

**PRESS POINTS FOR CHAPTER 3:**  
***OIL SCARCITY, GROWTH, AND GLOBAL IMBALANCES***  
**World Economic Outlook, April 2011**

Prepared by Thomas Helbling (team leader), Joong Shik Kang, Michael Kumhof, Dirk Muir, Andrea Pescatori, and Shaun Roache

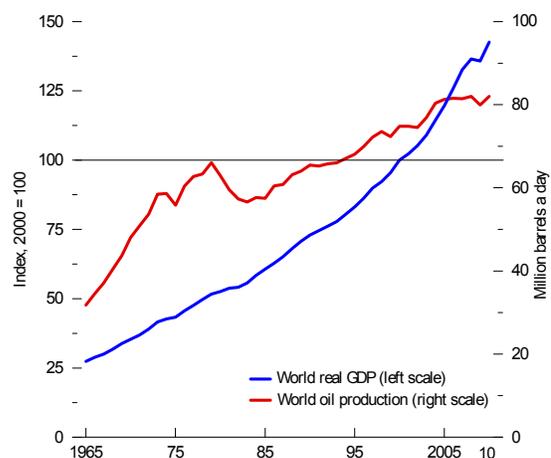
**Key Points**

- **Global oil markets are in a period of increased scarcity, reflecting rapid growth in oil demand in emerging economies and a downshift in oil supply growth.**
- **Gradual and moderate increases in oil scarcity—which seems to be the most likely scenario—would have a small impact on medium-term global economic growth. However, risks remain that scarcity or its growth impact could be more significant.**
- **A persistent adverse oil supply shock would imply a surge in global capital flows and a widening of current account imbalances.**
- **Policies should aim at facilitating adjustment to unexpected changes in oil scarcity and at lowering risks from larger-than-expected medium-term oil scarcity.**

**This chapter focuses on the risks from oil scarcity for the global economic outlook.** We analyze the current status of oil scarcity and assess the impact of oil scarcity on global economic growth and global imbalances in the medium to long term.

**The recent trend increase in oil prices suggests that the global oil market has entered a period of increased scarcity.** The origins of this scarcity can be traced to the tension between the upward shift in global oil consumption growth due to fast-growing emerging market economies and supply constraints, which have led to a downshift in oil supply growth. The latter partly reflects the drag from a growing share of maturing oil fields, which have raised both the production and the opportunity cost of bringing an additional barrel to the market.

**Global Oil Production and Real GDP**



Sources: BP, *Statistical Review of World Energy*; and IMF staff calculations.

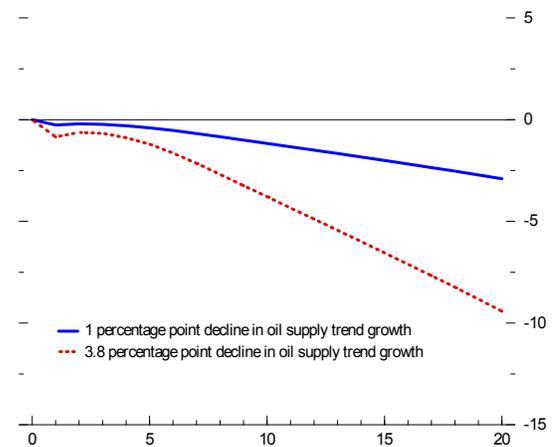
**Scarcity is reinforced by the low responsiveness of both oil demand and oil supply to price changes, especially in the short-to-medium term.** Nevertheless, the longer-term income elasticity of global demand for oil is below that of the demand for primary energy. This difference indicates that oil-saving efforts, technological change, and the move to more service-based economies have appreciable effects on the demand for oil.

**It would be premature to conclude that oil scarcity will inevitably be a strong constraint on global growth.** Our simulation analysis shows that gradual and moderate increases in oil scarcity, consistent with supply projections by others, may only be a minor constraint on global growth in the medium to long term. In particular, an unexpected sizable downshift in oil supply trend growth of 1 percentage point—from 1.8 percent to 0.8 percent—slows annual global growth by less than  $\frac{1}{4}$  percent in the medium and long term.

