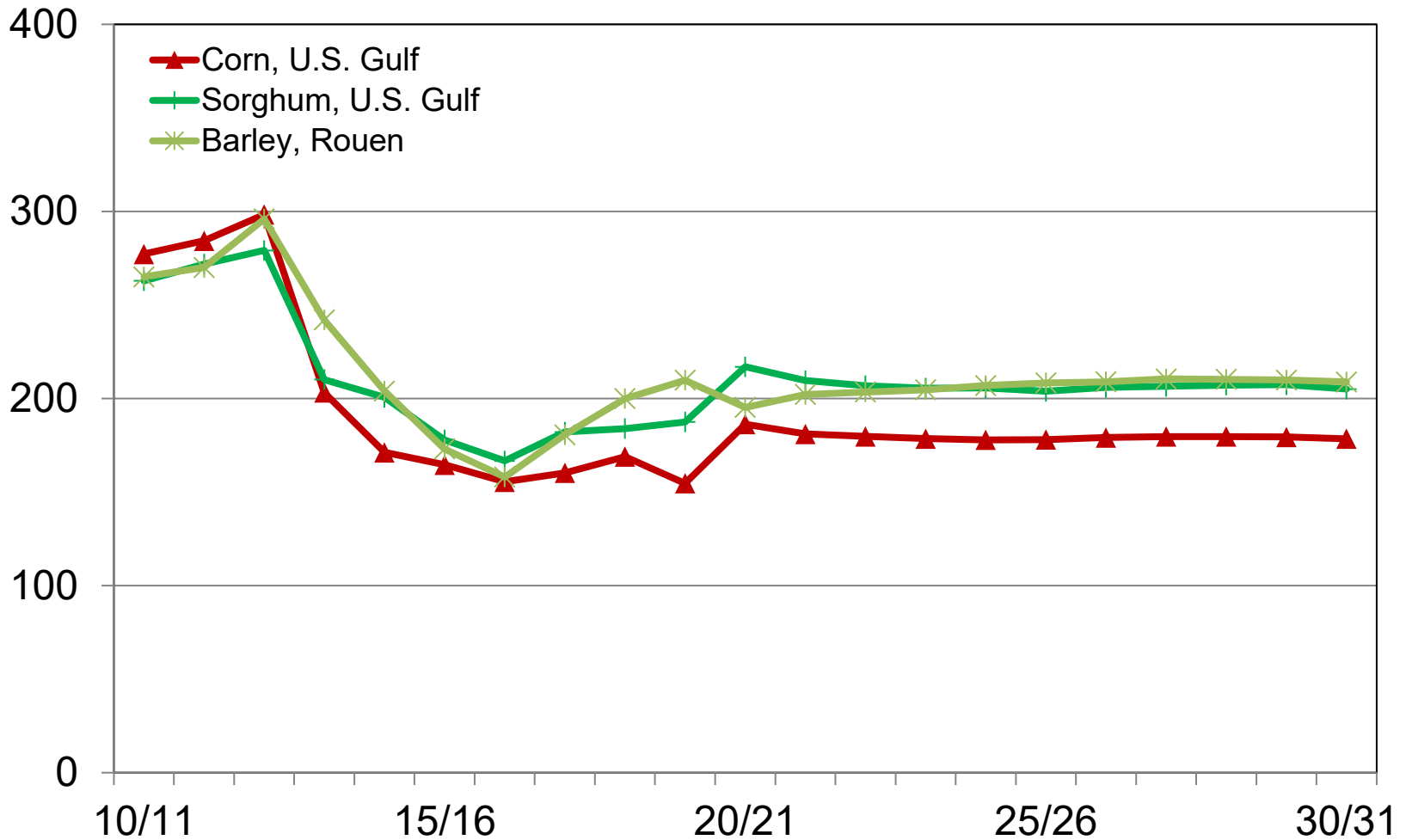
Wheat net trade



Feed Grains

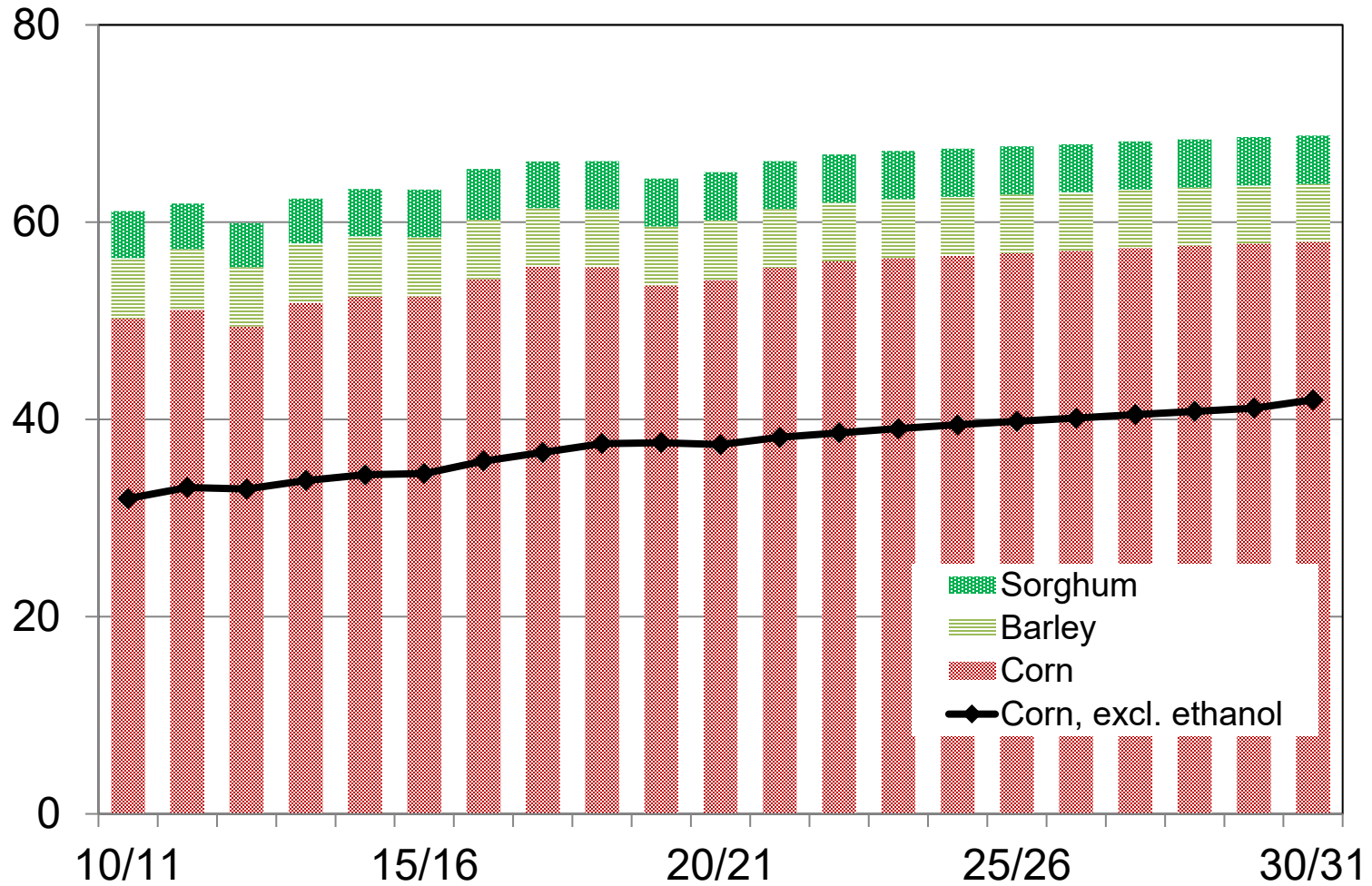
Prices Adjust to Normal Relationships, but Remain Modest

