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# Managing the Risk of Commodity Price Fluctuations

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Public Debt Management Forum

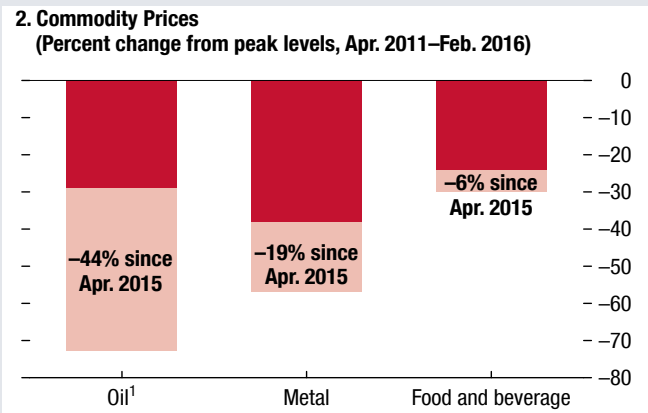


# General Observations

1. In checking the medium term debt management strategies and annual borrowing plans, nearly all government debt managers **DO NOT** make reference to commodity price risk (exception Colombia).
2. It is more likely that there is reference to commodity prices in the Budget and/or MTFF and in some countries commodity price risks are included in scenario analyses.

# Volatility of Commodity Price Indices

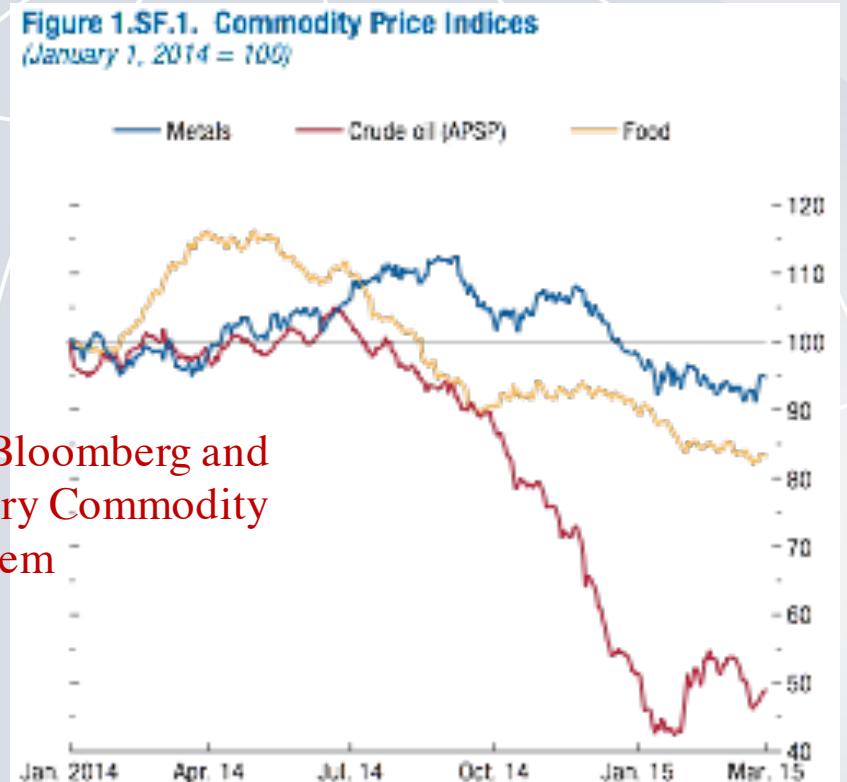
IMF Fiscal Monitor (April 2016)



