Australian G-20 Secretariat Background Note
Prepared for the
Meeting of the Group of Twenty Finance Ministers and Central Bank Governors
Melbourne, 18-19 November 2006

Global Energy and Minerals Markets

Introduction

G-20 consideration of global energy and minerals markets reflects the importance of resource consumption, production, investment and trade to the world economy.

The outlook and macroeconomic consequences

The outlook for energy and minerals markets

Demand for energy and minerals commodities has grown strongly over recent years. This strong growth is forecast to continue over the next year or two on the back of above-average global economic growth and continued rapid industrialisation and urbanisation in many developing economies. Looking further forward, the aggregate level of demand for energy and minerals is set to rise significantly.

Over the period to 2030, the International Energy Agency (IEA) reference scenario—which assumes no policy change and prices remaining around long-run average levels—projects growth in global primary energy demand of 1.4 per cent per year, with contributions to growth across all energy sources and regions. At this rate, the world's energy requirements would be 25 per cent higher in 2015, and 50 per cent higher in 2030, than they are today.

A large part of the growth in demand for energy and minerals over recent years is a story of success—ongoing economic growth, industrialisation and urbanisation of developing economies have been associated with a growing intensity in the use of energy and minerals in investment and production. The growth also reflects a shift in the location of manufacturing from mature economies toward developing economies. Developing countries now account for some 50 per cent of refined metals consumption. The World Bank anticipates that continued growth and economic development will underpin strong growth in demand for minerals in years to come.

The expansion of energy and minerals supply has struggled to keep pace with the rapid growth in demand over recent years. Consequently, spare production capacity and inventories have been reduced to low levels. This in turn has been reflected in a significant increase in many prices and greater price sensitivity to unexpected production disruptions, natural disasters, and geopolitical events. Higher energy, labour and construction costs are lifting extraction and processing costs, underpinning higher commodity prices.

The future supply of energy and minerals requires significant investment to replace existing capacity and develop additional resources. In the oil and gas sectors alone, the IEA estimates a cumulative US$8 trillion in infrastructure investment will be needed by 2030 (around $320 billion each year), with 45 per cent of this in developing countries.

While significant investment is already underway in the minerals sector, still more investment will be needed if global supply is to keep pace with anticipated global demand. Delays in investment in either sector could keep prices higher for longer.

Importantly, the combination of strong broadly-based demand growth and the concentration of natural resource endowments in certain regions is inexorably raising dependence on cross-border trade in both energy and minerals.

Improving efficiency in energy and minerals production and consumption is another key element in ensuring sustainable economic growth, particularly in respect of the challenges posed by climate change. Further investment, development and transfer of technology, and strengthening of markets are essential components of an effective response to climate change.

Broad macroeconomic impact

To date, the impact of higher energy and minerals prices on overall global economic growth and inflation has been relatively muted, although the effects vary across countries. As output gaps continue to narrow, the macroeconomic challenges of tight energy and minerals markets could become greater.

Sound medium-term macroeconomic frameworks and strong domestic institutions are important to provide confidence that inflationary expectations can be managed and inflation contained. Flexible structural and exchange rate policies can provide a useful buffer against external shocks such as large price movements in traded goods.

Commodity price movements make fiscal management more challenging, by generating large swings in revenue in producer countries and raising the direct fiscal and opportunity costs of energy subsidies. Price uncertainty can undermine confidence in the sustainability of underlying fiscal balances and make judgments about the appropriate fiscal stance more difficult.

Ensuring that global energy and minerals markets function well is essential to achieving smooth and timely adjustments to changes in relative prices, and reduces the potential burden on macroeconomic policy. Delayed adjustment would involve a risk that higher prices for energy and minerals translate into generalised inflation pressures and require a sharper policy response.

Well-functioning markets

Well-functioning energy and minerals markets are critical to supporting sustained economic growth and development, and are an essential element in the policy mix for achieving global resource security objectives. Assessing developments and prospects in these markets is a practical application of the principles underlying the *G-20 Accord.*[1]

[1] The *G-20 Accord for Sustained Growth* highlights the importance of domestic and international competition, which occurs in well-functioning markets, as a driving force of economic growth and development. At a national level, the *G-20 Accord* advocates transparency, accountability, market-based reforms and structural flexibility. The *Accord* also details the G-20's aspiration for real progress toward multilateral (or multilaterally consistent) trade and investment liberalisation. The *Accord* is available at http://www.g20.org/Documents/2004_g20_accord_for_sustained_growth.pdf.