\$/metric ton

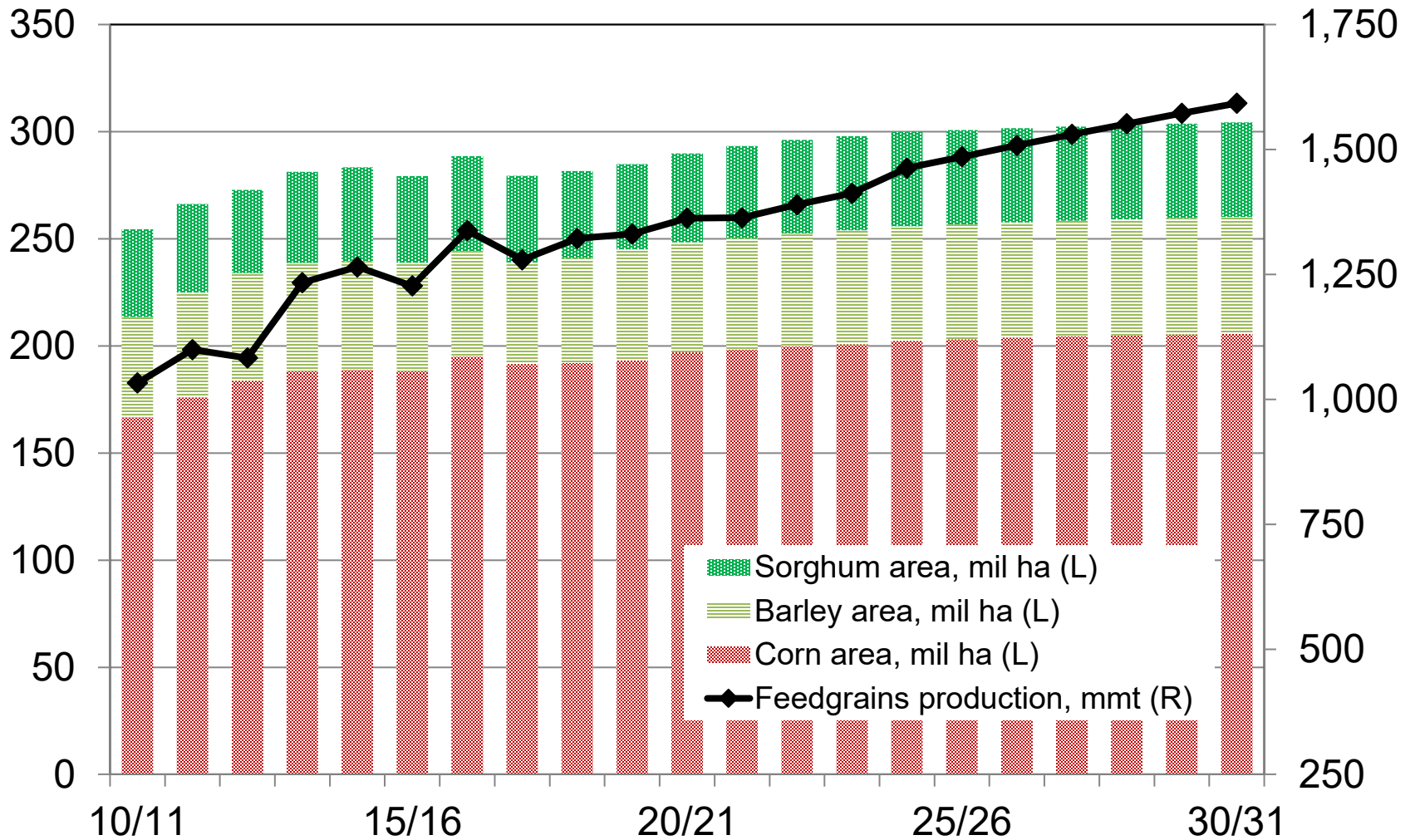


Steady Share of Grains in the Global Diet

Global food, seed & industrial use, kg/capita

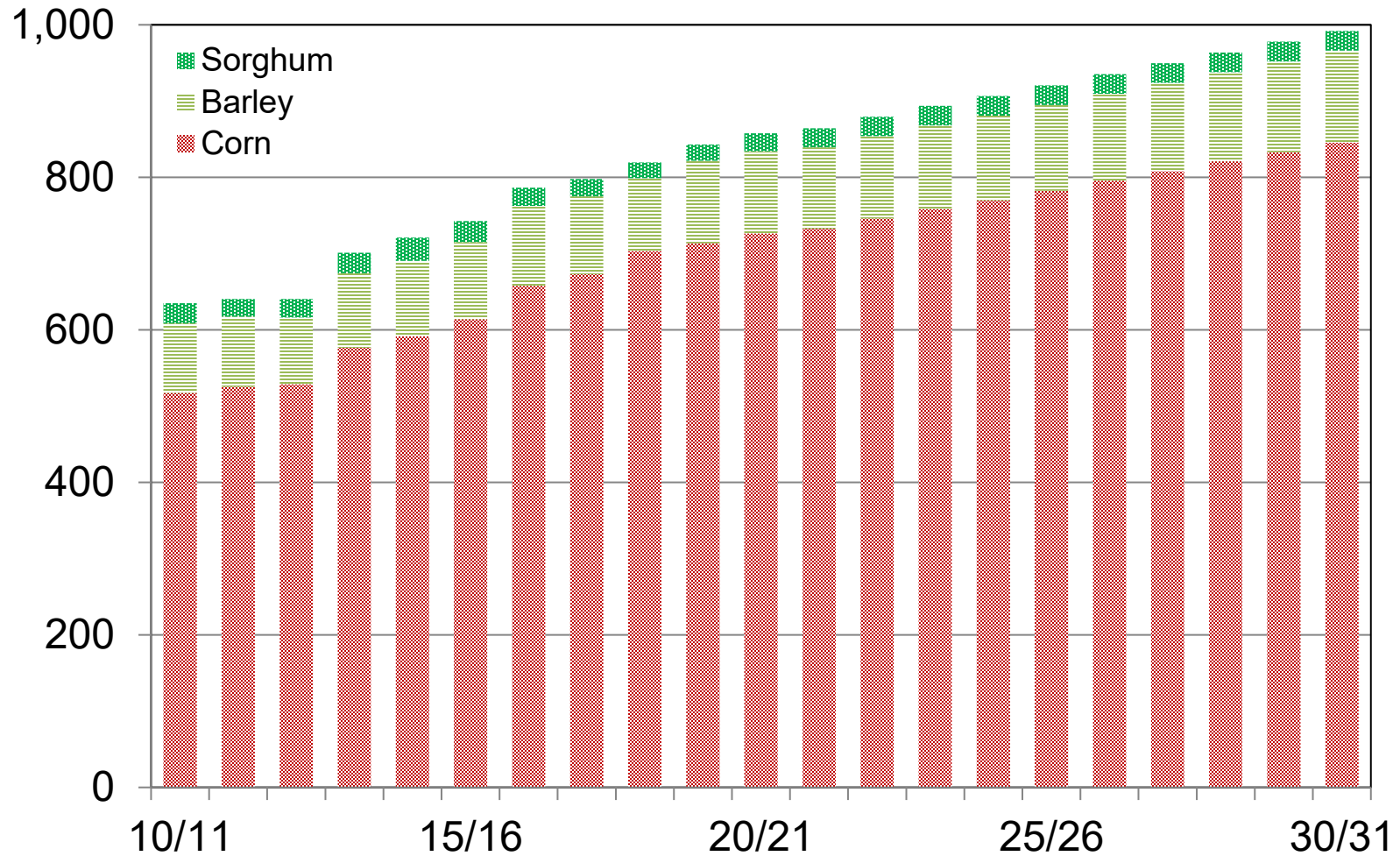


Yield Growth, Not Area, Drives Feedgrains Production



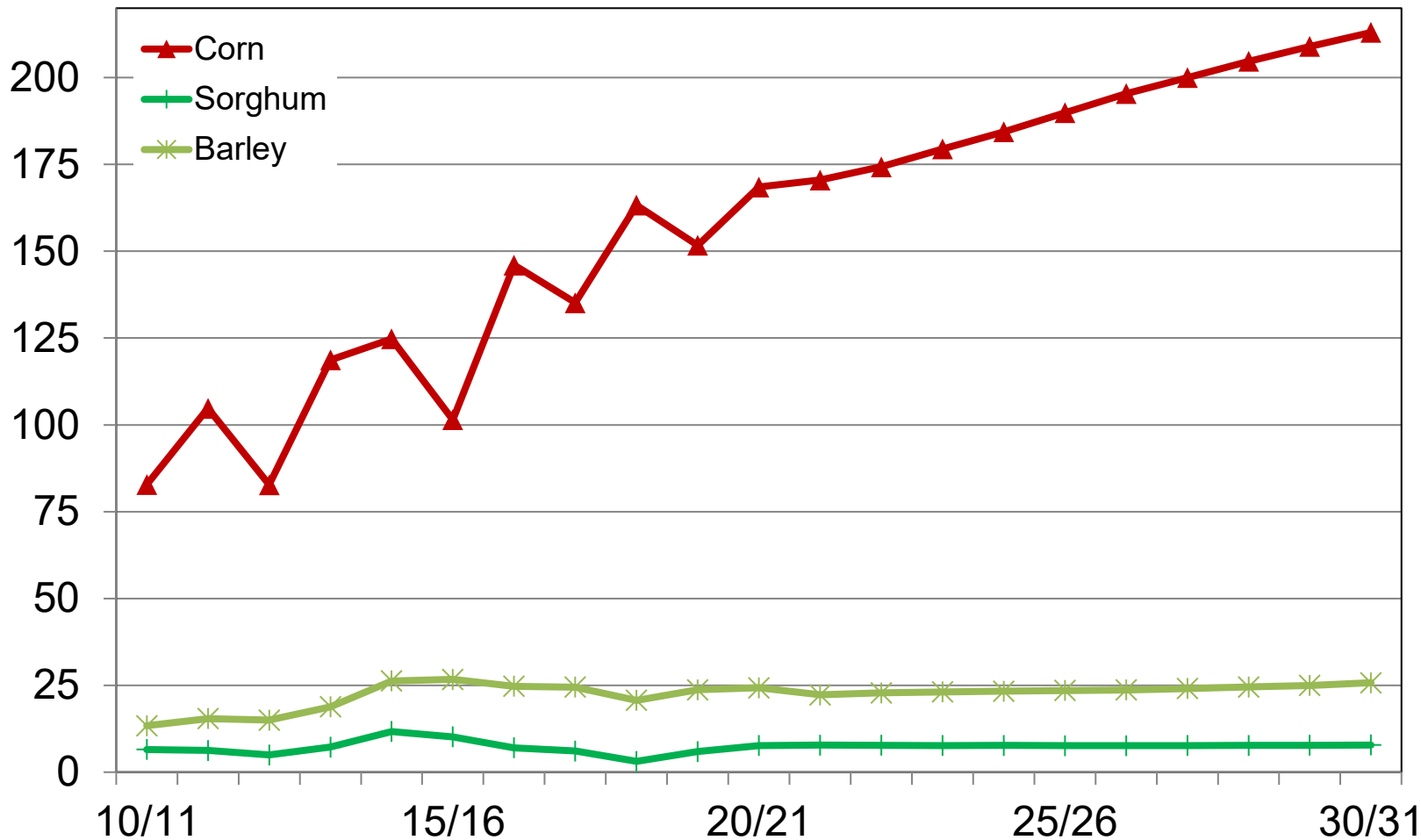
Most Increases in Feed Demand Will Be Met By Corn

Global feed use, mmt



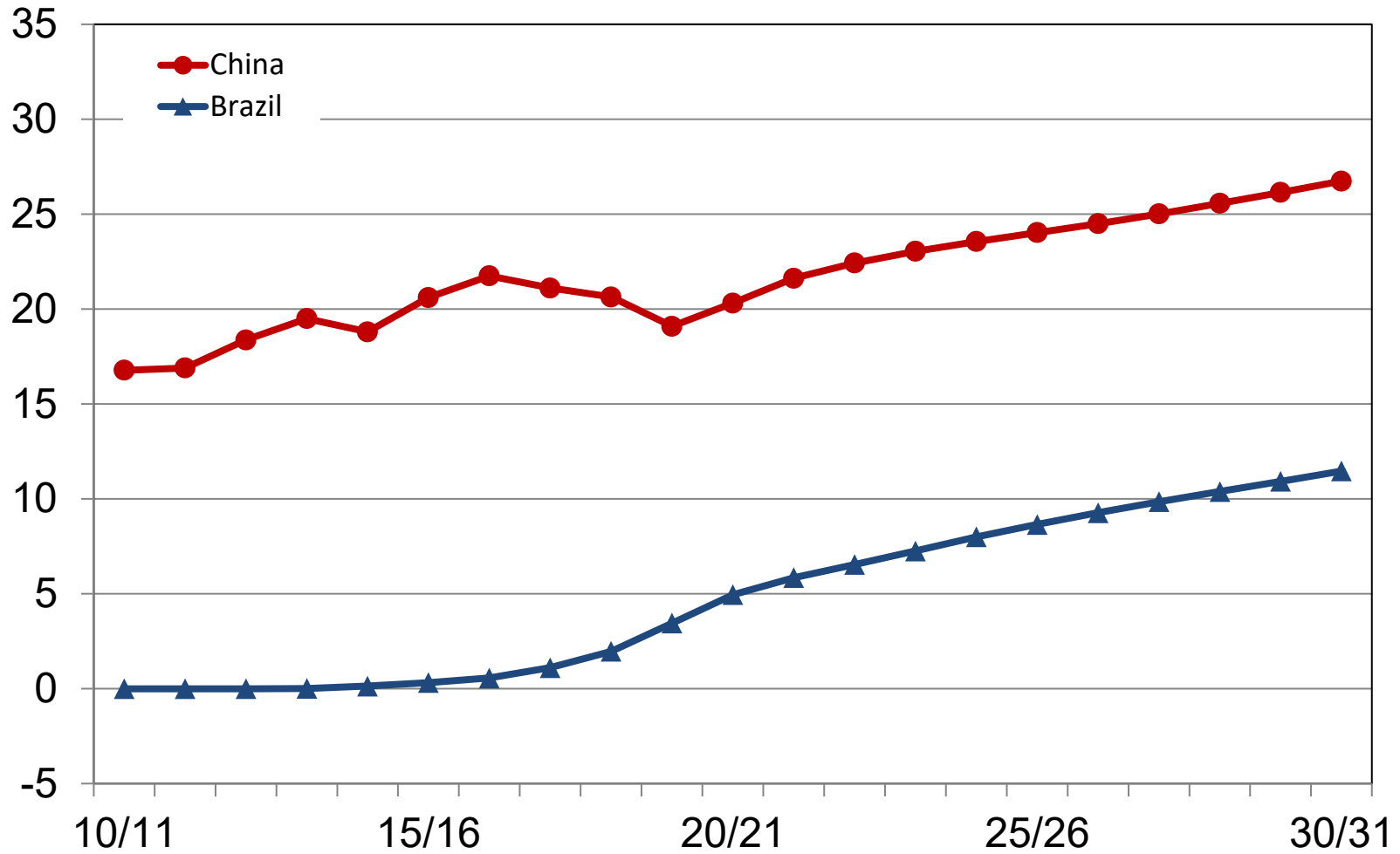
Corn Is Preferred Grain for Livestock Feed, Ethanol