2005-2015



January 2014 to March 2015



## Global Dairy Trade Price Index



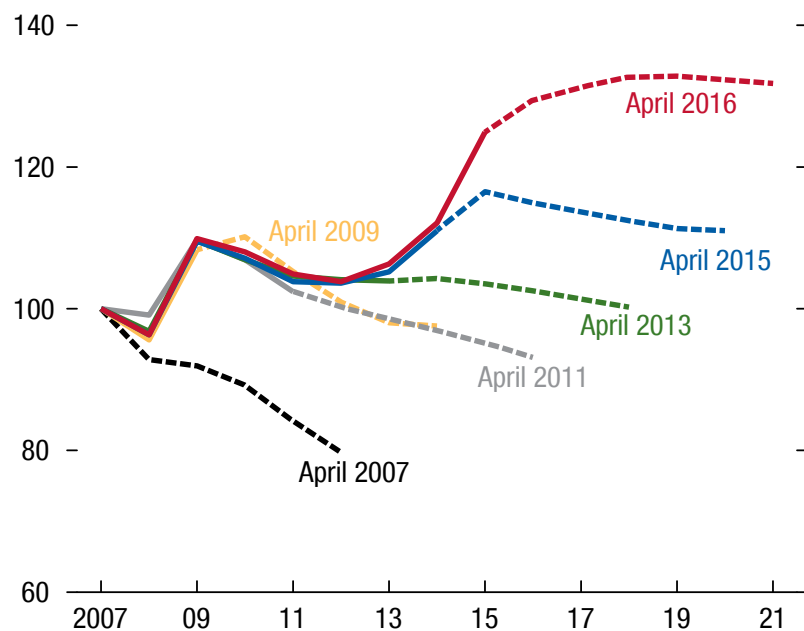
Sources: Bloomberg and MF Primary Commodity Price System

Sources: Bloomberg, L.P.; and IMF, Primary Commodity Price System.  
Note: Metals index is a weighted index of aluminum, copper, lead, nickel, tin, and zinc. Food index is a weighted index of barley, corn, wheat, rice, soybean meal, soybeans, soybean oil, swine, palm oil, poultry, and sugar. Data are through March 25, 2015. APSP = average petroleum spot price—average of U.K. Brent, Dubai, and West Texas Intermediate, equally weighted.

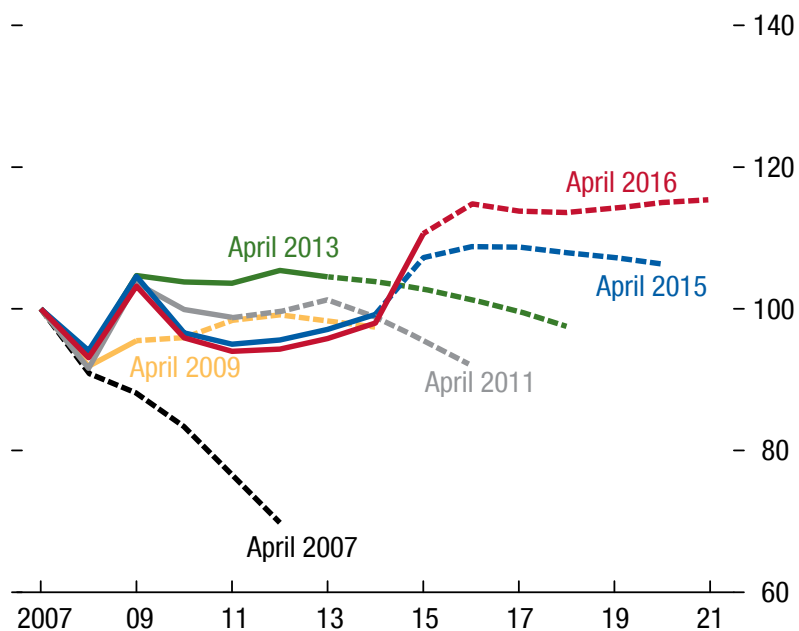
# Impact on Gross Debt-to-GDP Ratios

**Figure 1.1. Revisions to General Government Gross Debt-to-GDP Ratio, 2007–21**  
(Rebased debt ratio, index 2007 = 100)

