Analysis

Several reasons behind weak labour productivity

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Labour productivity growth has remained poor despite a roaring economy, when compared with past booms. Over the past year especially, labour productivity growth, or growth in value added per hour worked, has weakened all the while the Finnish economy has peaked in its cyclical expansion. Weak productivity growth is being under-pinned both by structural changes in the economy — such as the decline and restructuring of industries — and by diminishing productivity growth within industries themselves. Another cause for the weak productivity developments of late is the exceptionally rapid increase in employment. Even though some of the deceleration is cyclical, productivity growth will remain permanently subdued compared with its levels before the financial crisis.

Labour productivity is measured as value added per hour worked. In recent years, labour productivity growth has slowed. A decomposition of industry-specific contributions to aggregate productivity growth reveals that manufacturing's reinvigorating effect on productivity began much later than in previous upswings (Chart 1). It also appears that manufacturing's relative contribution to productivity growth might be less than before. Meanwhile, trade's share of Finland's aggregate productivity growth has continued to increase since 2015. Trade's share has

grown in relative terms and in part reflects the decreased role of manufacturing. The information and communication industry contributed to a surge in productivity growth in 2016–2017 but has since then weighed on its development. After the financial crisis, the impact of other industries has been largely negative. In recent years, productivity has decreased, especially in public administration, education, social and health services and in real estate.

Chart 1.

Weak productivity growth may partly be explained by Finland's transition into a service economy and the associated decline in manufacturing. This is a well-established trend in the advanced economies, but since the financial crisis, services have become even more prominent. In addition to the long-term transition towards a service economy, their significance may have been boosted by an upswing underpinned by domestic demand. A period of low interest rates has accelerated the growth of domestic demand, i.e. private consumption and investment. This, in turn, has limited the relative significance of foreign trade to the upswing. Change in the sectoral composition of the economy, however, is not enough to explain the decline in productivity growth in its entirety. Even within individual industries, productivity growth has failed to reach pre-crisis levels in spite of the economy's rise from recession.

The decreased role of manufacturing in generating productivity growth is a result not only of the proportional decline of the sector as a whole, but also of the decline of many of its most productive industries. ICT manufacturing, or the electronics and electrotechnical industry, in particular, has

had a considerable impact on productivity growth. From 1999 through 2007, ICT manufacturing alone produced half of the average annual productivity growth in the Finnish aggregate economy, even though the industry employed less than 3% of the total workforce (Table 1). But since 2008, ICT manufacturing has considerably slowed the productivity growth of the economy. This is due to both a slowing down of productivity growth within the industry itself, as well as the reduced size of the industry relative to other constituents of manufacturing as measured by persons employed (Table 1). Out of these two factors, the former has had a more profound impact.

ICT manufacturing is also an important export industry. The industry's rapid productivity growth that preceded the financial crisis lowered production costs, consequently lowering export prices. On the other hand, the rapid price drop also eroded the total worth of exports of ICT goods. Since 2008, productivity growth has decreased notably, which has raised production costs in ICT manufacturing. This, in turn, has raised export prices and weakened the sector's competitiveness in relation to Finland's competitors. ICT manufacturing's weak productivity growth has depressed the growth rate of Finnish total exports in the years after the financial crisis, but the stabilisation of export prices has bolstered exports value growth.

Table 1.

ICT manufacturing's share of the economy has decreased			
	1999–2007	2008–2011	2012–2017
ICT manufacturing's share of GDP (%)	7.4	5.4	3.1
ICT manufacturing's share of total labour force (%)	2.5	2.1	1.7
ICT manufacturing's annual labour productivity growth (%)	15.9	–3.3	4.0
Annual labour productivity growth, aggregate economy (%)	2.1	–0.9	0.1
ICT manufacturing's contribution to aggregate productivity growth (percentage points)	1.0	–0.5	–0.1
Of which contribution of industry-level productivity growth (perdentage points)	1.1	–0.2	0.0

ICT manufacturing's share of the economy has decreased			
Of which contribution of decline in industry size* (percentage points)	−0.1	−0.3	−0.1

*Change in ICT manufacturing's share of the labour force.
Sources: Statistics Finland and calculations by the Bank of Finland.

Recent studies of the Finnish economy demonstrate both the shift to services in the economy and an industry-level slowing of productivity growth.[1] Neither of these suggests that waning productivity growth is merely cyclical, but rather that some of it stems from structural changes in the economy. There are a lot of companies in Finland with relatively low levels of productivity, while highly productive firms are only few in number. In most industries of the Finnish economy, not even the best companies are able to attain high productivity growth (see section titled Divergence of productivity growth in Finnish companies).

In addition to the aforementioned factors, the almost surprising waning of productivity growth may have been influenced by the recent rapid improvement of employment. This may have been motivated by structural labour market reforms, which have lowered the costs of labour while bolstering both its supply and demand. Meanwhile, capital as a factor of production has become more expensive relative to labour, and the capital base has yet to adapt to the rapidly improved employment situation. Therefore, short-term productivity growth will remain slow, as companies have less capital per employee.

The exceptionally swift rise in employment growth will remain temporary: in the years ahead, the effects of the structural reforms will dissipate, and the moderation of economic growth and decline of the working-age population will also weigh on employment. (See Economic growth has passed its cyclical peak, paragraph "Structural unemployment remains high"). Productivity growth, for its part, is expected to slightly pick up over the long term. However, it will not return to its pre-crisis pace, as it is being weighed down by the structures of the economy.[2]

Notes

1. Vanhala, Virén & Nurmi (2018): Are weakly profitable firms suppressing economic growth? and Pohjola (2017): Suomen talouskasvu ja sen lähteet 1860–2015, Kansantaloudellinen aikakauskirja 3/2017. ↑
2. Finland's long-term economic outlook. ↑

Keywords

ICT-manufacturing, productivity growth, service economy, structural change