Net exports by exporting countries, mmt



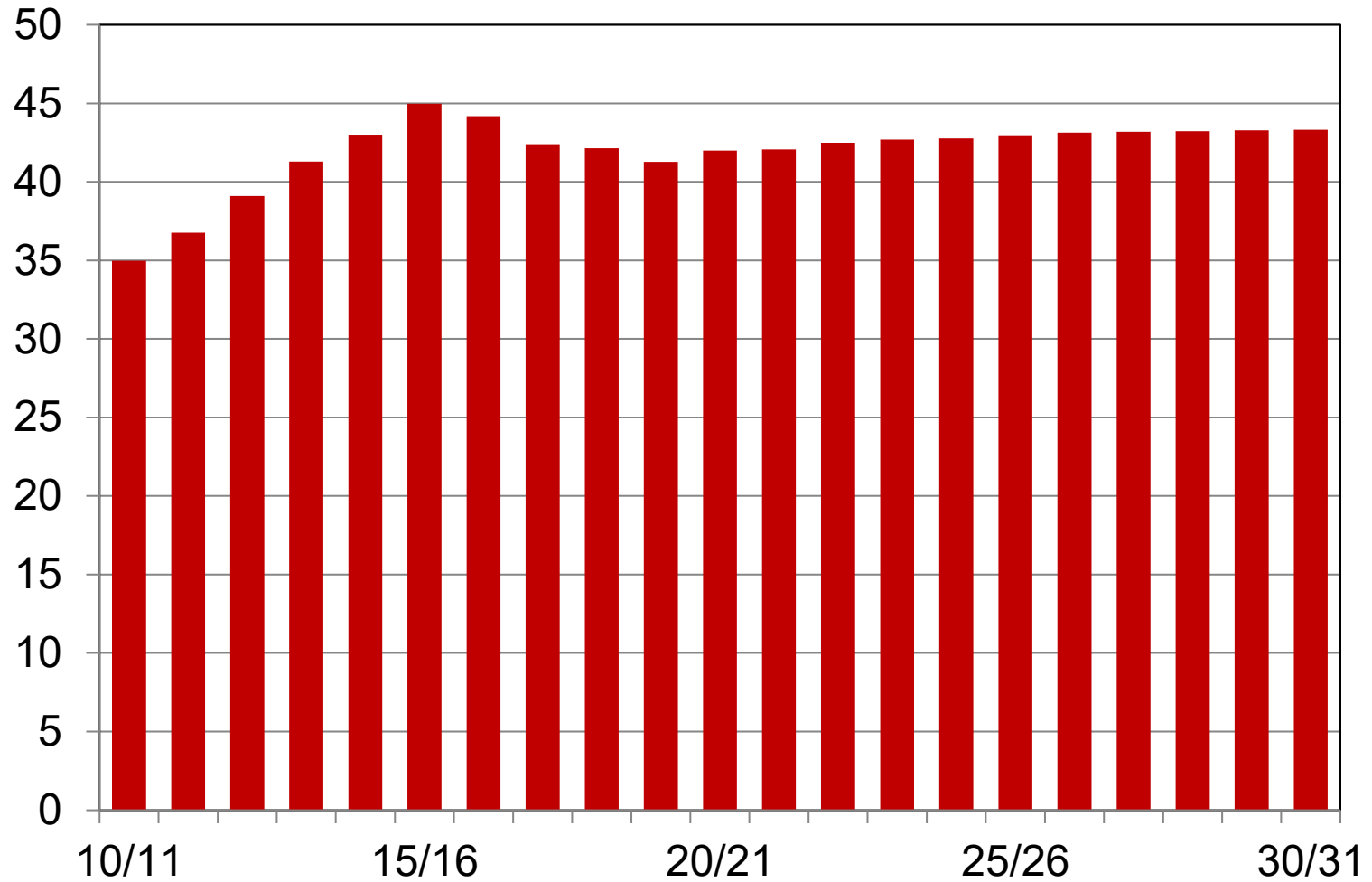
Domestic Use Drives Ethanol Feedstock Growth