**However, such benign effects on global growth should not be taken for granted since scarcity or its growth effects could be more significant.** There are downside risks to supply, including from geopolitical risks, that imply that oil scarcity could be more severe and may materialize in large and abrupt changes. The growth effects would be correspondingly larger. In addition, it is uncertain whether the world economy can adjust as smoothly to increased scarcity as we assume, given redistribution and sectoral shifts. The growth effects could be larger, depending on the impact on productivity.

**Oil Scarcity and Global GDP Growth<sup>1</sup>**  
(Percent difference; years on x-axis)

A sizable downshift in oil supply trend growth of 1 percentage point slows annual global growth by less than 0.25 percent in the medium and long term. However, there are risks that scarcity or its growth impact could be more significant.



Source: IMF staff calculations.

<sup>1</sup>World: Total of all countries accounts for 78.78 percent of world GDP.

**A persistent adverse oil supply shock would imply a surge in global capital flows from oil exporters to importers and a widening of current account imbalances.** This underscores the need to reduce the risk associated with growing current account imbalances and large capital flows. Continued progress in financial sector reform is also critical, as the efficient intermediation of these flows is a prerequisite for financial stability.

**There are two broad areas for policy action to mitigate the impact of oil scarcity.** First, given the potential for unexpected large increases in the scarcity of oil, policymakers should review whether current policy frameworks facilitate the adjustment to such events: macroeconomic policies to ease adjustment in relative prices and resources and structural policies to strengthen the role of price signals would be desirable. Second, consideration should be given to policies aimed at lowering the risk of oil scarcity, including through the development of sustainable alternative sources of energy.

**PRESS POINTS FOR CHAPTER 4:**  
***INTERNATIONAL CAPITAL FLOWS: RELIABLE OR FICKLE?***  
**World Economic Outlook, April 2011**

**Prepared by**

John Bluedorn, Rupa Duttagupta (team leader), Jaime Guajardo, and Petia Topalova, with support from Angela Espiritu, Murad Omoev, Andy Salazar, and Jessie Yang

**Key Points**

**This chapter analyzes the nature of private cross-border capital flows and finds that:**

- **Net capital flows to emerging market economies recovered in a strikingly short span of time after the global crisis, but the rebound was more extraordinary in terms of its pace rather than the level capital flows reached.**
- **Net flows have become somewhat more volatile over time, and their persistence has generally been low.**
- **Net flows to emerging market economies tend to temporarily rise in periods of easy global financing conditions—i.e., when global interest rates are low and risk appetite high—and fall afterwards.**
- **Greater direct financial linkages with the United States entail a greater effect of U.S. interest rate changes on net capital flows. Economies with direct U.S. financial exposure experience a negative additional effect of U.S. monetary tightening on net flows, proportional to the size of their exposure. This additional effect is stronger when the U.S. rate hike is unanticipated and global financing conditions are easy.**

**Net capital flows to emerging market economies staged a strong comeback from mid-2009, although the rebound was more extraordinary in terms of its pace rather than the level net flows reached.** Even in those regions where net flows were very strong (e.g., Latin America, emerging Asia), the levels were comparable to the averages experienced in previous surges, such as before the Asian crisis (1991-97) and global financial crisis (2004-07), and did not exceed historical peaks.

**Net capital flows have become slightly more volatile over the last thirty years, and in general exhibit low persistence.** Net flows to emerging market economies are slightly more volatile than those to advanced economies. Debt-creating flows—such as bank and other private and portfolio debt—are somewhat more volatile and less persistent than others.

**Capital flows to emerging market economies appear to move in tandem with global financing conditions.** In particular, net flows to emerging market economies rise sharply in

periods of easy global financing conditions—when global interest rates and risk aversion are both low—and fall afterward. Net flows are also temporarily higher in emerging market economies when their growth performance is stronger than that in advanced economies. The rise and fall in capital flows is most prominently driven by bank and other private flows.

