Box VI-1

Productivity development and employment growth

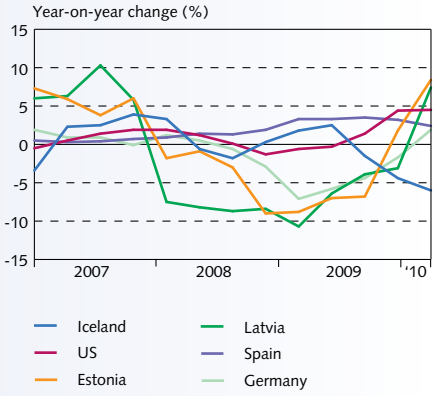
Productivity development in OECD countries

In the current financial crisis, labour productivity, whether examined as productivity per hour worked or productivity per worker, has developed in differing ways in the OECD countries, and the divergence is considerably greater than in previous recessions (see, for example, OECD, 2010). The US and Germany are interesting examples in this context, as productivity has developed quite differently in Germany than in the US. Even though output has contracted more sharply in Germany than in the US, employment has increased (and the number of hours worked has decreased) in Germany, whereas it has declined significantly in the US. The difference between developments in employment and output in the two countries is sufficient for output per worker to have risen in the US but fallen in Germany. In Japan and most of mainland Europe, the trend has been similar to that in Germany, whereas developments in Spain more closely resemble those in the US (Chart 1).

The difference in employment development is probably due to differences in labour market institutions, with factors such as employment protection and the degree of collective bargaining making an impact. Government prioritisation also plays a role. Many European countries have encouraged employment retention, and their governments have offered a variety of measures to that end; for example, subsidising part-time employment in order to keep the level of employment higher (see, for example, International Monetary Fund, 2009b). It is important that short-term working schemes be designed properly so that workers do not become locked into sectors and jobs with no future. Otherwise, unemployment could turn out to be higher once recovery has taken hold, and there could be more likelihood of a jobless recovery.

The difference in labour market adjustment in the OECD cannot be explained by differing institutional framework alone, however. Labour market adjustment is probably not equally rapid in all countries. The fact that the reduction in the number of jobs has been considerably greater and speedier in countries experiencing a sharp decline in house prices (such as the US and Spain) than in countries that were affected by the global contraction in trade (such as Germany) reflects this. Experience shows that the construction industry has been more flexible than most other sectors (OECD, 2010). In the current crisis, the decline in the number of construction industry employees outpaced the contraction in output, generating productivity growth in countries that experienced a construction boom during the upswing. This is not true of all countries, however. For example, productivity has declined in Estonia and Latvia, probably because the contraction in GDP was so strong and sudden that even a substantial downturn in employment was insufficient to offset the drop in output.

Chart 1
Productivity development in an international perspective
Q1/2007 - Q1/2010



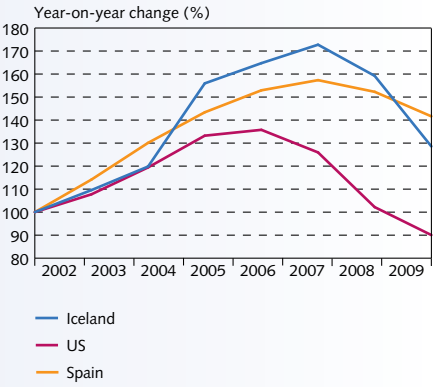
Source: International Financial Statistics (IFS).

Productivity development in Iceland

Productivity declined somewhat in Iceland in the run-up to the crisis. For a long period of time there had been significant excess demand for labour, which probably resulted in the recruitment of less experienced workers; furthermore, there was considerable movement in the labour force. Both of these factors doubtless reduced productivity. In 2008, productivity contracted markedly, perhaps because the Kárahnjúkar construction project more or less came to an end in 2007 (Chart 1).[1]

Productivity grew somewhat after the collapse of the banks, however. The number of employed persons dropped sharply, and the total number of hours worked fell even further. Both variables contracted more than output. As in the US and Spain, it can be assumed that the ensuing collapse of the real estate market and the construction sector played an important role in how quickly the number of employed persons fell. The year after the crisis struck, the number of workers employed in the construction industry dropped by over 6,000, which was over half of the decline in employed persons, even though construction workers accounted for only a scant 3.5% of employed persons before the crash (Chart 3). Furthermore, some corporate restructuring took place after the crisis struck, and this probably involved redundancies. Work time was reduced as well, and the number of part-time employed increased.[2]

