

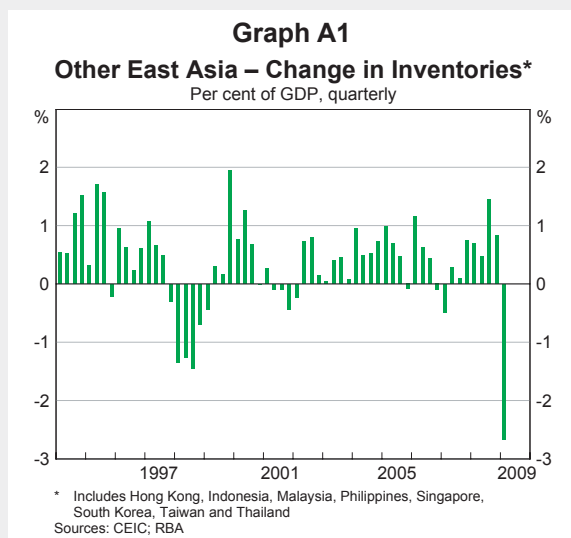
## Box A: Inventories and the Business Cycle

Historically, changes to the levels of inventories held by firms have played a significant role in economic cycles. As an economy goes into a downturn, the full extent of the slowdown in demand is generally unexpected, so firms do not adjust their production sufficiently quickly and, as a result, accumulate higher-than-desired levels of inventories. Elevated inventory levels then mean that, for a time, production has to be cut by more than the reduction in demand. Once this adjustment has been completed, production can increase to the new level of demand, providing a short-term boost to the pace of recovery.

Not surprisingly, the current global slowdown has been accompanied by a significant inventory cycle in many parts of the world. This cycle, however, appears to differ from previous cycles in the greater-than-normal speed with which firms were able to observe the fall in global demand. This reflects both the rapid dissemination of information by the electronic media, especially about financial market developments, and the synchronised nature of the fall in demand. Advances in inventory control techniques have also played a role, allowing firms to respond more quickly than in previous cycles. Another factor shaping the current inventory cycle has been the difficulty some firms have faced in obtaining finance for working capital – leading them to reduce their inventories of inputs to production, as a precautionary measure to conserve cash – as well as trade credit and insurance.

The cuts in inventories have been particularly rapid in east Asia, where a significant proportion of industrial production is accounted for by high-value or discretionary goods for which demand has fallen especially sharply (Graph A1). Taking the region as a whole (excluding

China and Japan), inventories had been rising modestly over the first half of 2008. Then, as global demand fell away rapidly through September and October, firms throughout the global production and distribution chain were faced with a significant increase in the stock of unsold goods. This quickly prompted large cuts in production, so that inventories were falling significantly by early 2009, with a decline equivalent to over 2½ percentage points of GDP in the March quarter. This decline was around twice as large as any of the quarterly falls during the Asian crisis, reflecting the compression



of the period over which the demand shock has occurred. In South Korea, stocks subtracted around 3 percentage points from GDP growth in both the December and March quarters, and a further 1¼ percentage points in the June quarter (Graph A2). In China, there is also evidence of a substantial run-down in stocks of both raw materials and finished industrial products in the latter part of 2008 and early 2009.

Among industrial countries, the United Kingdom has experienced a particularly large inventory cycle, with stocks running up well into 2008 but then recording the largest declines (in real terms) in more than five decades in the December and March quarters. Stocks have also subtracted heavily from growth in GDP in France. In the United States, inventories have been declining for some time, with the level falling below that seen at the start of 2006. Despite this, the stocks-to-sales ratio has increased significantly in the industrial sector. Australia too has seen recent rapid falls in inventories, with stocks estimated to have subtracted 1.4 percentage points from GDP growth over the December and March quarters.

While the extent of inventory adjustment varies across countries, in aggregate, much of the detraction from growth due to global de-stocking seems now to have taken place, with inventories likely to make a positive contribution to growth in many countries over the next few quarters. Recent survey data for the manufacturing sector suggest that the pace of decline in stocks of inputs to production has generally stabilised, while the fall in new orders looks to be coming to an end (Graph A3). Corresponding data on manufacturers' stocks of finished goods for a range of countries also indicate a stabilisation or easing in the rate at which these are being run down. ✎

