

Sources of labour productivity growth in Belgium

What sustains labour productivity growth in Belgium? The EUKLEMS database of the Federal Planning Bureau provides an answer to this question.

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Contributions to labour productivity growth: capital, labour composition and technical progress

Using growth accounting, the labour productivity growth rate of the economy can be decomposed into four contributions:

- the labour composition effect: a change in the characteristics of workers (skills, gender, age) has an impact on productivity,
- Capital deepening in tangible assets (tangible capital per hour worked): the increase in invested capital or the installation of new equipment or machinery per hour worked enhances the productivity of workers,
- capital deepening in intangible assets such as R&D or software (intangible capital per hour worked),
- total factor productivity (TFP) which includes organisational and process innovations in a broad sense.

Over the 2000-2019 period, labour productivity growth is explained almost equally by the four components. The increase in total (tangible and intangible components) capital per hour worked has thus supported productivity growth more than innovation or changes in worker characteristics.

This long period can be decomposed into two distinct sub-periods separated by the economic and financial crisis of 2008. Before the crisis, innovation as measured by TFP was a key driver of labour productivity growth. The latter was also supported by the increase in capital and in particular tangible capital per hour worked (buildings, equipment, infrastructure).

Slowdown in productivity growth: decrease in the contribution of innovation and tangible capital

The strong decline in the growth rate of labour productivity after the crisis can be explained by the sharp reduction in the contribution of TFP (divided by 3.5) and capital deepening in tangible assets (divided by 3). Capital deepening in intangible assets also reduced its contribution to productivity growth but to a much lesser extent. The contribution of R&D assets per hour worked increases even after the crisis, but this was offset by the decline in the contribution of software investment per hour worked.