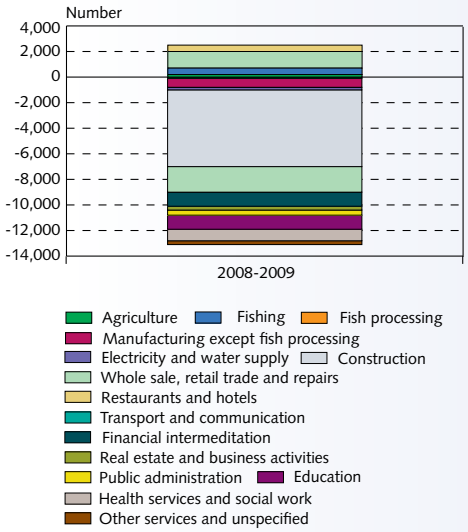
Chart 2
Real house prices 2002-2009



Sources: Bank of Spain, International Financial Statistics (IFS), OECD, Registers Iceland.

1. A large number of foreign nationals had come to Iceland to work on the aluminium smelter/power station construction project at Kárahnjúkar. Repatriation of foreign nationals appears in Statistics Iceland figures with a time lag, but a large reduction in foreign workers could show up as a contraction in measured productivity.
2. Temporary amendments made to unemployment legislation in November 2008 were intended to make it easier for wage earners and the self-employed to receive unemployment benefits while employed part-time. These amendments remained in force until 1 May 2009.

Chart 3
Change in employment by sector 2008-2009



Source: Statistics Iceland.

Since mid-2009, however, measured productivity has contracted once again, due in part, perhaps, to the slow pace of corporate restructuring. For example, 40% of construction industry executives expect to lay off staff in the next six months, even though the number of people working in the sector has contracted steeply in the past year.[3] It is also possible that the contraction in productivity according to current data will change upon revision of national accounts figures, as data errors are more likely in the current climate (see Section IV). Moreover, it appears that the measured increase in the number of employed in Q2 is attributable to a sampling error (see Section VI).

Jobless recovery?

Recessions associated with a real estate market collapse and systemic financial crisis, such as that in Iceland, generally lead to a steep contraction in GDP, followed by a slow recovery and a gradual rise in the number of jobs (see, for example, International Monetary Fund 2009a). Studies show also that productivity development in a downturn can give an indication of the increase in jobs once recovery begins. Economies where labour hoarding is significant enough to lead to a marked contraction in productivity are more likely to experience output growth without new job creation, or jobless recovery. Other studies indicate that the number of jobs will not rise until investment has begun to recover (Zoega, 2010).

If current experience from other countries and past experience from previous financial crises are any indicator of future developments, the number of jobs will probably increase slowly after recovery has set in. In Iceland, hours worked have contracted more than the number of jobs. As a result, there should be considerable scope to increase output without hiring new workers. According to the OECD (2010), in Germany, where the adjustment took place primarily through shortened working hours, GDP could grow by 8% without an increase in employment, while in the US, where the adjustment featured a reduction in jobs, GDP could only rise by 1½% without a rise in the number of jobs. Similarly, in Iceland GDP could rise by just over 3% without an increase in the number of jobs.

The baseline forecast in this *Monetary Bulletin* assumes that recovery began in Iceland in Q3/2010, but that labour market adjustment is still underway. Unemployment can be expected to rise still further, peaking early in 2011. Furthermore, employment is not forecast to increase until mid-2011, about one year after output starts to grow, which is consistent with the experience of other countries following a financial crisis. In the first year after employment begins to increase, the forecast is for just under 3% GDP growth but just over 1% growth in employment. If this forecast materialises, productivity will rise considerably. At the end of the forecast horizon, however, the number of employed persons will still be about 5 percentage points lower than in 2006-2008, at the height of the upswing.

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3. The September 2010 Capacent Gallup survey of Iceland's 400 largest firms.