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**Example of multi-source analysis of IT services**

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Session : Breakdown of turnover

**SUMMARY**

*This report discusses an example of multi-source analysis of companies providing IT services. In particular, it shows how knowledge of trends in production prices can help to explain the dynamics of a sector that is experiencing setbacks, despite its fast growth.*

Prices of IT consultancy and development services have been monitored in France since 2002 and during the period between 2002 and 2004, there was a significant fall of 7%. It is useful to compare this trend with other sources in order to have a better understanding of a fast-growing sector which has been forced to make adjustments since early 2000.

This fall in prices occurred after an extremely vigorous increase in activity and employment in this sector during the 1990s. The growth in business was accompanied by an increase in staff costs. At the same time, the share of profits in the added value of companies providing IT services fell by half between 1999 and 2001. In spite of this, the drop in prices in 2003 is seen more as an adjustment accompanied by a rationalisation of costs, rather than as a sign of a real crisis in the sector. Business picked up again in 2004 and prices recovered in the last quarter for the first time in three years. The beginning of 2005 was marked by comparative inertia.

### **Rapid growth at the end of the 90s**

From 1997 to 2001, the turnover of companies in the IT services sector gradually increased, at a very steady rate, sometimes exceeding 15% a year (graph 1). Two isolated events partly explain this surge: the transition of IT systems to the year 2000 and the introduction of the euro on 1<sup>st</sup> January 2002. As companies had invested heavily in upgrading their IT systems or replacing obsolete operating software before these deadlines, the expenditure peak was reached in 2001. The greatest increases in turnover are mainly in consultancy and system integration but also in software (an annual average of over 20% in each of these segments). The gradual advent of the internet also generated extra work for computer engineering and maintenance companies. They supported their clients through these changes and, thanks to them, the internet and e-mail have gradually become more widespread in companies.

The first reversal in the downward trend came in early 2002, then became more pronounced until the third quarter of 2003. Companies temporarily stopped making some large investments. All sales in the sector fell by 1% in 2002 and by 2.3% in 2003. In IT services, consultancy and engineering work contributed most to the fall in turnover in 2002. These are the companies that carry out the greatest amount of work before systems are installed.

From 2002, reducing costs became the priority for clients of IT companies. Projects were postponed, even cancelled. Clients of the computer engineering and maintenance companies preferred to improve the systems already in place and concentrate on areas where savings could be made. Against a background of economic slowdown, the client companies focused on their areas of competence. They outsourced tasks previously carried out in-house, an unavoidable step due to the increasing complexity of IT systems, the growth of networks and of the Internet. Unsurprisingly, therefore, "application maintenance outsourcing" and "information management outsourcing" services, which are responsible for IT functions of the client company, helped to minimise the decline in the sector's activity in 2002. The success of these services also stems from the nature of contracts, which are often long-term. This makes them more difficult to dispute and therefore guarantees a more regular income for the computer engineering and maintenance companies.

### **Profit levels eroded at the start of 2000, recovery in 2003**

From 2000, while business was booming, the share of profits in added value began to fall. It declined from 17.4% in 1999 to 8.6% in 2000, falling to 6.9% in 2001. The trend was not reversed until 2002, and the share of profits did not exceed 12% until 2003. These changes reflect variations linked to staff costs and the added value of companies. In fact, companies in IT services recruited heavily until 2001 (graph 1). Indicative of tensions in the labour market in the IT sector, the wage bill for computer programmers and engineers in the IT services sector went up by 35% in 2000. While the hourly wage of these two categories of salaried staff increased by 9% in 2000, the total number of hours worked by these two categories actually increased by 25%. The huge demand for computer analysts resulted in a large increase in their salaries during that period. The share of profits in added value fell, while turnover increased. In 2002, staff costs in the whole sector did not increase by more than 1%, after + 17.3% in 2000 and + 16.4% in 2001. The number of hours worked by computer programmers and engineers in the IT sectors also reached a plateau and the profit level of companies in the sector recovered in 2002, then again in 2003. Employment then rallied in 2004 and costs stabilised.

### **Significant reduction in prices in 2003**

The slowdown in business in 2002-2003 was accompanied by a considerable drop in prices. In two years, from the second quarter of 2002 to the second quarter of 2004, prices in IT consultancy and development services fell by 7% (graph 2, table 1). This substantial decrease is indicative of the decline in business in the IT sector and was achieved by staff cutbacks. This fall occurred mainly in 2003 and continued, though at a slower rate, into early 2004 but seems to have halted in the final quarter of 2004. Prices also fell in 2003, though to a lesser extent, for other IT activities such as data processing, data banks and equipment repair (table 1).

