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Why Has Japan Been Hit So Hard by the Global Recession?

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¹ The views expressed herein are those of the author and should not be attributed to the IMF, its Executive Board, or its management.

EXECUTIVE SUMMARY

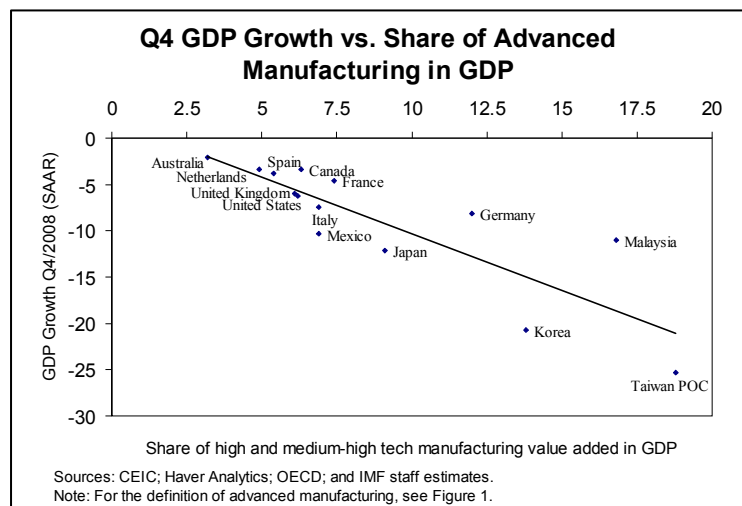
The Japanese economy has been hit hard by the slump in global demand for advanced manufacturing products such as cars, information technology, and machinery, which account for a larger share of production than in other G-7 economies. Worsening domestic financial conditions deepened the current recession by reducing domestic demand, especially business investment. The short-term outlook is further clouded by the needed adjustment to inventories, which have accumulated well above normal levels in both Japan and its export markets.

I. INTERPRETATION OF THE Q4 OUTTURN

Japan's production and exports have collapsed in recent months. Real GDP fell by 12.1 percent SAAR in Q4/2008, with net exports contributing about 10 percentage points to this decline. Japan's performance was the worst among the G-7 countries, although the output drop was even deeper in the newly industrialized economies (NIEs) such as Korea and Taiwan Province of China (Figure 1A). Export and industrial production data for January indicate further declines.

Most of the drop in Japan's exports was caused by a sharp retrenchment in overseas demand for motor vehicles, information technology (IT), and capital goods (Figure 1B), as firms and consumers cut their investment and durable goods spending in response to the global credit crunch² and extraordinary uncertainties about the outlook. In particular, data on motor vehicle registrations point to a collapse of car sales in a number of economies (Figure 1C). As a result, Japan's car exports fell by 65 percent since September 2008, with shipments to the United States plunging almost 75 percent (Figure 1D).

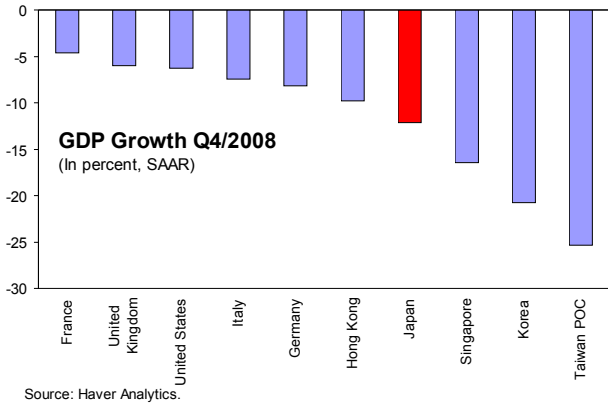
The comparison of Q4 GDP outturns among selected countries suggests that economies with a greater share of advanced manufacturing such as IT goods and autos in GDP have tended to experience sharper output declines than their peers (see also Figure 1E). Japan's woes were further exacerbated by its large



² The shock to the commercial paper and other short-term funding markets after the collapse of Lehman Brothers may have made corporations less willing to invest, while the lower availability of consumer credit, in particular car loans, may have discouraged some purchases.