Mil tonnes



ASF Impacts China's Production

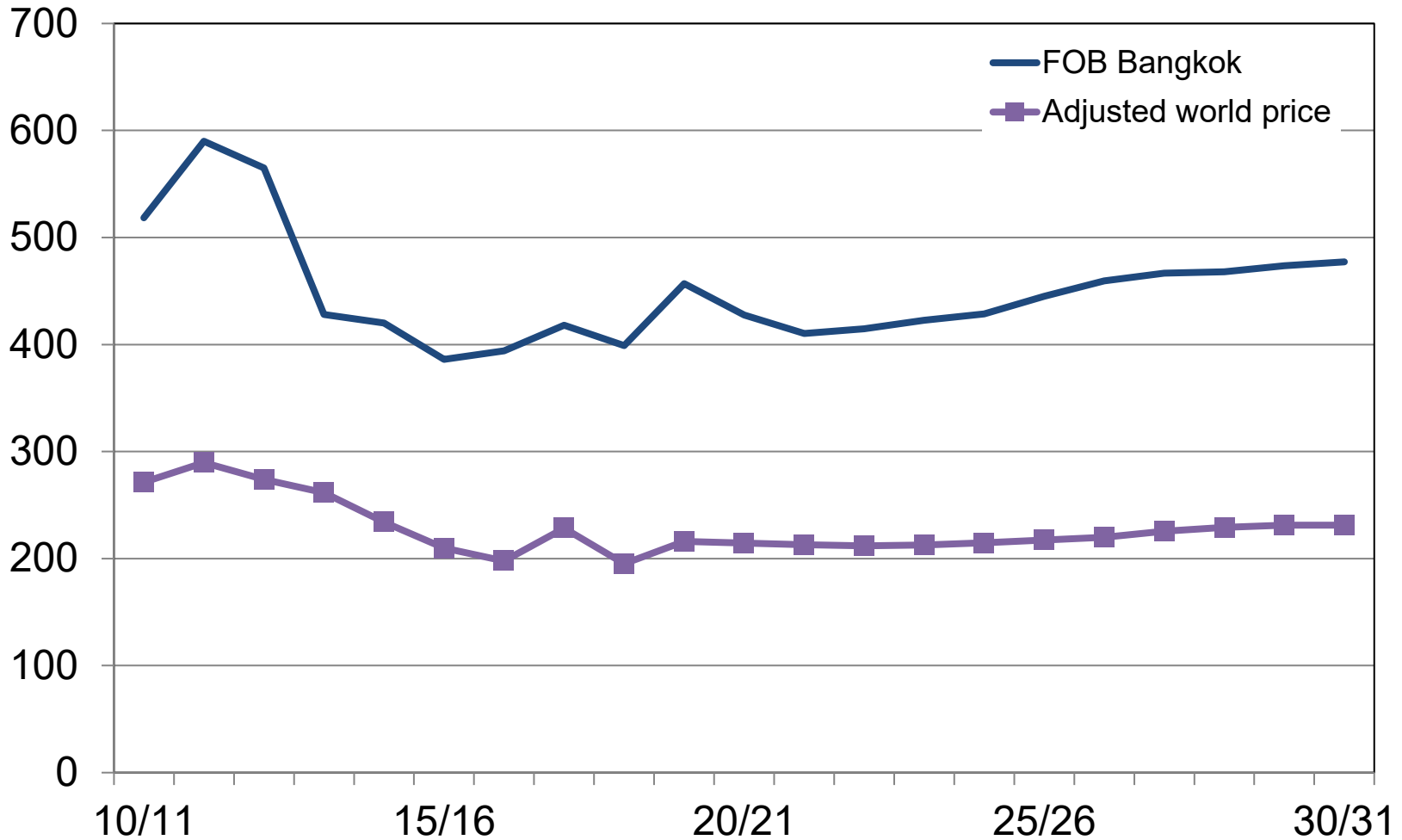
China corn area, million hectares



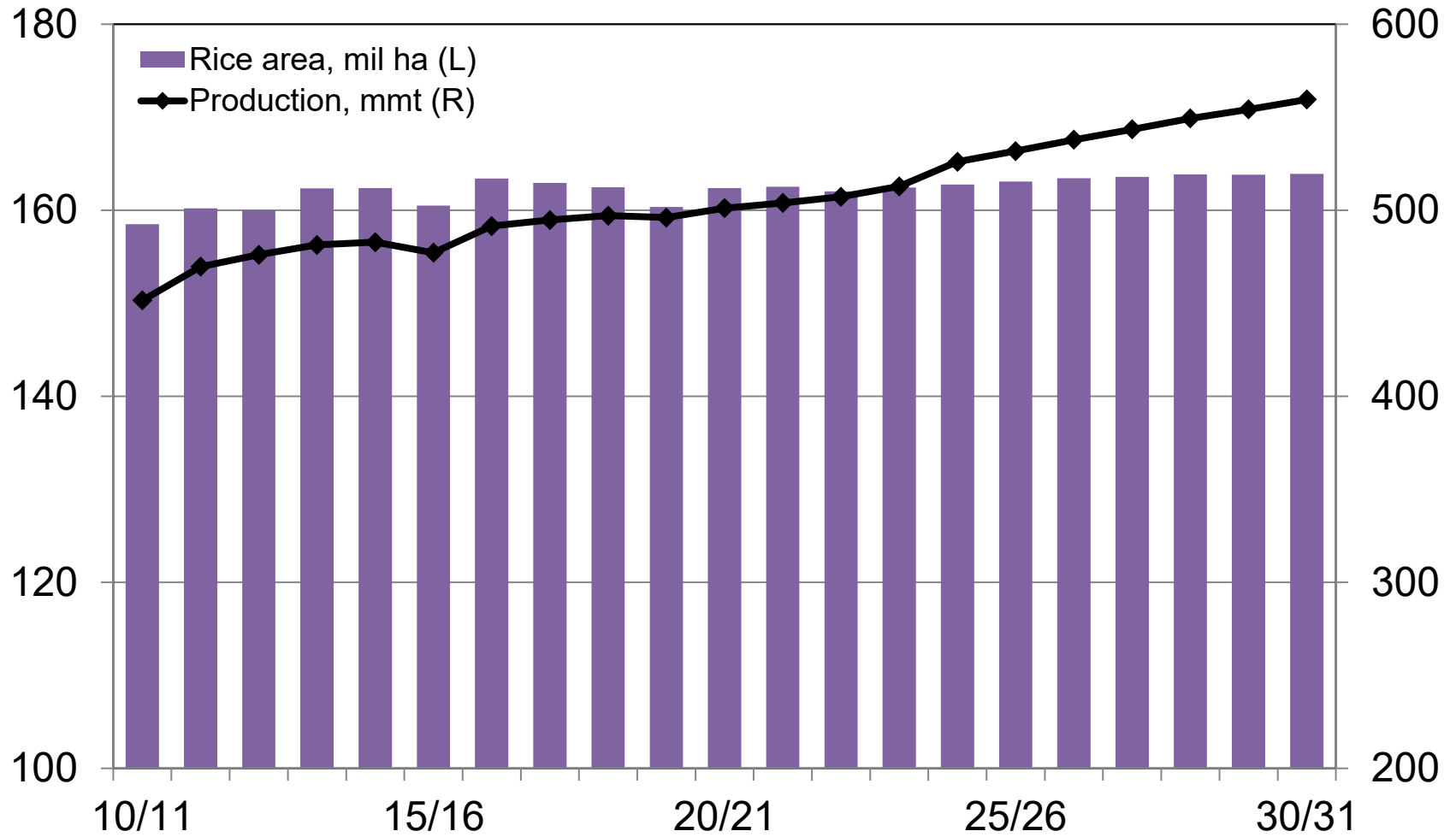
Rice

Rice Prices Have Upward Potential

Rice prices, \$/mt

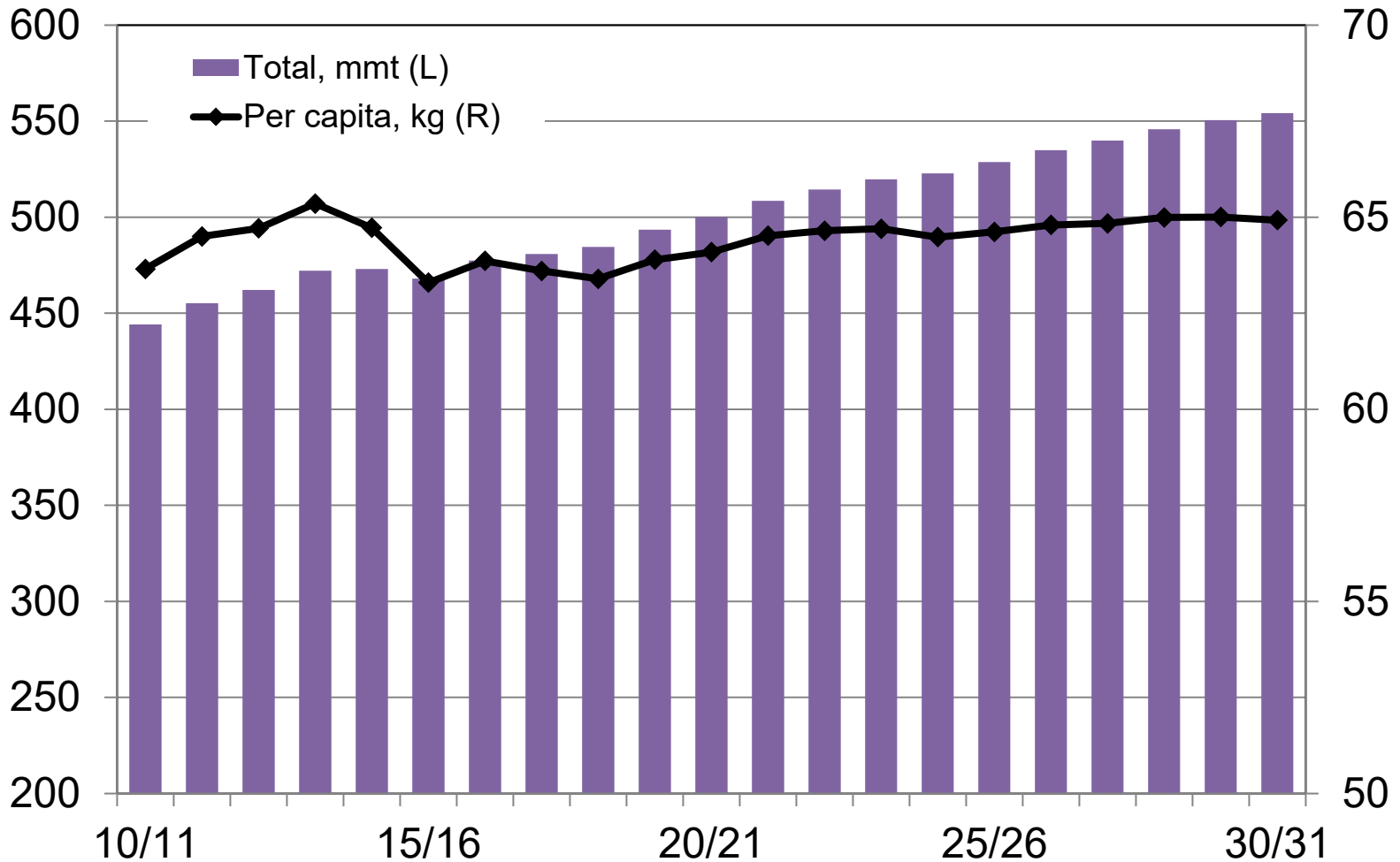


Rice Demand Growth Will Be Met By Productivity



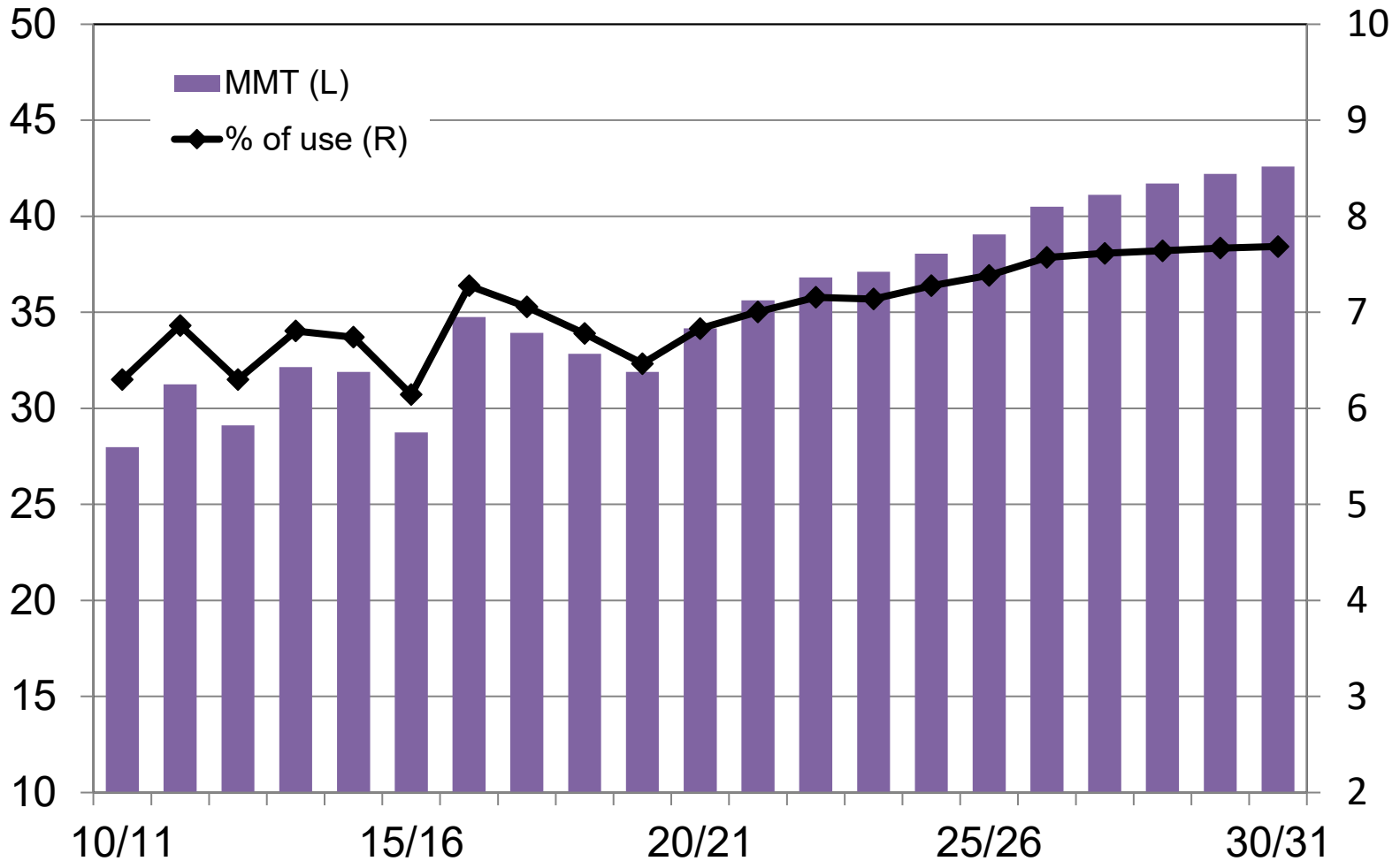
Rice Maintains Importance in Diets

Global rice food use



Most Rice Is Consumed in Producing Regions

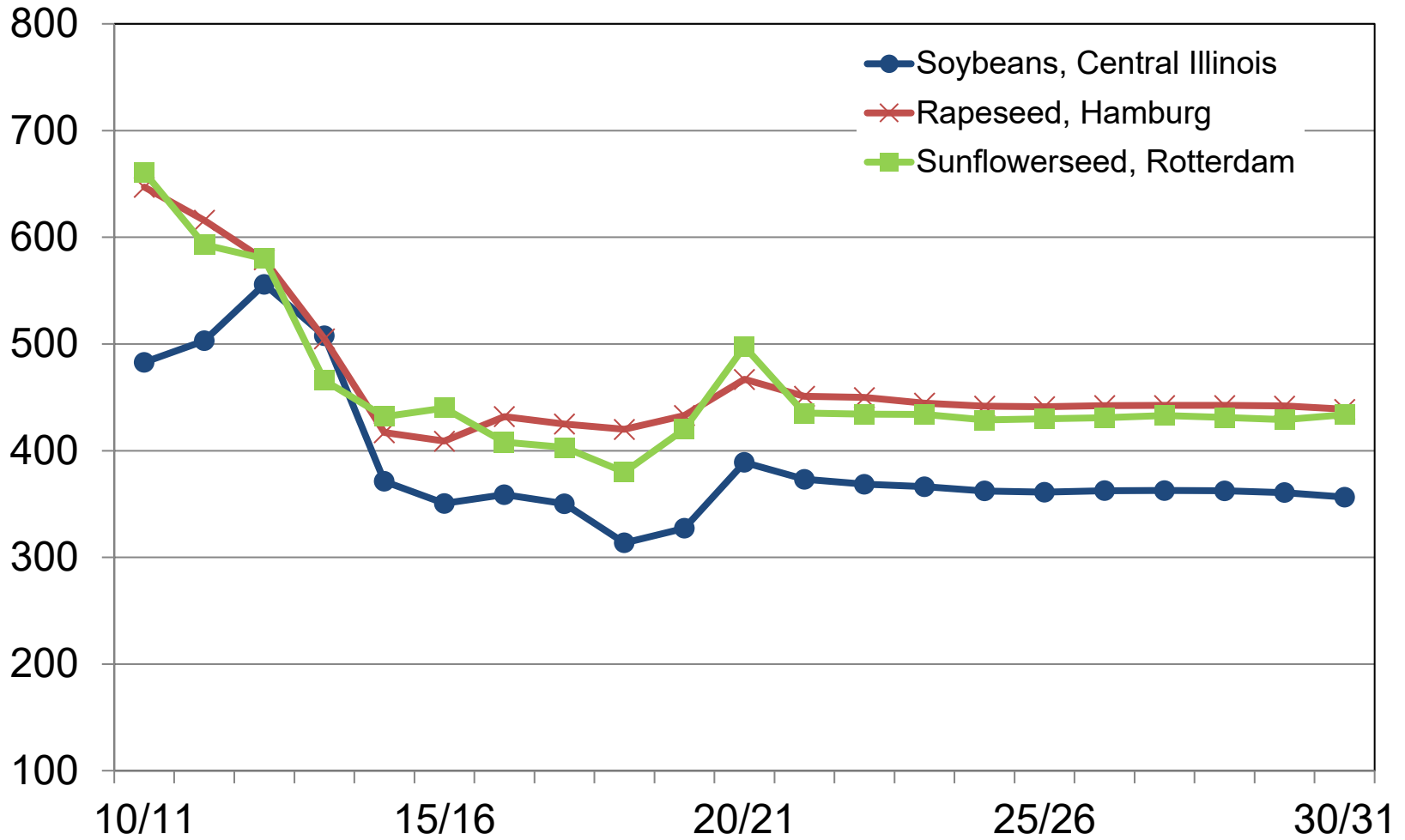
Rice net exports of exporting countries, mmt