At the same time, the index of costs supported by IT services companies, calculated by the professional association, increased by just over 1% a year on average in the last two years (graph 2). Decreases in the prices of services provided and increases in costs supported by IT service companies have not had a major effect on revenue, due to staff cutbacks in 2002 and 2003. They can therefore be regarded more as an adjustment accompanied by a rationalisation of costs rather than as a sign of a real crisis in the sector, to the extent that the latter enjoyed an extremely pronounced upturn in its business during the 90s.

### **Revival of business and recovery of prices in 2004**

2004 witnessed another reversal, this time upwards. This recovery is expressed both in volume (+ 4.4 %) and value (+ 2.8 %) of production. The increase in IT consultancy work, + 4.4% in volume, is regarded by those in the business as a sign of a recovery in the sector. Software, with a 4.7% increase in volume, is also leading the growth in the market. The revival in business is supported both by intermediate consumption in companies and public sectors (+ 3.9% in volume) and by investment demand (+ 4.1% in volume). According to the professional association, Syntec-Informatique, all industry sectors are well placed. The telecommunications sector, where there was a considerable fall in demand in 2002-2003, should see the greatest expansion. In 2004, demand in this sector rose by 8%, mainly as a result of the growth of networks and the Internet in companies.

## Appendices

### Cost and price indices in IT service companies

The price indices calculated by INSEE are indices of prices of IT services and not indices of costs supported by IT service companies. They measure trends in the market prices of services provided by these companies and are used to calculate volume production, obtained by dividing the value of production by the change in these prices. In an altogether different way, cost indices are sometimes used to index the price of contracts between a service company and its clients for a given sector.

The difficulty with measuring prices in this type of business, particularly in consultancy, is that each service is specific and cannot be compared to that of another client. In order to circumvent this problem, Insee measures price trends by the skills of the staff employed to provide these services (engineer, programmer, etc.). For each company surveyed, the most representative qualifications were selected and their price monitored over time. This means that it is the market price charged that is monitored, not a catalogue price. In order to draw up the index, the monitored services (a given qualification in a sampled company) are weighted by the turnover of the company being surveyed, with this weighting updated annually.

For the sake of international comparisons and to comply with European recommendations on the subject, price trends must be measured when the service is provided, not when the contract is signed with the client. This is all the more important where contracts are long-term (lasting six months, or even a year), particularly in IT consultancy. Price trends measured by Insee are a good reflection of price trends at the time services are provided, not when contracts are signed. Therefore, in order to measure the price of a given qualification in a given three month period, the company surveyed refers to all ongoing projects during this quarter, not new projects signed during this quarter.

### IT activities and services

In this study, prices and activities of IT services are described using the nomenclature for European activity, called NACE. In France, the IT services sector (division 72 in the NACE) is one of the most dynamic services provided to companies, representing 13% of its turnover. It consists of about 34,000 companies and 340,000 salaried staff. It comprises several segments:

#### IT systems consultancy (NACE 72.10)

This involves analysis, consultancy and support in IT systems or configurations, both in terms of hardware and software (evaluation of client requirements, acquisition planning, consultancy in terms of choice of hardware and software, security). Production in these services was estimated at 12.5 billion euros in 2004 by national accounts.

#### Software production (NACE 72.21, 72.22)

Production in this area was estimated at 27 billion euros in 2004. It is broken down into :

##### *- Publication of non-customised software (NACE 72.21)*

These are services involving the development, production, leasing or granting of licences, provision and documentation of standard software (software packages, application utilities, games software) and subsequent publishing.

##### *- Other activities in customised software production (NACE 72.22)*

Includes the design, programming and maintenance of ready-to-use, "on-demand" systems, according to the users' instructions, the design of web pages, the creation and development of internet sites, but not web hosting.

The "IT consultancy and engineering" index incorporates the prices of consultancies (NACE 72.10) and of customised software development activities (NACE 72.22), although maintenance is excluded from the latter, particularly application maintenance outsourcing. The latter will be examined in another price index relating to information management outsourcing, which is currently being drawn up.

Data processing services (NACE 72.30)

Includes services involving management of IT installations and supply of staff who are assigned to run or operate them on a permanent basis at the location of the IT installations (information management outsourcing). This category also includes computer processing, such as data processing, data capture and Internet site hosting. The price index "Data capture and customised IT work" does not include information management outsourcing or web hosting, which have separate price indices. Production in the sector as a whole was calculated as 8.2 billion euros in the national accounts in 2004.

Data bank activities, online publishing (NACE 72.40)

This area consists of supplying data to clients, by extraction or by direct access to data (financial data, consumer behaviour, addresses, etc.). This activity includes publishing online databases, with no connection to other forms of publishing, and search portals on the Internet, but not the sale of advertising space. It was estimated at 1 billion euros in 2004, a significant increase on recent years.

