

Free research paper on impact of ict on french gdp

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Executive summary

Information and communication technology (ICT) is regarded as a very important factor in economic growth. This paper will strive to answer two questions that regard ICT: what is the effect of ICT in the GDP of French? How is the diffusion of ICT in French and has it impacted economic growth? There will be a distinction between the three ICT equipment which are hardware, software and communication equipment used. There are three well known problems which we will face in our estimates of ICT spending which is the estimate of the flows of investment; breakdown of expenditure on investment; estimates on capital stocks in the basis of flows of investments. These are serious problems because there are no statistics as regards computer use and equipment and also because of the fast improvement of capital goods of ICT. In our statistics, it is shown that the contribution of ICT to French ICT averages 0. 2% each year from the year 1979 – 2009. This contribution can be summarized as follows: it amounts to approximately half in computer hardware, a fourth in computer software and another fourth in telecommunications. In particular, the expenditure of ICT has grown to reach 0. 3% and is becoming an important contributor to the GDP of France even beyond other hardware in the economy.

Introduction

The impact that information and communication technologies to the GDP of France are of the order 0. 2 to 0. 3 per year for a period from 1979 – 20009. It was predicted that there would be a significant increasing from the 1990s given the fact that there was a boom in internet and web-based information

systems. It indeed, increased in this second quarter as it was twice as high in the service industry compared to the industry. It was found out that total productivity factor (TFP) was higher in activities which were related to ICT than those of users in the activities. The assessment of this paper will be quantitative and will assess the contribution of ICT on economic growth. Information and communication technology (ICT) has grown to be a very important engine in economic growth of any given country. This can be seen in the case of the United State's buoyant growth of ICT and how this has been a very important contributor of the US economy. This is so even though the cause and effect issues have not been fully understood. There are several questions that have been raised concerning this due to the fact that it is far from being understood. In this case, we will refer to a more succinct example which is prevalent and applicable to any central bank. For sure, the impact of ICT on growth is largely connected to the impact it has on production of production factors. These effects may be seen to change and alter the rate of growth; this is to say that it affects the development of sustainable growth when the inflationary pressure is kept the same. The paper will not cover these issues exhaustively although it will cover quite a good percentage of it. This paper has opted for an approach which is more targeted.

The GDP growth in the US and Europe saw a sharp decline due to the slow adoption of ICT companies regarded to be strong in their operations. At first glance, it may look like paradoxical to analyze the relationship that exists between GDP, productivity and ICT. This paradox is clear and apparent as it can be contributed to the slow demand of ICT by companies. The slow

adoption can also be attributed to the slow acceleration pace of the adoption because of the fear of the bug that was said it would come up in the year 2000.

The diffusion of ICT in the French economy

It is first important to analyze the difference between two possible roles of ICT in the economy which are 1) its spread and the application in all industries, and 2) the enhancement and the development of industries that develop ICT products and services. The study will dwell on the first aspect. In the second aspect, research shows that when French and US ICT are compared, French ICT industry has a representation of the productivity activity, measured in percentage that is relatively low in for computer equipment which can almost be compared to IT services; this has small part which is located closely to users. In terms of telecommunication equipment and services, France is known to have attained a higher rating and is up in performance.

Although that is the case, the fact that ICT has a representation of small share of productive sector in any given country has no implication that there are economic benefits that the country will achieve with the use of the said technologies. The country may import the said goods and services without having to manufacture them. This significant point has been questioned from time to time. This is because the country has been shown to lead in the production of ICT which may gain from this position; this is not only in terms of employment or investments which are direct but also by way of spillover effects. These spillover effects are attributed to the fact France leads in

technological innovations and has competitive advantage over the countries and also due to the fact that it has a faster adaptation of equipment according to the requirements of the users.

Generally, the diffusion of ICT is measured using various yardsticks like the percentage of employees who are working on ICT equipment in businesses. However, these indicators are not reliable when there is need to evaluate the relationship that exists between ICT and GDP. When this is the case, there is the need to measure ICT capital goods like the productivity factor using investment and accumulated stock of capital. When this is the case, there are problems that we face which are 1) getting to measure the investment, 2) making decompositions of the equipment, and 3) making estimates on capital stocks using the basis of investment flows. This is serious when it comes to ICT because there were no statistics present to measure them. This is because the performance of equipment has revolutionized very fast. At this point, there will be no need to give the details of the problems that are encountered and the way statisticians and national financial accountants are striving tooth and nail to solve them. The paper will make some brief descriptions of these problems.

The first challenge/problem is that of getting to measure the value of ICT equipment that has been invested and also clearly defining the boundaries with other types of investments. It is difficult because ICT investment is also invested in other sectors and it is hard to measure whether this investment contributes to those sectors or they contribute to the ICT sector. In this paper, we shall consider investment in all types of investment regarding ICT,

which include investment in all hardware and all investment in software. This investment is poorly known as the line between investment in ICT and in other sectors is much blurred.

Another problem is that of software; software is integrated into a computer but it is not isolated from use on other applications like use in accounting purposes. The expenditure that is incurred in this case will be added to that of equipment. From this, it is clear that it is hard to implement a separate expense of the software used in one industry while at the same time claiming that it is an ICT investment. There are three types of software that we are supposed to get a clear distinction too. These are software which is pre-packaged, software which has its own account, and custom software which has been tailored to fit given software. It is hard to get a clear expenditure on the last two categories; those are the in-house software or improvement software.

Another problem is that computer hardware costs are associated with computer equipment which are physical and does not include the equipment and the hardware which are integrated to other equipment and objects like robots. The costs that are associated with these devices are taken to be costs on the host devices and are not taken to be costs for computer departments.

In France, taking the whole economy, the ICT share in the total investment value without including buildings went up from approximately 18% in 1999 to 24% in the year 2009. This translates to approximately 1.8% in GDP in

1999 to approximately 2.3% in 2009. From the three components that have been identified before, software is really picking up very fast.

The contribution of ICT to French GDP

Based on the growth accounting methodology, and the assumptions that are associated with it, it is very much possible to make estimates of the various factors of the economy to the growth of the economy. This methodology has much reliance on the modeling of productive activities based on the function of production. There is also an assumption that there are perfect markets which are competitive that are used for both inputs and outputs. In this regard, it is applied to the economy of France as a whole; there is also a separate application for software and for equipment. There is also software applied on the other hand for the types of equipment which are applied on the other hand. The graph that is shown below is one that is taken and used for the last 30 years up to 1999.

Other comparisons

The effect that ICT has on economic growth can be attributed to the capital investment that is there in a given country. There are two types of accounting types which include substitution effects and TFP gains that come as a result of enhancement and progress in the use of ICT. France has advanced in the use of ICT. ICT equipment is seen to drop in prices so that the adopting of ICT technologies is seen to be on the increase. It is predicted that this growth will further affect the other sectors of the economy so that the general GDP of France will be boosted.

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