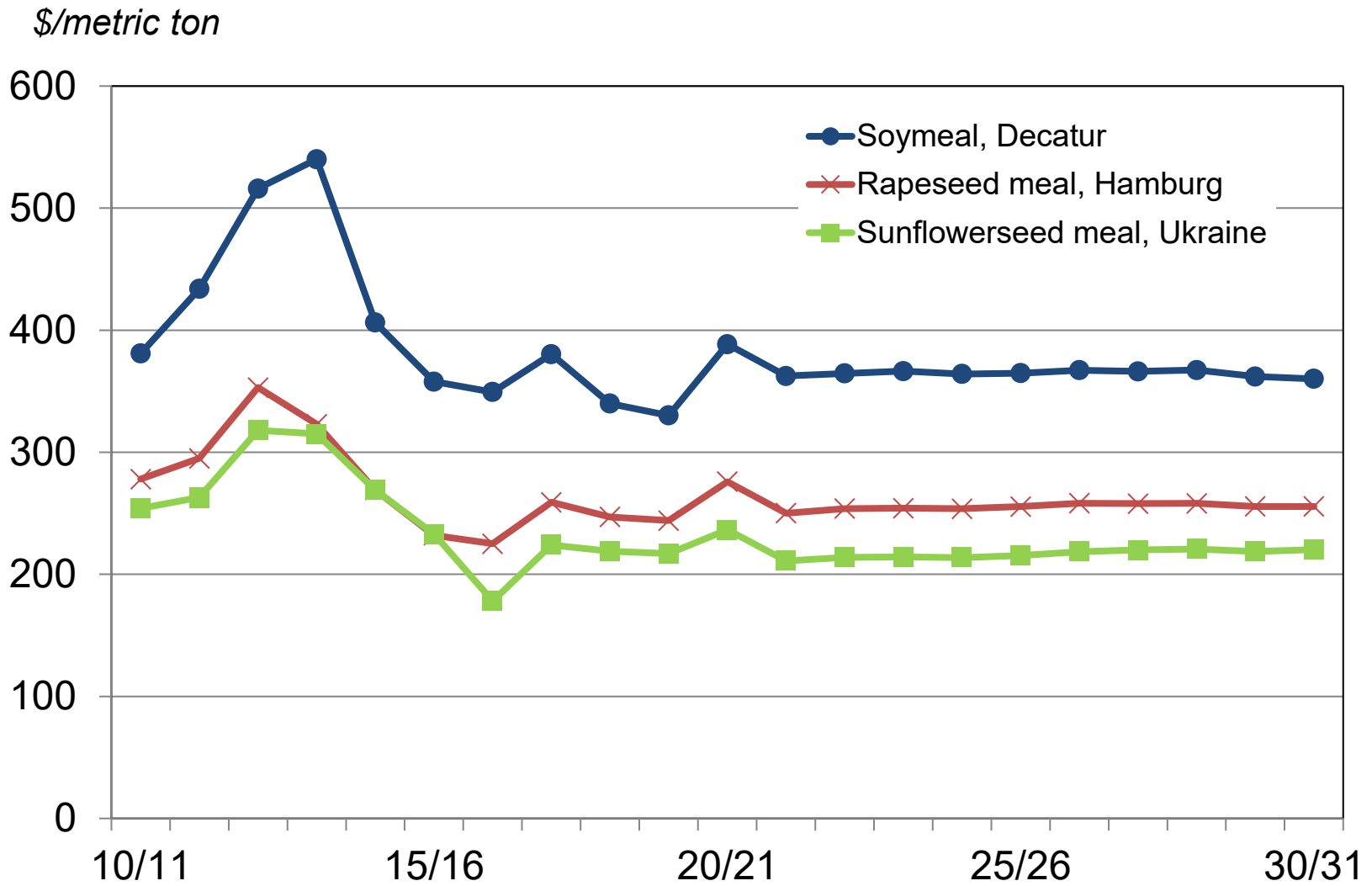
Oilseeds

Flat Prices Return After 2020

\$/metric ton

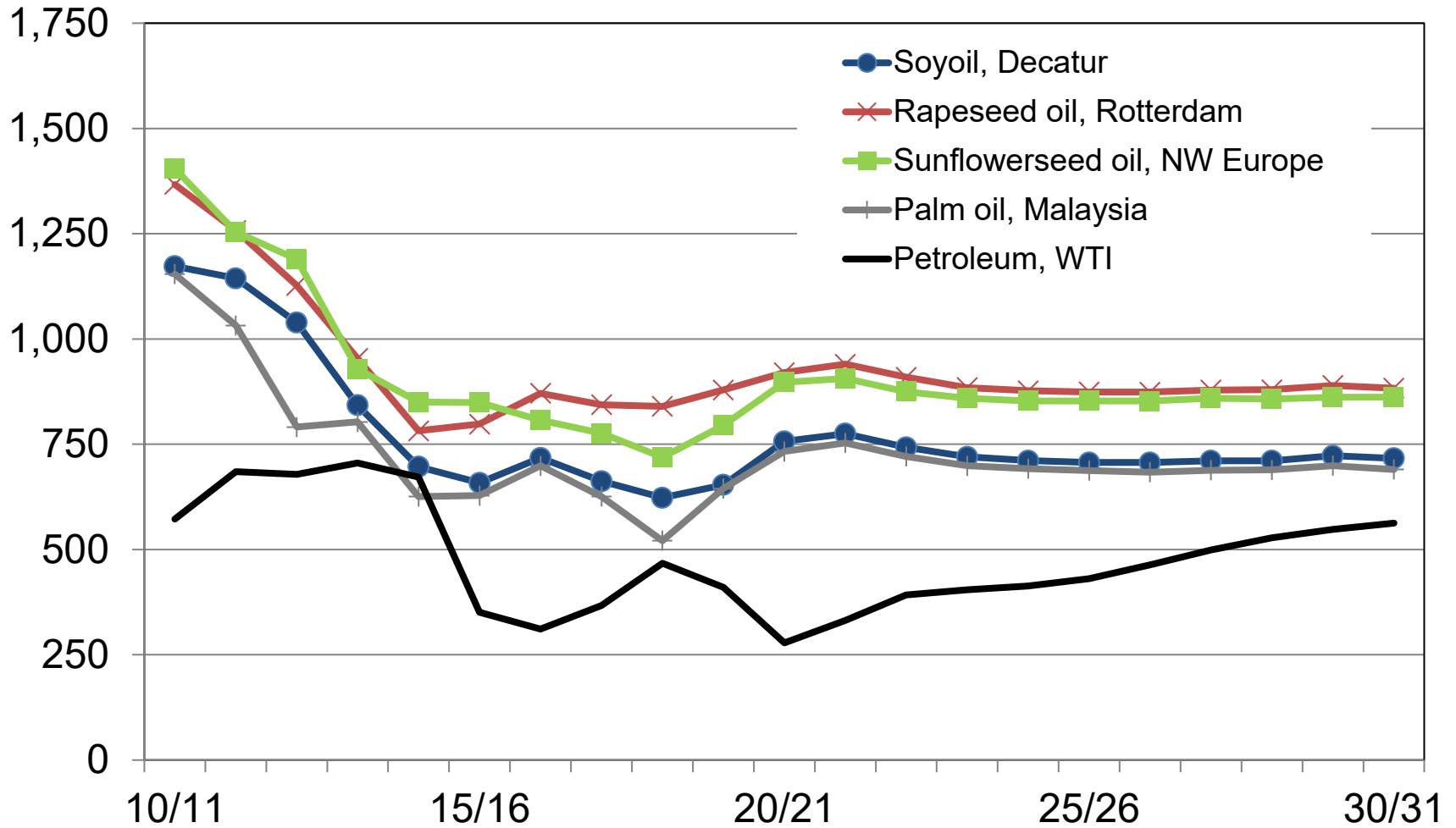


Low Meal Price Trends Continue After 2020



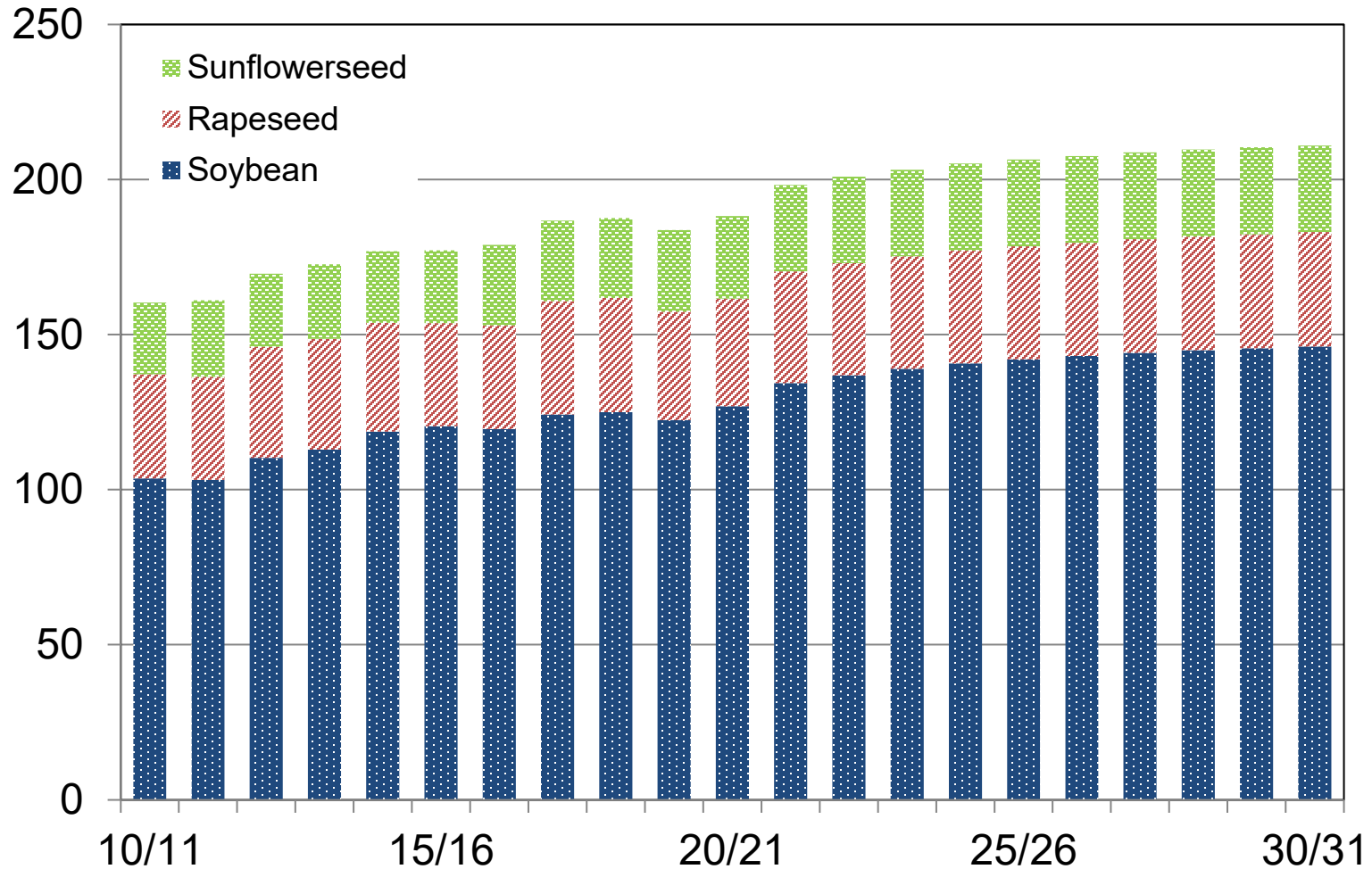
Oil Prices Return to Trend Over Projection Period