Maintenance and repair of office equipment and computer hardware (NACE 72.50)

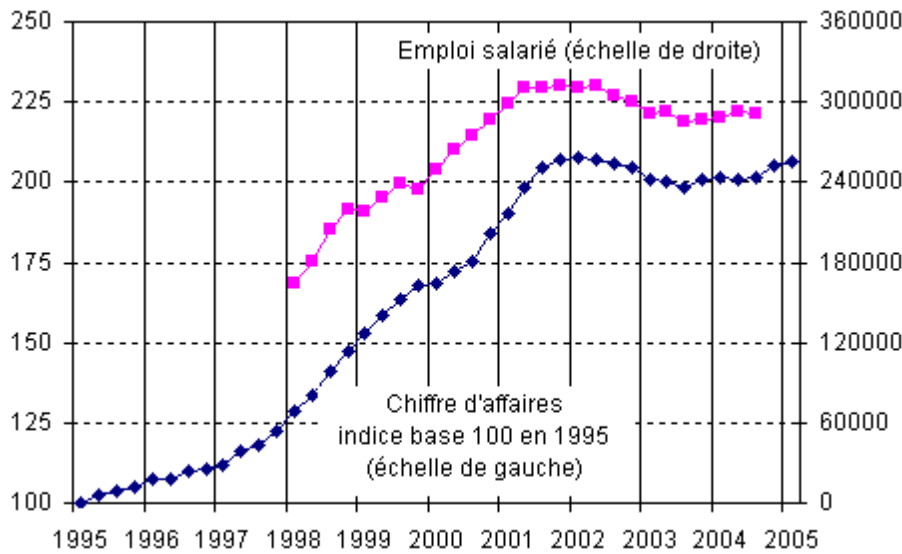
Maintenance and repair of computers, printers, photocopiers, cash registers and various specialised terminals (particularly payment terminals), but not leasing of this equipment. Production was estimated at 6.8 billion in 2004.

## Tables and Graphs

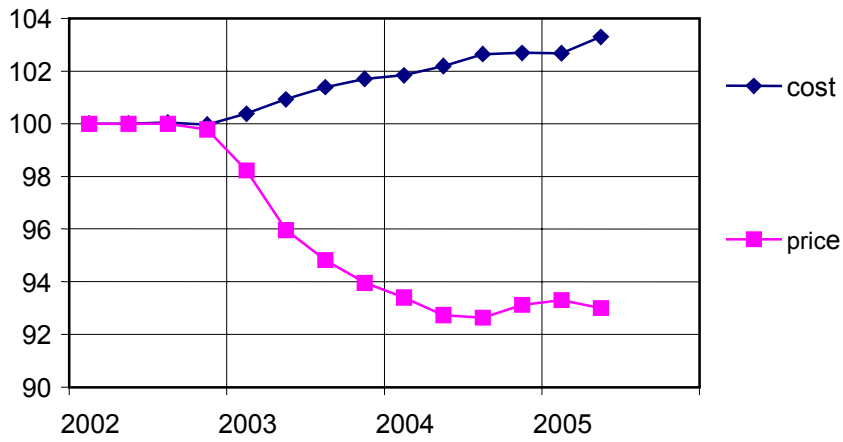
Table 1 : prices of IT services provided to companies

Sector	CPF product code	base 100 in	2002				2003				2004				2005	
			T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2
IT consultancy and engineering	72.10	T1 02	100	100.0	100.0	99.8	98.2	96.0	94.8	94.0	93.4	92.7	92.6	93.1	93.3	93.0
	+ 72.22															
Data capture and customised IT work	72.30.21	T1 02	100	99.6	100.1	100.8	98.8	97.3	96.3	96.6	97.5	98.1	96.9	97.0	96.8	
	+ 72.30.22															
Database activities	72.40	T1 02	100	98.5	98.0	97.4	97.8	97.8	97.2	97.4	100.3	99.6	99.6	98.9	100.4	
Maintenance and repair of office equipment and computer hardware	72.5Z	T1 02	100	98.5	97.5	97.5	98.1	97.5	97.7	97.9	97.7	97.6	97.5	98.5	99.2	
Source : Insee – Pole prices of services to companies																
<a href="http://indicespro.insee.fr">http://indicespro.insee.fr</a>																

Graph 1 : trends in turnover and employment in the IT services sector



Graph 2 : prices of IT consultancy and development services,  
wage bill supported by IT service companies  
base 100 in 2002



Source : Syntec informatique (cost index), Insee (price index of services to companies)

Key to Text in Graph 1

Emploi salarié (échelle de droite) – Salaried employment (scale on right)

Chiffre d'affaires – turnover

Indice base 100 in 1995 (échelle de gauche) – Base 100 index in 1995 (scale on left)