

## HIGHLIGHTS from SPECIAL FOCUS 1 THE ROLE OF MAJOR EMERGING MARKETS IN GLOBAL COMMODITY DEMAND

### Key Points

- *Rapid growth among the major emerging market and developing economies (EMDEs) over the past 20 years has boosted global demand for commodities. The seven largest EMDEs accounted for almost all the increase in global consumption of metals and two-thirds of the increase in energy consumption over this period.*
- *As these economies mature and shift towards less-commodity-intensive activities, their demand for most commodities is likely to decelerate.*
- *Based on current trends, global metals and foods demand growth could slow by one third over the next decade, while global energy consumption growth may remain broadly steady.*
- *The prospect of persistently lower demand reinforces the need for economic diversification and the strengthening of policy frameworks among commodity exporting EMDEs.*

**Rapid growth in global commodity consumption.** Global commodity consumption surged in 2000-08, driven by rapid growth in emerging market and developing economies (EMDEs). Demand for metals grew particularly quickly (Figure SF1.A). Over this period, real energy prices rose 154 percent, metals prices increased 107 percent, and food prices rose 62 percent (Figure SF1.B).

**Demand driven by the seven largest EMDEs.** The seven largest EMDEs, the EM7 (Brazil, China, India, Indonesia, Mexico, Russian Federation and Turkey), were the main drivers of the surge in demand. The EM7 accounted for 92 percent of the increase in global metals consumption, 67 percent of the increase in global energy consumption, and 39 percent of the increase in global food consumption between 1996 and 2016 (Figure SF1.C and SF1.D). Collectively, they now account for around 60 percent of the consumption of metals and 40 percent of the consumption of energy and food.

**Plateauing per capita commodity demand with rising incomes.** The relationship between commodity consumption and income is captured by the income elasticity of demand: the percent increase in commodity consumption associated with a 1 percent increase in income. Estimated income elasticities of demand for commodities tend to be lower in higher income countries (Figure SF1.E). As economies mature and per capita incomes rise, demand for commodities tends to plateau. Consumer demand shifts towards services, which are less resource-intensive than goods, while infrastructure needs lessen, reducing demand for additional physical capital, and therefore for industrial materials. This implies that as incomes rise in the EM7 countries, their demand for commodities may also plateau.

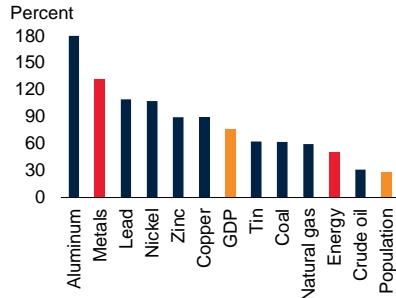
**Longer-term prospects.** On current trends, metals and foods consumption growth could slow by one-third over the next decade (Figure SF1.F). Energy consumption growth would remain broadly constant at post-crisis rates (that are well below pre-crisis rates), and shift towards EMDEs. For the two-thirds of EMDEs that depend on raw materials for government and export revenues, the prospect of persistently lower demand heightens the need for economic diversification. Over the medium term, diversification away from resource-based production could help raise GDP per capita and improve growth prospects.

# Global Economic Prospects

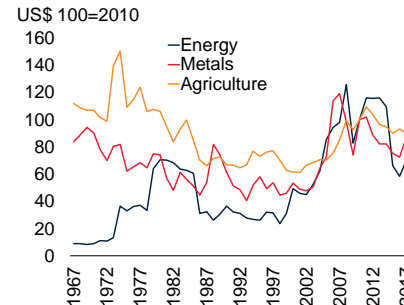
**Figure SF1. Impact of Major Emerging Markets on Global Commodity Consumption**

Consumption of most commodities has surged over the past two decades, with a correspondingly large increase in commodity prices. The seven largest emerging market and developing economies (EM7) accounted for almost all of the increase in metals demand, and half of the increase in energy demand over this period. Demand for commodities tends to plateau as incomes rise. Based on current trends, global metals and foods demand growth could slow by one third over the next decade, while global energy consumption growth may remain broadly steady.

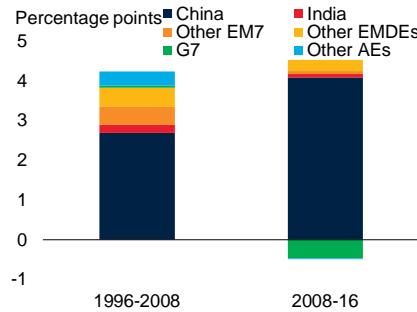
**A. Cumulative growth in GDP, population, energy and metals consumption, 1996-2016**



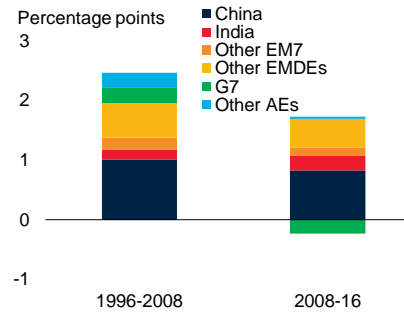
**B. Real commodity prices**



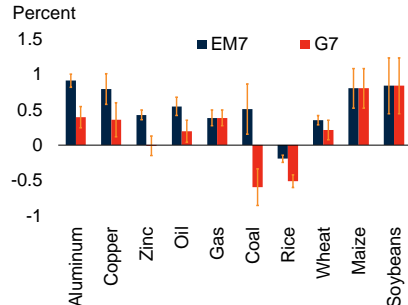
**C. Contribution to growth in metals consumption**



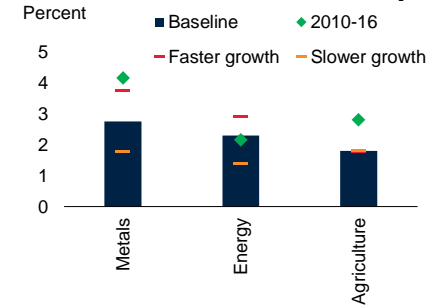
**D. Contribution to growth in energy consumption**



**E. Income elasticities in EM7 and G7 countries**



**F. Scenario forecasts of commodity demand growth**



Sources: BP Statistical Review, United Nations, U.S. Department of Agriculture, World Bank, World Bureau of Metals Statistics.

A. Metals include aluminum, copper, lead, nickel, tin, and zinc. Energy includes coal, oil, gas, nuclear energy, and renewables.

B. Real commodity prices are calculated as the nominal price deflated by the international manufacturers unit value index.

C.D. Average of annual growth rates.

E. Income elasticity is defined as percent change in commodity consumption for each 1 percent increase in commodity price. Elasticities were estimated by means of a pooled mean group auto-regressive distributive lag model, using data on per capita commodity consumption, per capita real income in U.S. dollars, and real commodity prices. EM7 includes Brazil, China, India, Indonesia, Mexico, Russia, and Turkey. Vertical bars are 95 percent confidence intervals.

F. Estimates show model-predicted global commodity demand growth over 2018-27, using United Nations population projections; real output growth forecasts as estimated in the January 2018 *Global Economic Prospects*; income elasticities shown in Figure SF1.E; and holding commodity prices flat. To ensure comparability, 2010-16 is also model-predicted commodity demand growth. The faster growth “reform” scenario assumes 0.7 percentage point higher output growth through 2018-27, while the slower growth “recession” scenario assumes 1 percentage point lower output growth for the first five years of 2018-27, based on the January 2018 edition of the *Global Economic Prospects* report.

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