



Competition from emerging countries, international relocation and their impacts on employment

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Document de travail

COMPETITION FROM EMERGING COUNTRIES, INTERNATIONAL RELOCATION AND THEIR IMPACTS ON EMPLOYMENT

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Abstract

International relocation has become a topical issue in recent months, in France as elsewhere in Europe. This working paper is a set of four articles. Guillaume Daudin and Sandrine Levasseur provide an assessment of the impact of international relocation on French employment. Georges Pujals deals with offshore outsourcing in the financial sector from a European perspective. Catherine Mathieu and Henri Sterdyniak focus on policy measures taken or to be taken in face of job losses in the French economy. Jean-Luc Gaffard and Michel Quéré show that free competition alone is not optimal for European economies and that a combination of structural and growth oriented macroeconomic policies is needed.

Keywords: trade, competition, relocation, employment, emerging economies, industrial economies

JEL Classification: F16, G21, L22, R11, R12

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Foreword

International relocation has become a topical issue in recent months, in France as elsewhere in Europe. Many economists think that the relocation process is not an issue Europe should worry about: the free-market will lead to an optimal situation; any protectionist measure would be an attempt to halt the emergence of developing economies. However, some economists think that the relocation process raises a number of issues in terms of economic growth and employment. Can European economies live without production industries? What should be done in face of unskilled job losses?

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I. OFFSHORE RELOCATIONS AND EMERGING COUNTRIES' COMPETITION: MEASURING THE EFFECT ON FRENCH EMPLOYMENT

Guillaume Daudin and Sandrine Levasseur*

From 1980 to 2002, French industry lost 1,450,000 jobs. The growth of imports from emerging countries suggests that trade with them might be the culprit. First, however, one must correct the raw employment loss number from the effect of the rise of temporary work and domestic outsourcing: thus corrected, the industrial job loss is reduced to 1,095,000. Offshore relocations to emerging countries are not well measured. They have entailed only 45,000 job losses between 1995 and 2001. Second, the paper reviews the evaluations of job losses linked to trade with emerging countries in general. Three methods have been used: the job content of trade, econometric studies and macro-economic models. None is fully satisfying. They indicate that there would be between 150,000 and 300,000 additional industrial jobs in France but for the rise of trade with emerging countries.

Introduction

As in many other developed countries, international relocations are currently a very hot topic in France. This can be readily concluded from the number of articles devoted by the French newspapers to this subject in 2004, compared to the preceding years (table 1). A heated debate already took place in the early 1990s, culminating with the reports of Arthuis and Devedjian in 1993¹. Recently, the new enlargement of the European Union to Central and Eastern European countries (CEECs hereafter) and the suppression of quotas on textile imports, especially from China, have resumed fears about international relocations, which are assumed causing both employment losses and deindustrialisation of the French economy².

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¹ Devedjian (1993) and Arthuis (1993).

² Fears about international relocations, and more generally about trade with emerging countries, have resulted in pressures emanating from European lobbies on April 2005 to establish again quotas on Chinese textile imports.

Table 1: Number of articles treating of international relocations in the French newspapers

| Research terms | 2000 | 2003 | 2004 |
|---|------|------|------|
| "Délocalisations" | 215 | 879 | 4144 |
| Of which "headlines" | 10 | 53 | 453 |
| "Délocalisations" + "chômage" | 33 | 208 | 859 |
| "Délocalisations" + "35 heures" | 20 | 57 | 500 |
| "Délocalisations" + "salaires" | 30 | 138 | 709 |
| "Délocalisations" + "chômage" + "salaires" | 9 | 51 | 224 |
| "Délocalisations" + "chômage" and/or "salaires" | 54 | 295 | 1344 |

Translations: "Délocalisations" for international relocations, "Chômage" for unemployment, "35 heures" for the 35 hour working week and "salaires" for wages.

Source: Lexis-Nexis.

In this respect — at least up to recent months — the consequences of international relocations on labour force were viewed differently in France than in the United Kingdom or the United States. In these two latter countries, no strong labour market regulations prevent the divergence between skilled and unskilled wages³. Hence, international relocations are seen as exercising downward pressures on unskilled wages. In France, it is the growing unemployment of the unskilled labour force over the two last decades⁴ that is perceived by many citizens as resulting from French enterprises realising an increasing share of their activities *in* (or *with*) countries where labour costs are lower. However, this distinction is currently narrowing, as the public debate in the United States has been recently framed in terms of job losses and some French cases have received a huge amount of attention in the media and political circles about the possible adverse effects of international relocations on existing regulations. In the case of Bosch, the public was shocked to learn that an industrial firm was able to convince its workers of lengthening the 35-hour work week without any wage compensation, otherwise international relocation would occur. The current right-wing government is using the same argument to increase the support for structural reforms on the labour market.