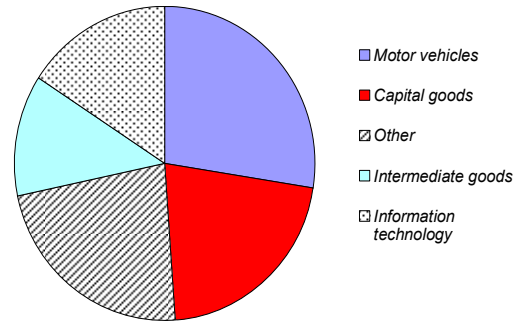
Figure 1. Japan: Dissecting the Q4 Export Collapse

A. Japan's GDP collapsed in Q4/2008 ...

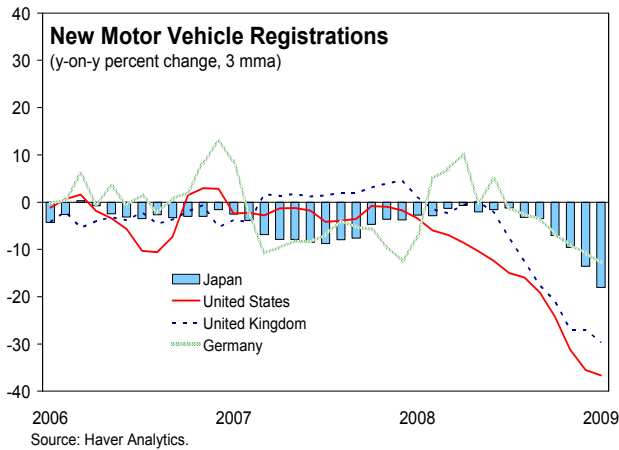


B. ... as exports of motor vehicles, information technology, and capital goods fell sharply.

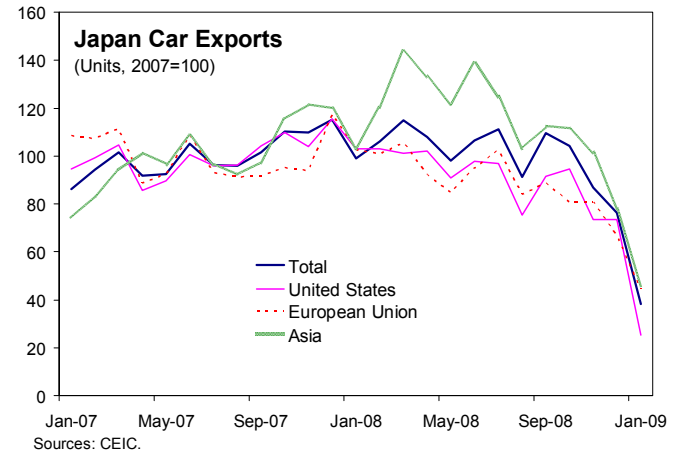
Contribution to Q4 Export Decline By Product Type



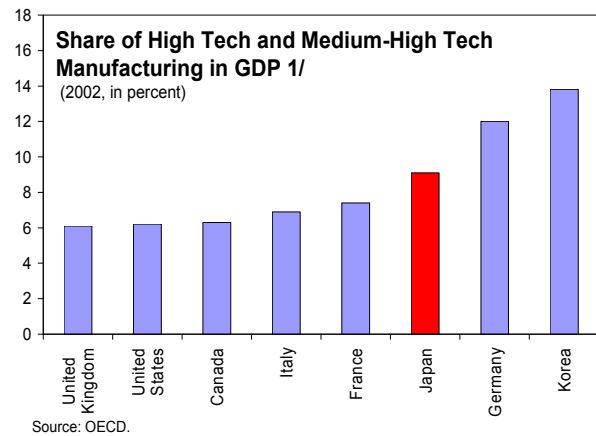
C. The decline in spending on motor vehicles is apparent in many major economies ...