\$/metric ton



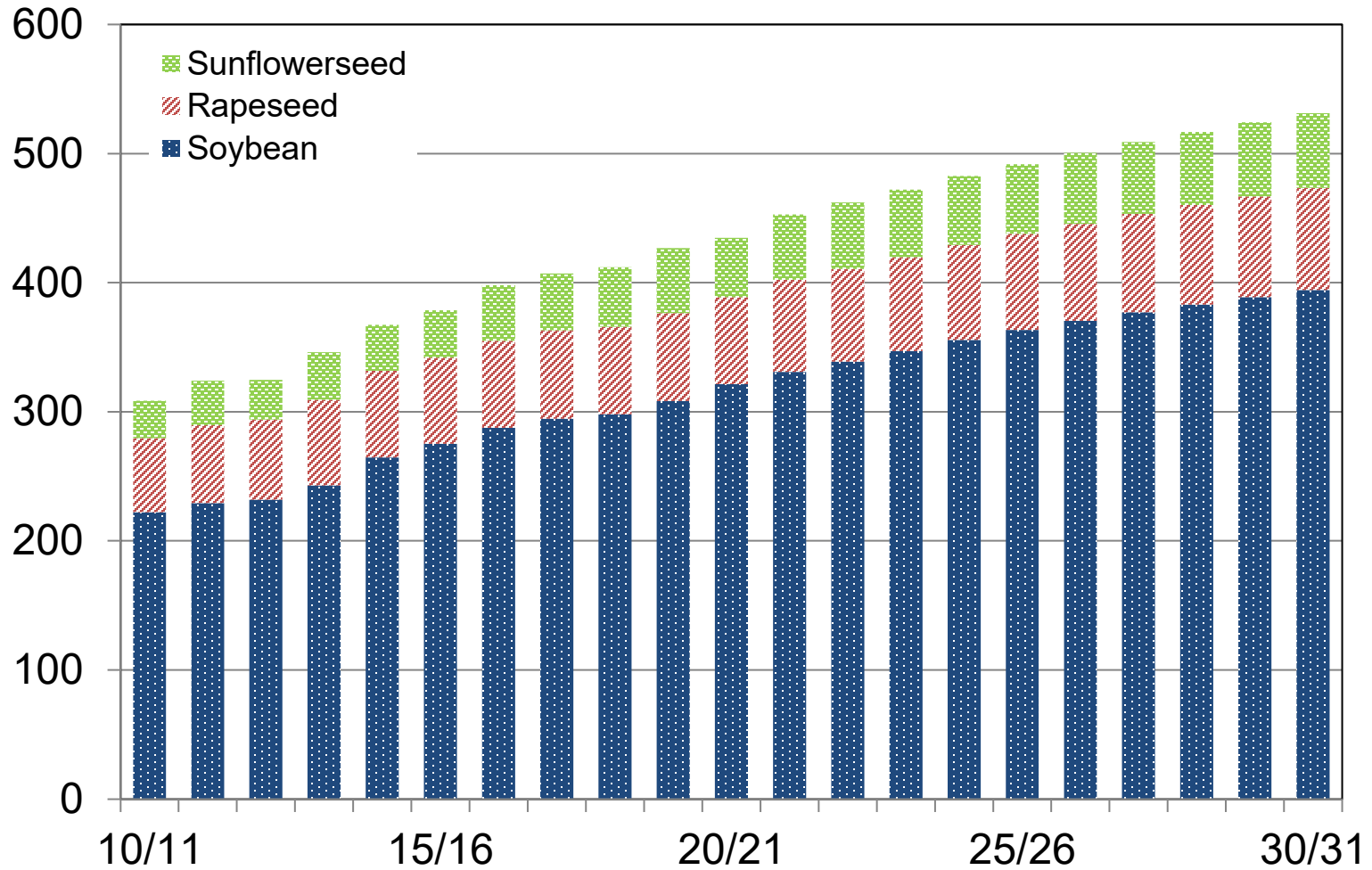
Area Expansion Is Primarily South American Soybeans

World oilseed area harvested, mil ha



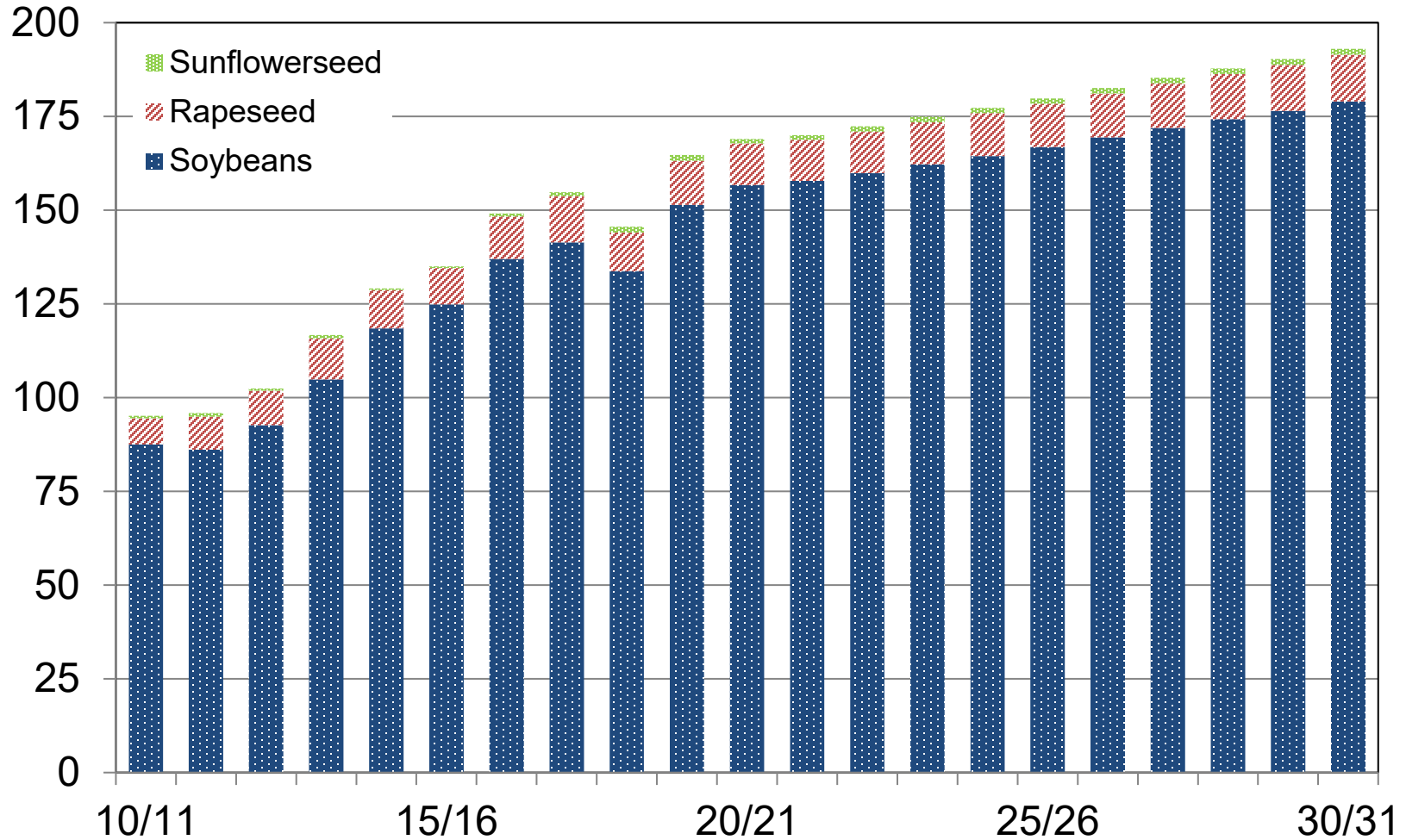
Income Growth Pushes Oil and Protein Demand