## 1. Emerging Market and Middle-Income Economies, Excluding China



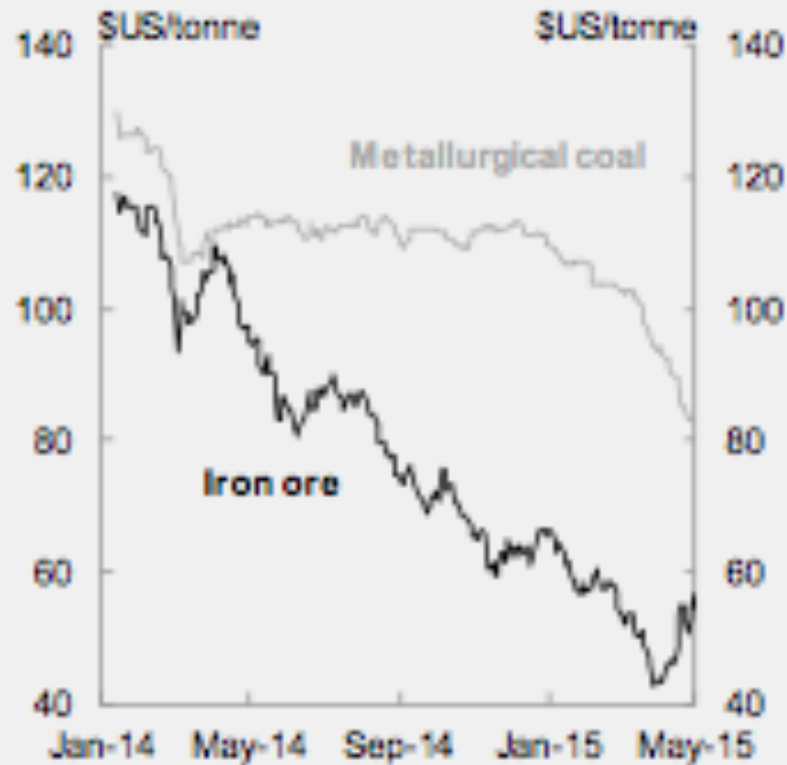
## 2. Low-Income Developing Countries



Source: IMF staff estimates.

# Australia and the Iron Ore Price Index

**Chart A: Recent spot price developments**



Source: Platts.

## 2015-16 Budget

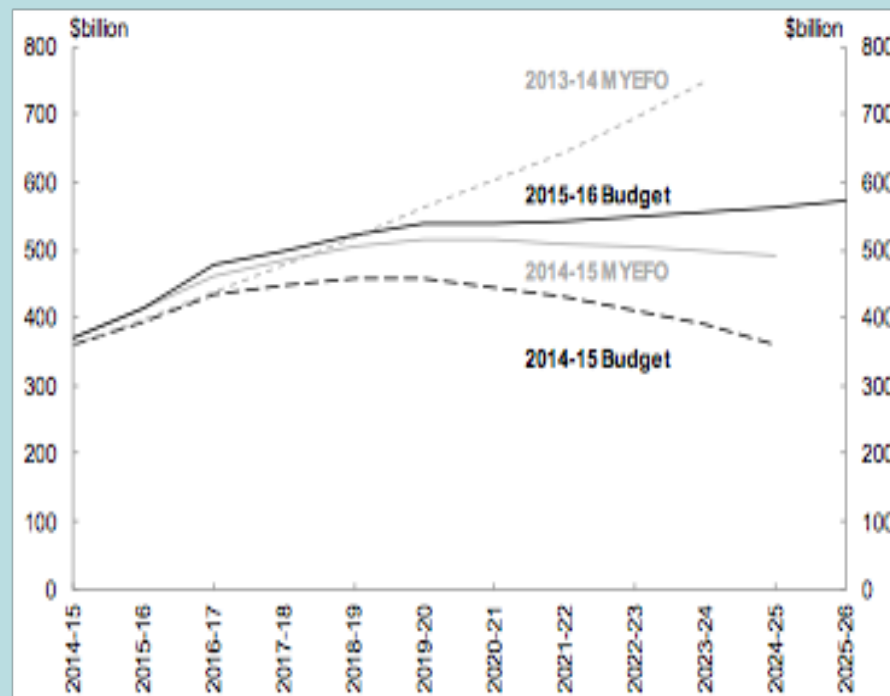
The underlying cash deficit is expected to be \$35.1 billion in 2015-16 (2.1 per cent of GDP). Forecast tax receipts have been downgraded by \$52 billion over the four years to 2017-18 since the 2014-15 Budget. This has been driven by a near halving of the iron ore price and persistently low wage growth. The fall in commodity prices has contributed to the largest fall in the terms of trade in over 50 years.

Source: Platts, published in the Australian 2015-16 Budget

# Australia 2015-16 Budget

## Debt Management Impact Increase in the Borrowing Requirement

Chart 1: Face value of CGS on issue projected to 2025-26



Note: A tax-to-GDP cap of 23.9 per cent is applied to these projections from 2020-21, except for the 2013-14 MYEFO where the tax cap applies from 2019-20. 2013-14 MYEFO projections were not originally published with a tax cap.

Source: Australian Office of Financial Management and Treasury projections.