D. ... with Japan's car exports falling by two-thirds since September.

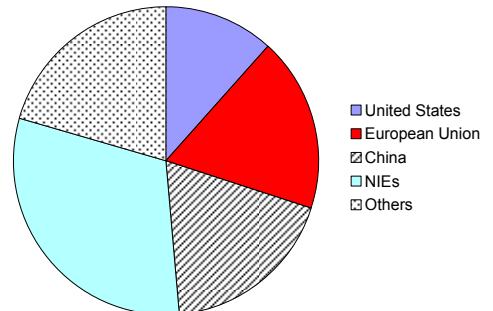


E. Japan and the NIEs have a relatively large share of advanced manufacturing in their GDP ...



F. ... which has amplified—together with exchange rate effects—Japan's downturn during the current global recession.

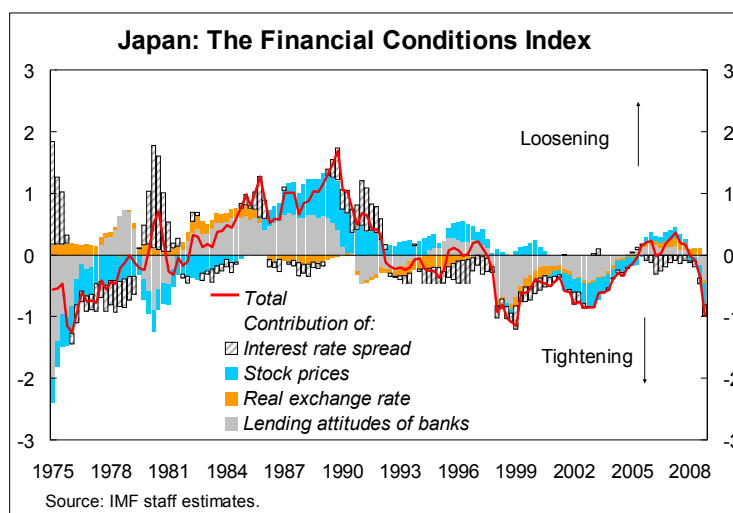
Contribution to Q4 Export Decline By Region



1/ The classification of advanced manufacturing sectors follows the OECD methodology: the high tech sectors are identified as computers, audio-visual and communications equipment, precision instruments, aircraft, and pharmaceuticals; the medium high-tech sectors are transport equipment, machinery, and chemicals.

trade exposure to emerging Asia, especially the NIEs (Figure 1F), in which growth has slowed sharply—for all the same reasons as in Japan. In addition, the yen has appreciated by about 30 percent in real effective terms since August (notably, the Korean won depreciated by about 60 percent against the yen over this period). More broadly, the export component of Japanese manufacturing exports is unusually high (and the import component is unusually low), which makes the manufacturing value added and net exports very sensitive to global demand shocks.³

Worsening financial conditions also contributed to the poor Q4 GDP outturn by weakening Japan's domestic demand, especially business investment. Stricter lending standards, together with high interest rate spreads and significant stock market declines, have tightened financial conditions to levels last seen during the banking crisis of the 1990s.



II. IMPLICATIONS OF INVENTORY ADJUSTMENT

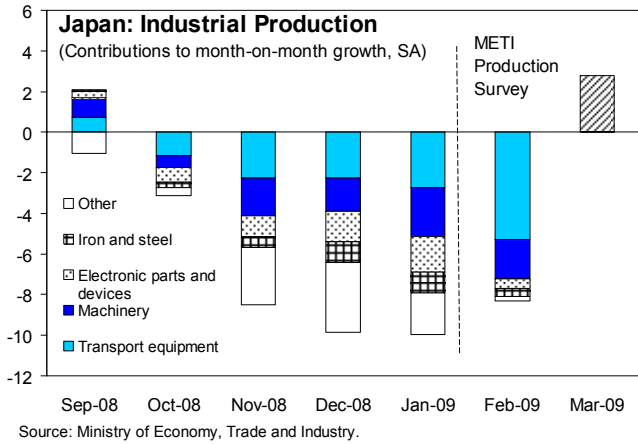
Production is likely to continue plunging during Q1/2009. The January data point to a further sharp drop in industrial output (by 10 percent m-o-m) and exports (16 percent m-o-m) bringing the total output loss to almost 30 percent since September. Another 8 percent m-o-m decline in industrial production is expected for February, although the Ministry of Economy, Trade, and Industry (METI) production survey envisages a roughly 3 percent production increase in March (Figure 2A).