World oilseed crush, mmt



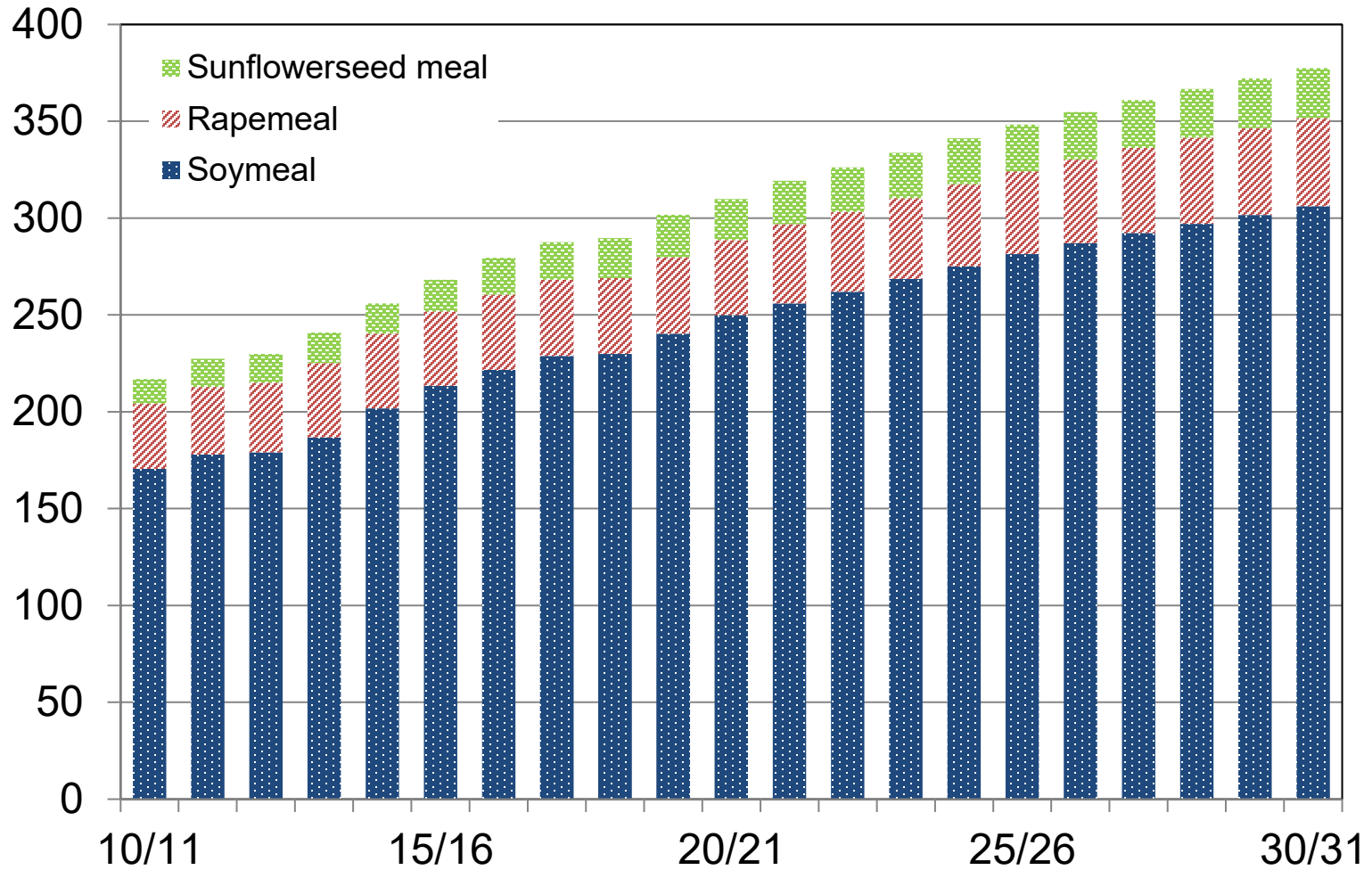
Soybeans Are Most Widely Traded Oilseed

Net exports by exporting countries, mmt



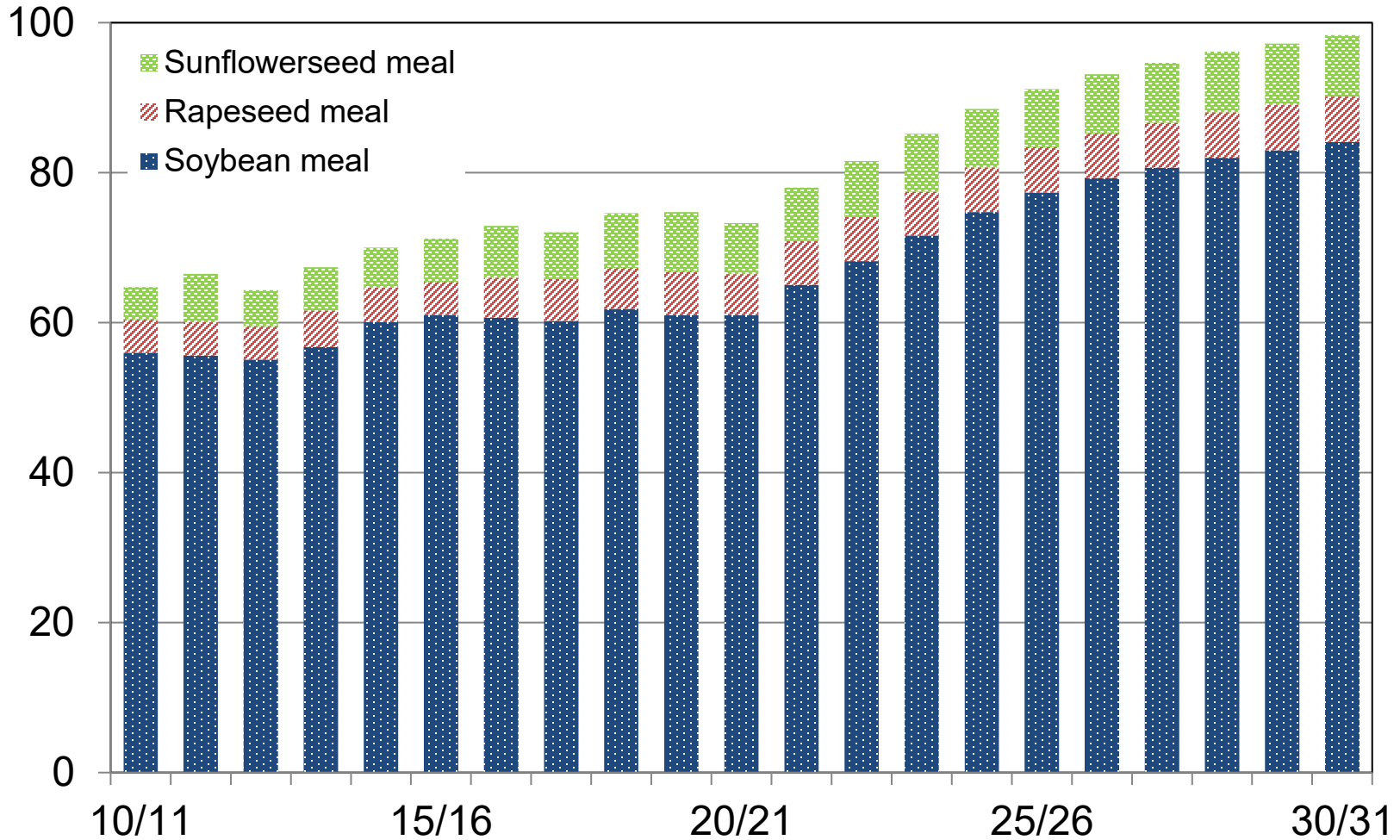
Protein Meals Pushed By Commercial Livestock

World protein meal use, mmt



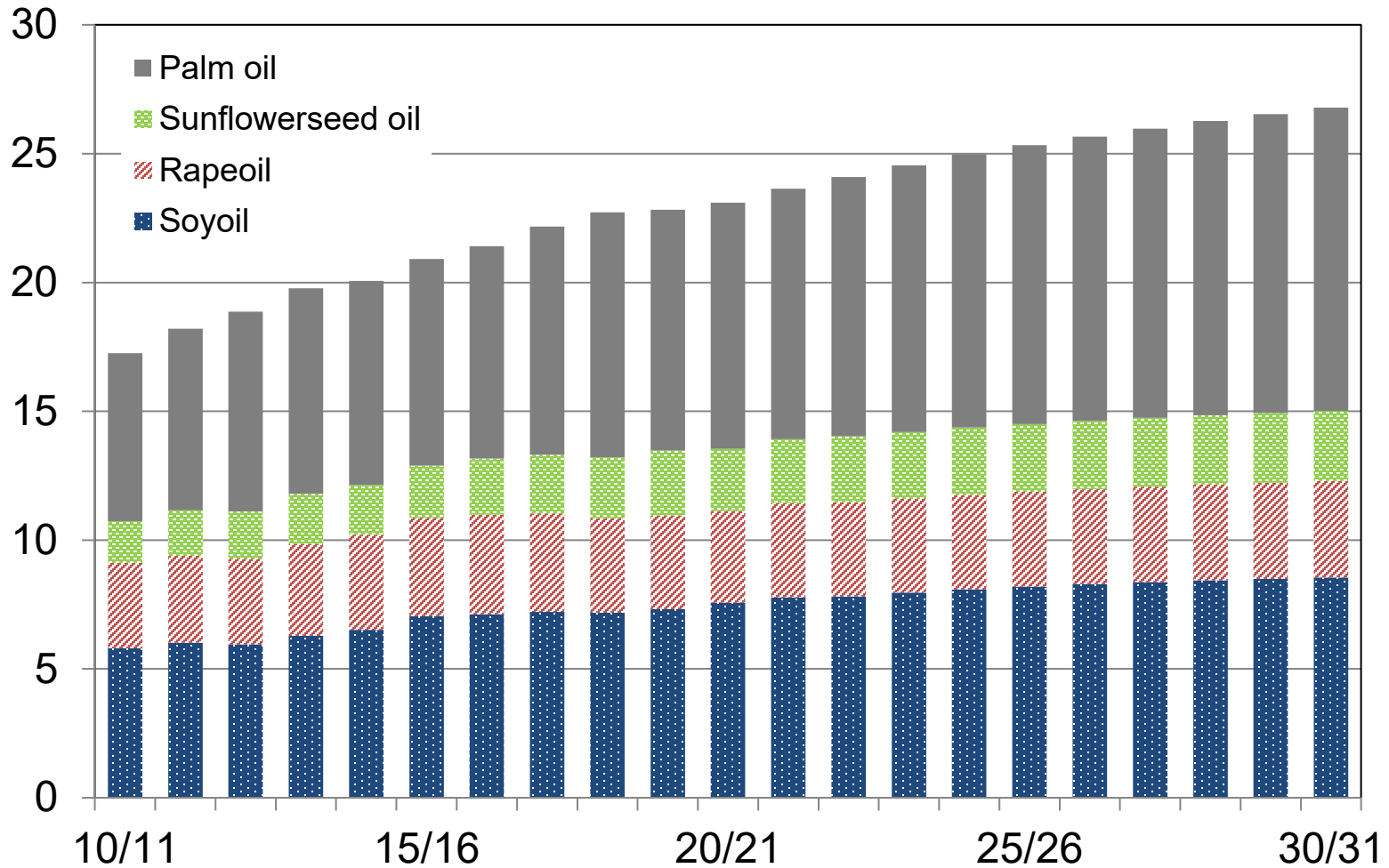
Soymeal Demand Reflects Increasing Feedstock Demand

Net exports by exporting countries, mmt



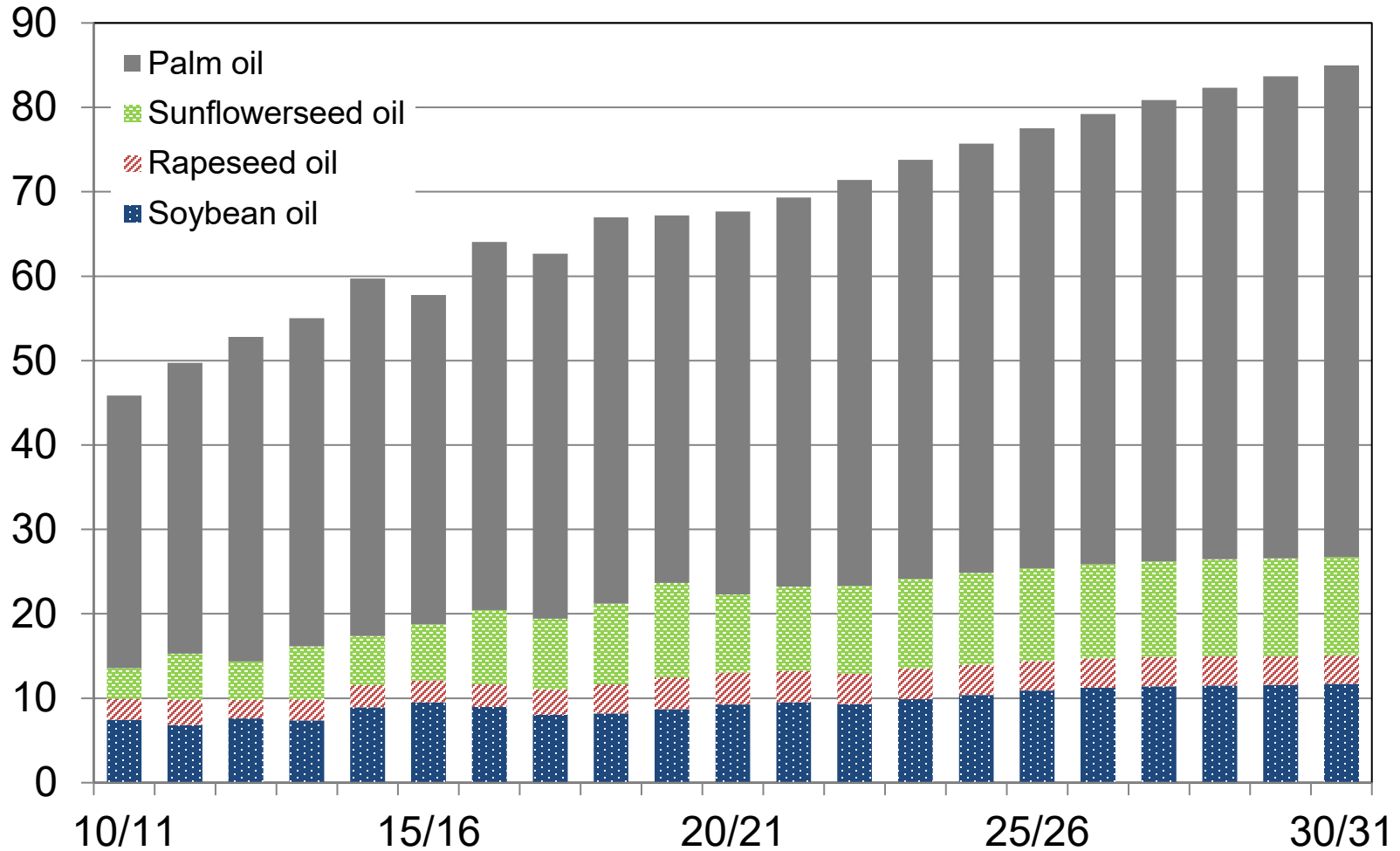
Income-Driven Food and Mandated Biofuels