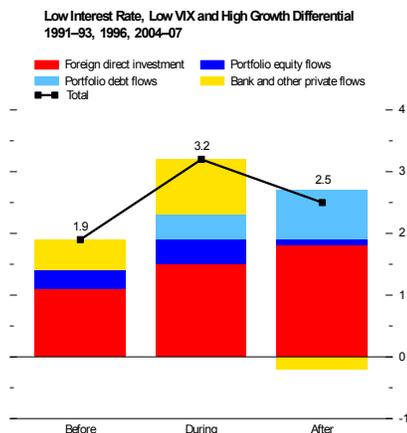
**Economies with direct financial exposures to the United States experience a negative additional effect in net capital inflows in response to U.S. monetary policy tightening compared with those with no such exposure.** Direct U.S. financial exposure is measured by the share of an economy’s U.S. assets and liabilities in total external assets and liabilities. For an economy with average direct U.S. financial exposure (16 percent), an unanticipated rise in the U.S. real interest rate by about 5 basis point causes a within-quarter ½ percentage point of GDP fall in net flows over and above what is experienced in an economy with no such exposure. This negative additional effect becomes larger over time. The effect is much smaller with the realized (or actual) rate rise (which may be partly or wholly anticipated).

**A number of factors influence the sensitivity of net flows to U.S. monetary tightening for directly financially exposed economies.** It increases with the level of direct U.S. financial exposure, and is stronger when global financing conditions (interest rates, risk appetite) are easy. However, this negative additional effect is smaller for directly financially exposed emerging market economies with relatively deep domestic financial markets and strong growth performance.

**Capital flow variability is likely to remain a fact of life for both emerging market and advanced economies.** The key is to ensure that such variability does not compromise economic growth and financial stability. As further discussed in Chapter 1, policymakers need to adopt the right mix of macroeconomic policies, prudential financial supervision, and macro-prudential measures to maintain strong growth in the face of variable capital flows.

**Net Private Capital Flows to Emerging Market Economies and Global Financing Conditions**  
(percent of GDP)

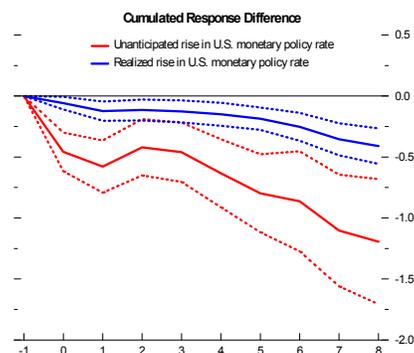
Net private capital flows to emerging market economies peaked during periods when three conditions prevailed: low global interest rates, low global risk aversion, and high growth differential between emerging market and advanced economies.



Sources: IMF, Balance of Payments Statistics; national sources; and IMF staff calculations.  
Note: The values for each bar correspond to the average across years for each multiyear period during which the condition prevailed, where the annual data are calculated as the sum of net capital flows across economies divided by the sum of nominal GDP (both in U.S. dollars) across the same group of economies. Periods of low global interest rates, low global risk aversion, and strong emerging market economy growth performance are defined as periods when the global real interest rate, risk aversion, and the growth differential between advanced economies and emerging market economies are lower than their median values over the entire 1980–2009 period.

**Difference in the Effect of U.S. Monetary Tightening on Net Private Capital Flows Across Economies**  
(percent of GDP)

An unanticipated U.S. monetary tightening has an immediate and statistically significant negative additional effect on net flows to economies that are directly financially exposed to the U.S. as compared to those that are not. The difference in response to a realized U.S. rate hike is much smaller.



Source: IMF staff calculations.  
Note: The x-axis shows the number of quarters after an impulse. Impulses at quarter zero are normalized to a 1 standard deviation unanticipated rate rise for the economy at the group's average financial exposure. The underlying impulse is indicated in the legend. Dashed lines indicate one standard error bands.