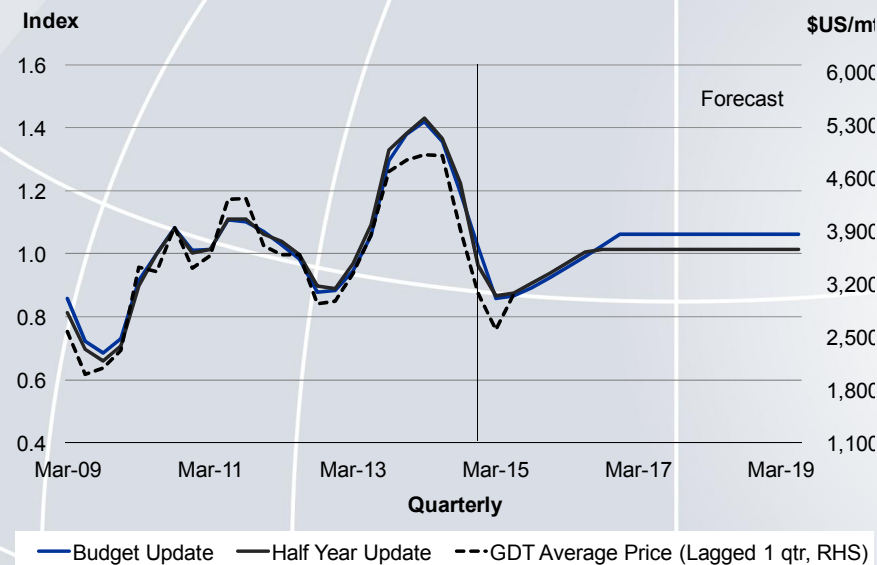
The face value of CGS on issue is projected to rise to **A\$573 billion** by 2025-26, reflecting a modestly weaker underlying cash balance, and its associated higher public debt interest expense, accumulating over the medium term.

The Australian Office of Financial Management (AOFM) has taken the opportunity to lengthen the CGS yield curve. This has provided for a lower risk profile of maturing debt and has been achieved during a period when borrowing costs have been low by historical standards.

# New Zealand and Global Dairy Price

Dairy export prices are forecast to recover from the second half of 2015 onward at a relatively modest pace (Figure 1.5). Demand for dairy products is expected to pick up as imports into China return to more normal levels. There could be a larger increase in global dairy demand if Russia returns to global markets. However, global inventories of dairy products are high, particularly in the EU, and there is considerable uncertainty over the supply response of EU producers following the removal of milk production quotas. Dairy prices are assumed to recover towards the long-term levels forecast by the OECD-FAO of around US\$3,900/mt towards the end of 2016 as supply and demand become more balanced.<sup>3</sup>

**Figure 1.5 – Dairy prices**



Sources: GlobalDairyTrade, Statistics New Zealand, the Treasury

# New Zealand 2015-16 Budget

## Scenario One – Lower Trough in the Terms of Trade

### *Greater weakness in commodity prices and low global inflation...*

In the first scenario, world prices for New Zealand's commodity exports fall to a lower level than in the central forecast. The potential key drivers of such a price fall include the impacts of a sharp slowdown in Chinese demand on other Asian economies and Australia. Alternatively, US monetary tightening may lead to falling asset prices, currency volatility and tighter credit conditions in emerging markets, which would also result in lower Asian demand. Finally, global supply of soft commodities may be larger than projected.

As a result of weaker commodity prices, global inflation remains low for a longer period. At the same time, low nominal interest rates hinder an effective response by central banks to lift demand. Even weaker global inflation flows through to lower import prices for New Zealand, partly offsetting the fall in export prices, but the goods terms of trade are lower than in the central forecast until June 2019 (Figure 3.1), when they recover to the same level.

**Figure 3.1** – Goods terms of trade (SNA)



Sources: Statistics New Zealand, the Treasury



# Impact on Malaysia (January 2015)

## Statement by the Prime Minister, 20 January 2015

- The government's 2015 budget, announced in October, was based on oil prices averaging \$100 a barrel but this projection was no longer realistic as global crude prices have dropped by over 50 percent. State oil company Petronas contributes about a third of Malaysian government revenue.
- The government lowered its oil price forecast to \$55 a barrel, which will lead to a revenue shortfall of 8.3 billion ringgit (US\$2.3 billion) despite savings from the removal of fuel subsidies last month.
- The economy is forecast to grow between **4.5 and 5.5 percent** this year, while the budget deficit is expected to equal **3.2 percent** of gross domestic product. Earlier, the government forecast the economy to expand **5-6 percent** and the budget deficit to narrow to **3 percent from 3.5 percent** in 2014.

# Conclusions

1. Most debt managers do not consider commodity prices or model commodity price risk
  - Colombia is one exception
2. Commodity prices are analyzed in the Budget and MTF, not directly but with impact on the parameters such as terms of trade, inflation and growth in GDP
  - Australia, Malaysia and New Zealand are such examples
3. Some countries hedge commodity prices
  - Mexico is one case using oil price options

# THANK YOU



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