The ongoing inventory adjustment, however, presents a downside risk to this scenario. The drop-off in shipments has been so severe that domestic inventories have been rising despite drastic production cuts, especially in the IT sector (Figures 2B and 2C). While producers in most sectors began reducing their inventory holdings in January, the inventory target may be well below the pre-crisis levels since shipments are unlikely to recover anytime soon and many manufacturers need to boost their cash balances as working capital finances remain tight. Corporations are therefore likely to continue reducing inventories in the coming

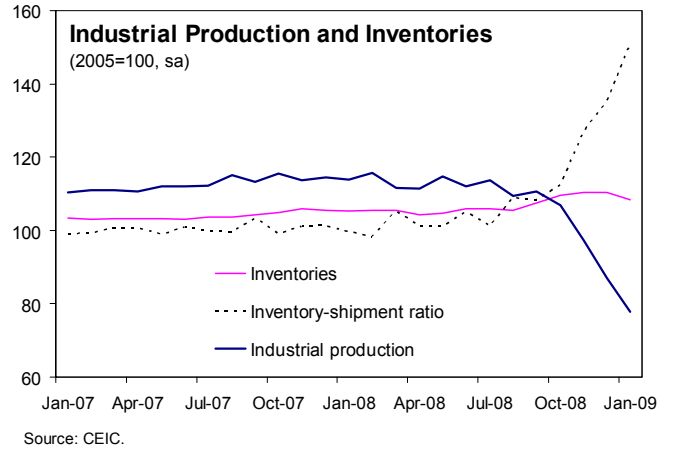
³ Japan exports about 60 percent of its vehicle production, compared with 20 percent in the United States. Moreover, the ratio of imports in total manufacturing supply (defined as gross output and imports) is only about 10 percent in Japan, compared with roughly 25 percent in the United States—see Bank of Japan's February *Monthly Report of Recent Economic and Financial Developments*.

Figure 2. Japan: Inventory Adjustment Poses a Downside Risk To Growth

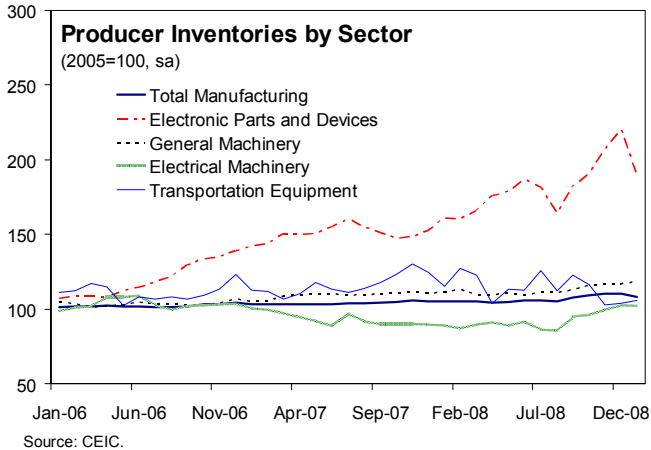
A. The METI survey predicts another sharp IP decline in February, followed by a small increase in March.



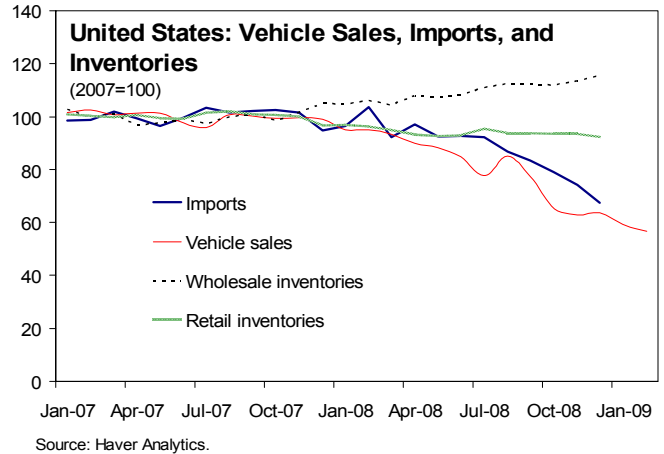
B. However, inventories have been rising despite a sharp drop in production, pushing up the inventory-shipment ratio ...



