This study aims to provide some empirical explanations for the gaps in ICT diffusion between industrialized countries, especially European countries vis-à-vis the United States. The panel data cover eleven OECD countries: Austria, Denmark, Finland, France, Germany, Italy, Japan, the Netherlands, Spain, the United Kingdom and the United States. These annual macroeconomic data span the 1981-2005 period.

The analysis provides some original results:

(i) The impact on ICT diffusion of the level of education and market rigidities has changed over time. The correlation of ICT diffusion, positive with the level of education and negative with market rigidities, increased over time (in absolute terms) until the middle of the 1990s;

(ii) In each country, the estimates show a decrease over time of the price-elasticity of demand for ICT (in absolute terms). More precisely, the elasticity of substitution of ICT vis-à-vis all production factors are close to or greater than 2 at the beginning of the 1980s and close to 1 in the middle of the 2000s;

(iii) The estimates confirm the positive impact of the share of the population with a higher education and the negative impact of market rigidities on ICT diffusion. These effects are heightened when ICT diffusion is already substantial.

JEL classification: E22, O47, O57, R24

Keywords: ICT, investment, factor demand, productivity