World vegetable oil use, kg/capita



Cheaper Palm Oil Dominates World Trade

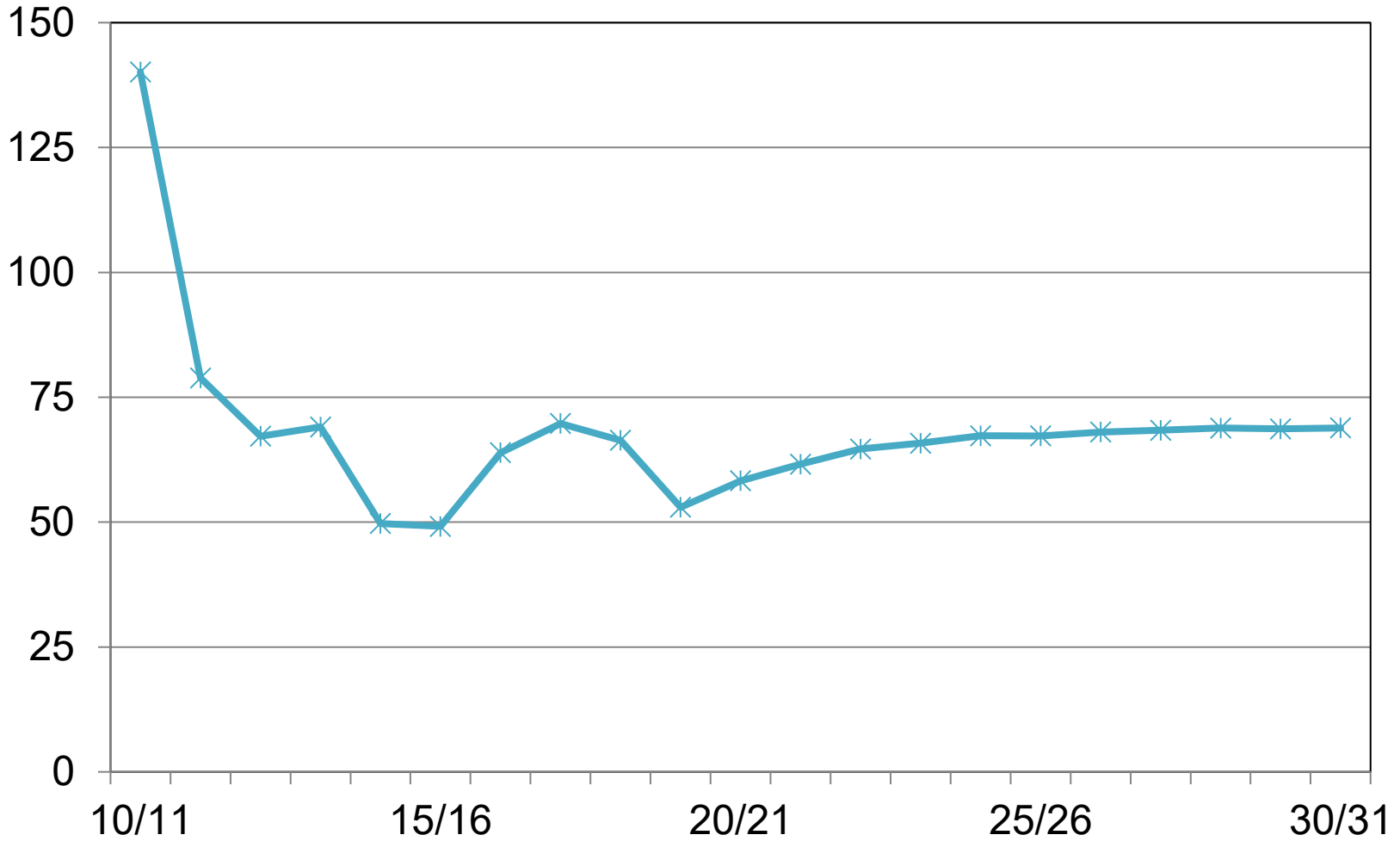
Net exports by exporting countries, mmt



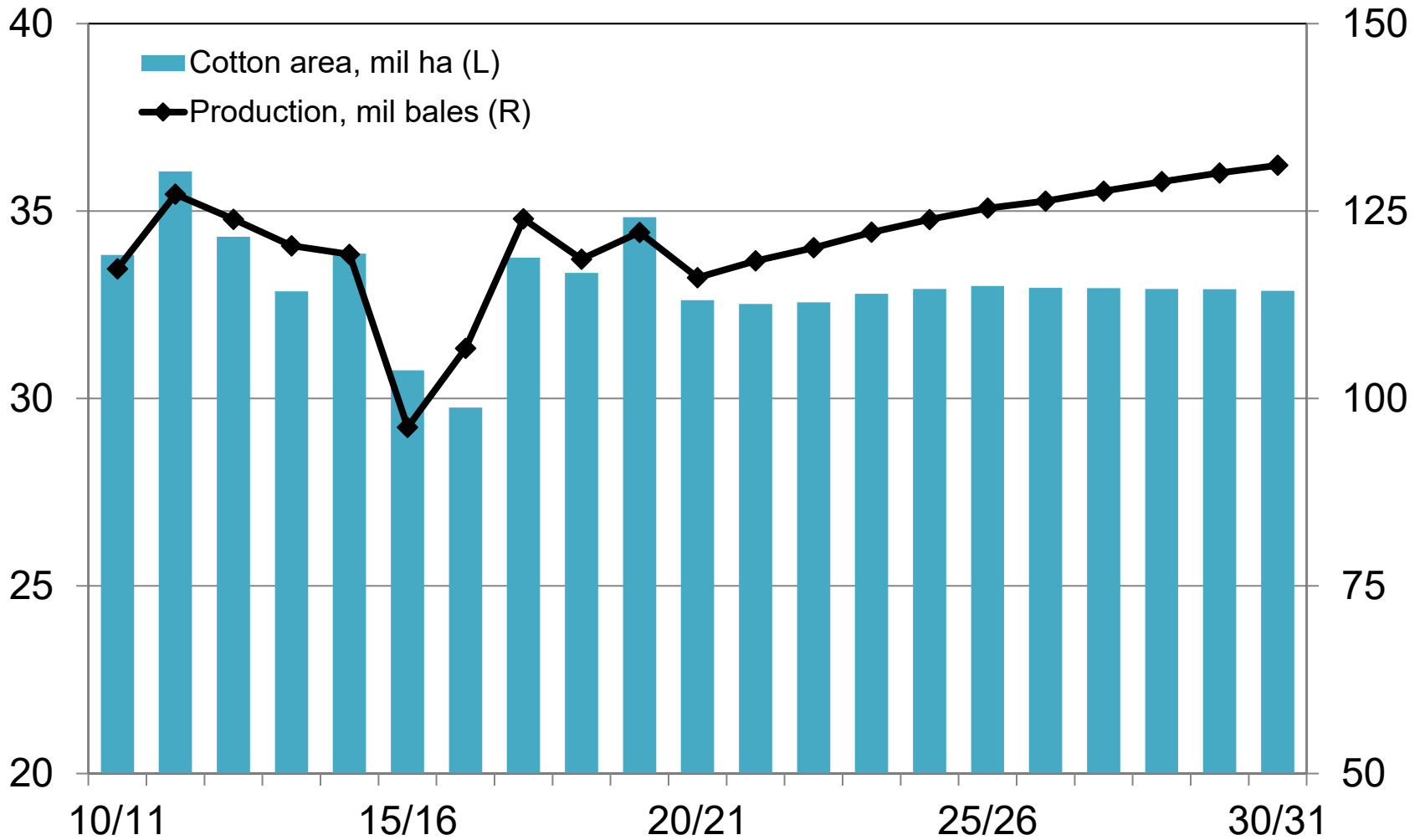
Cotton

Cotton Price Reflects Slow Population-Driven Demand

Cotton adjusted world price, cents/lb

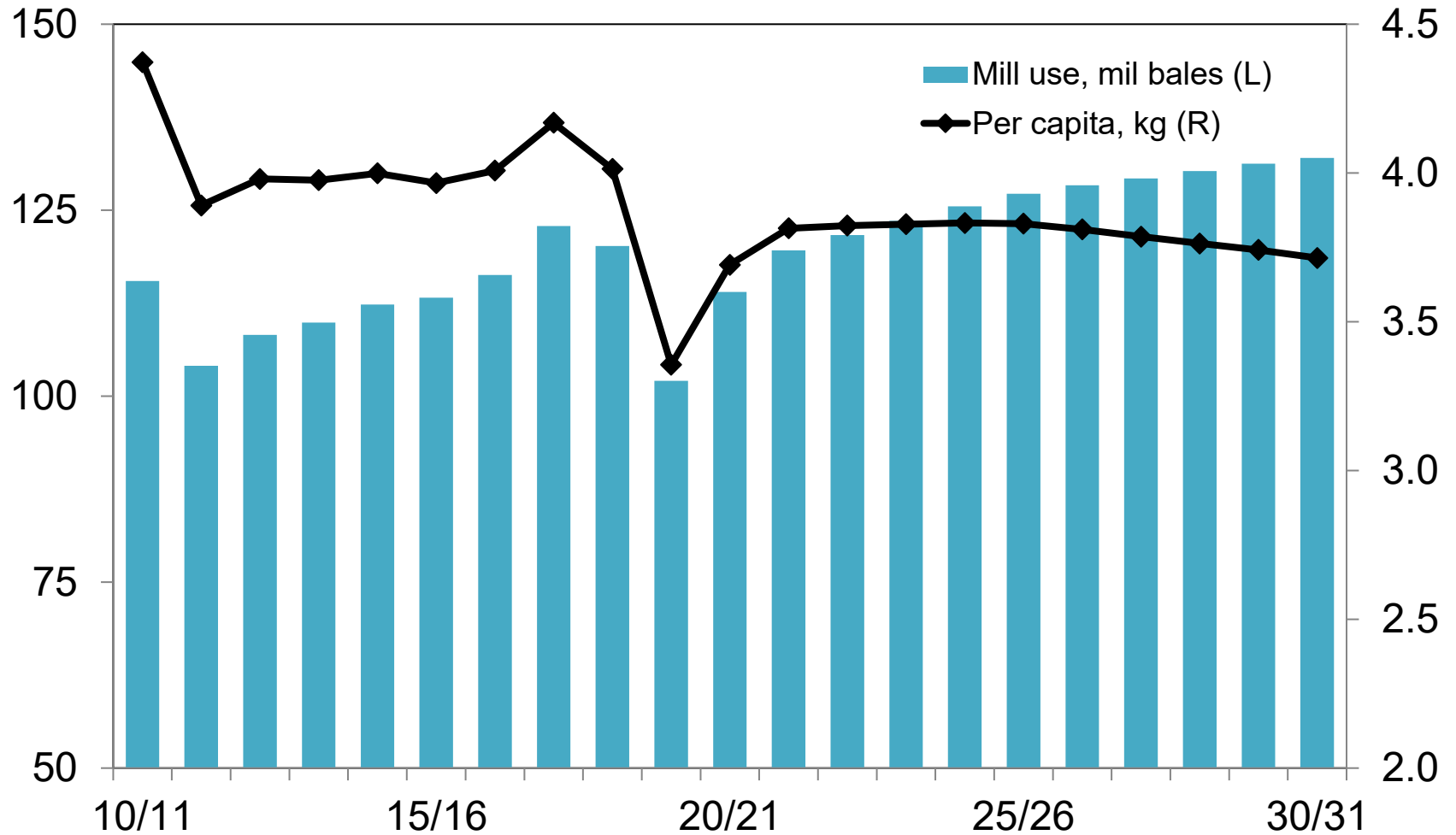


New Varieties Boost Yields, Production



Cotton Demand Will Be Primarily Population Driven

Global cotton mill use



Textile, Clothing Manufacturing Shifting to Bangladesh

Cotton net trade, mil. bales