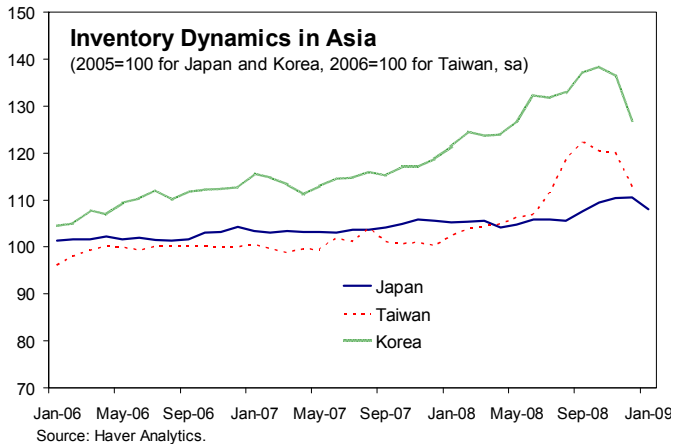
C. ... with the inventory buildup being particularly strong in the IT sector.



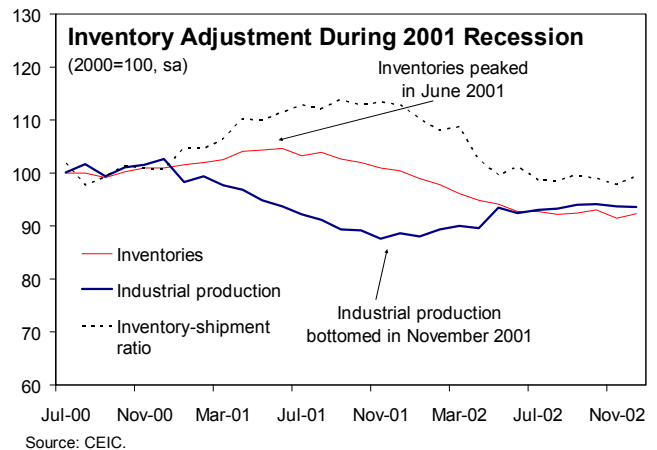
D. The glut of unsold goods overseas ...



E. ... as well as elsewhere in Asia poses a downside risk to Japan's growth.



F. During the 2001 recession, industrial production bottomed out 5 months after inventories peaked.



months to bring down their inventory-shipment ratios, with negative implications for production. From this perspective, the METI production survey results for February and March could prove optimistic since the survey implies a relatively small production cut in the electronics industry where the buildup of inventories has been most significant.

Inventories built up in export markets are adding to the downward pressure on production. Indeed, export demand could continue falling for some time as overseas wholesalers and retailers work off their own elevated inventory levels. Data on U.S. inventories of motor vehicles available through December 2008 point to a glut of cars at both wholesale and retail levels (Figure 2D). Indeed, the January shipments of Japanese cars to the United States turned out to be particularly weak. Given the evidence of inventory buildups in other export destinations (Figure 2E), the overseas inventory adjustment poses a short-term downside risk unless final demand recovers quickly.

III. CONCLUSION

When will the production and inventory adjustment be over? During the 2001 recession, industrial production started recovering about 5 months after the peak of the inventory cycle (Figure 2F). By analogy, one could expect a bottom in industrial production around May 2009. However, since the global environment is expected to remain weak⁴ and the Japanese economy faces headwinds from tight domestic financial conditions, the production adjustment could take longer during this recession.

⁴ See the January Update of *World Economic Outlook*.