The G-20's interest in improving the operation of global energy and minerals markets rests on two propositions. First, significant investment is required to meet the likely significant increase in demand for energy and minerals. How can the G-20 support this investment? Second, the world is becoming increasingly dependent on cross-border energy and minerals investment and trade. How can the G-20 facilitate this cross-border activity? And what can be done to provide comfort to countries that resource security can be achieved through reliance on markets?

The G-20 is well-placed to better define the challenges, identify necessary policy responses, and generate momentum to address them. Under the broad topic of well-functioning markets, two core issues are proposed for discussion by Ministers and Governors in 2006: resource security and policies to improve the operation of global energy and minerals markets.

Resource security

Strong growth in energy and minerals demand and diminishing spare capacity have led to concerns about resource security. There are concerns about the ability of markets to deliver physical and price security and allow these risks to be managed. These concerns are increasingly reflected in national energy policies. Resource-importing countries, for example, tend to highlight the challenges around the security of supply, seeking greater self-sufficiency, efficiency, and less dependence on imports. Resource-exporting countries are concerned about predictable demand, exposure to volatile prices, and the need to diversify their economic base and develop non-resource sectors.

Trade dependence should not necessarily be equated with a lack of resource security. Trade dependence underscores the importance of energy and minerals markets functioning well—being open, transparent and deep.

The G-20 may be able to contribute to understanding the likely effectiveness, costs and risks associated with various resource-security strategies. While some countries may decide to pursue strategies to increase self-sufficiency or reduce import dependence, for many countries these strategies are likely to remain secondary to relying on trade on global markets.

Achieving resource security may be viewed as a portfolio optimisation problem—no single strategy can be relied on in isolation and diversification is likely to have benefits. National approaches will contain different combinations of market-based, contract-based, and investment-based trade.

Resource security is a shared global objective. There are varying perspectives to be brought to the table—from producers, consumers and industry. Creating an environment conducive to trade, investment and innovation remains the key.

Policies to improve the operation of global energy and minerals markets

The regulatory architecture supporting global energy and minerals markets can be addressed across two dimensions—domestic policies and international agreements. It is timely to consider the adequacy of the architecture and ways to advance reform and provide leadership on key international economic issues.

Domestic policies
Domestic policies and institutions influence the climate for investment, and technological change, and determine the operation and transparency of markets. Governments can take steps to reduce uncertainty and allow markets to better manage risks. Clear price signals, robust regulatory regimes, strong institutional structures, and good governance are elements of the optimal policy mix, agreed in the *G-20 Accord*.

Economic development requires an economic climate conducive to attracting capital for the sustainable development of national resources, and ensuring the fair spread of benefits to the broader community. Measures to reduce corruption and increase transparency of revenues and market data can be instrumental in developing countries attracting investment and enhancing prospects for sustainable growth.

Consumer price regulation and subsidies can weaken price signals and present considerable fiscal risks. This suggests possible merit in fiscal reforms to achieve clearer price signals, while protecting those most in need during the reform transition.

State-owned companies will continue to have a dominant role in the oil and gas sectors. There may be potential for a range of reforms to state-owned enterprises and national budgets to allow national energy companies to pursue commercial mandates at arms-length from government, to engage more closely with private partners, and to better harness their potential in global markets.

International agreements and frameworks
International agreements and frameworks can complement domestic policies in making global energy and minerals markets function more effectively. This is especially important given the increased dependence on cross-border trade and investment needed to satisfy growing demand and foster economic development.

G-20 members already support the Joint Oil Data Initiative (JODI). There may be potential to extend JODI to the gas sector and prescribe international comparability in energy reserves data. The Extractive Industries Transparency Initiative (EITI) is another example of an important existing framework aimed at improving governance and transparency that could be bolstered by the G-20 expressing its support.

Well-functioning markets require continued international cooperation to reduce trade barriers and make further progress in opening energy and minerals sectors to foreign investment. There is not consensus that relevant international frameworks, such as the Energy Charter Treaty, have fulfilled their potential.

Australian Treasury and Reserve Bank of Australia
November 2006