While the debate is heated again, the underlying empirical data used by protagonists are mainly anecdotic evidence of very rough measures⁵. The goal of the present paper is to

³ For a comparison between France and the U.S., see Lefranc (1997).

⁴ The unemployment rate for males with low education (and then assumed "unskilled") rose from 5.4 % in 1981 to 13.5 % in 1994. By contrast, the unemployment rate for males with high education (and then assumed "skilled") increased from 3 % in 1981 to "only" 5.9 % in 1994. The gap for female unemployment rates by education level is even larger: see Strauss-Kahn (2003).

⁵ For example, Direction Générale du Trésor et de la Politique Économique (2004) simply states that 3.4 % of all jobs in 2002 (796 000) are potentially threatened by service international relocations.

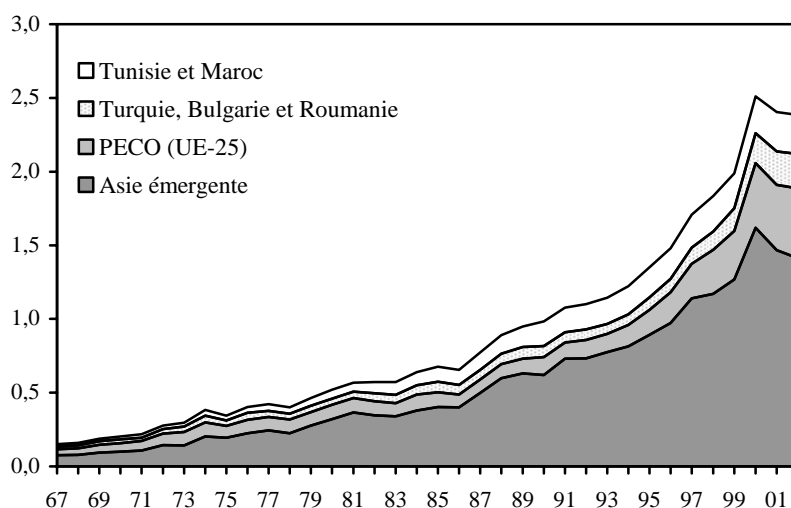
discuss and provide some empirical insights on the subject. First, we propose data on job losses in industrial sectors, corrected by temporary employment (interim) and domestic outsourcing. Second, we draw a review of empirical studies measuring the effects of international openness (including international relocations) on French employment.

Part 1: Development of industrial French employment over 1970-2002

1.1. What sectors are suspected of having suffered from international relocations?

Three types of development are needed to isolate the sectors that might have suffered from international relocations: for a given sector, imports and the trade deficit must grow faster than domestic demand while its share in the total employment must decrease. In the INSEE classification, five sectors correspond to that description from 1978 to 2002: clothing and leather products, fuel production, household equipment, electric and electronic equipment, and textile⁶. Leaving aside fuel production, the rise of imports in these “unskilled labour intensive sectors from developing countries is impressive, as can be seen in figure 3.

Figure 1: French manufactured imports from ‘emerging industrial’ countries as a percentage of French GDP



⁶ Drumetz (2004).

Figure 2: French manufactured exports to 'emerging industrial' countries as a percentage of French GDP

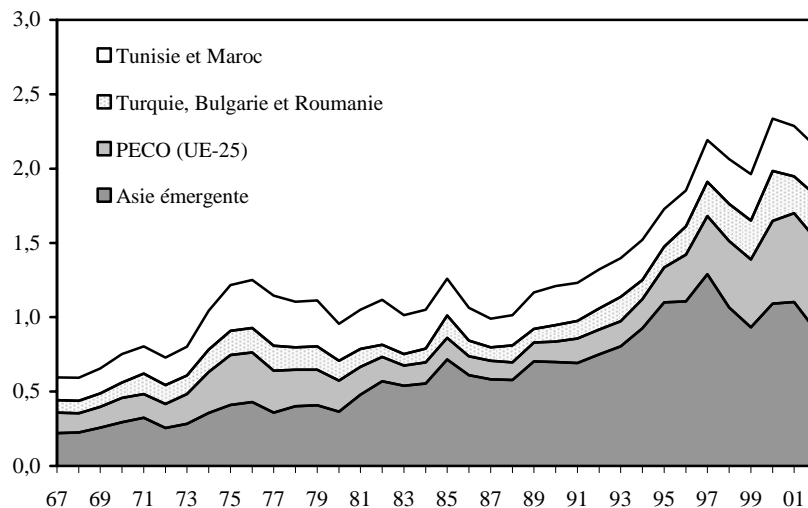
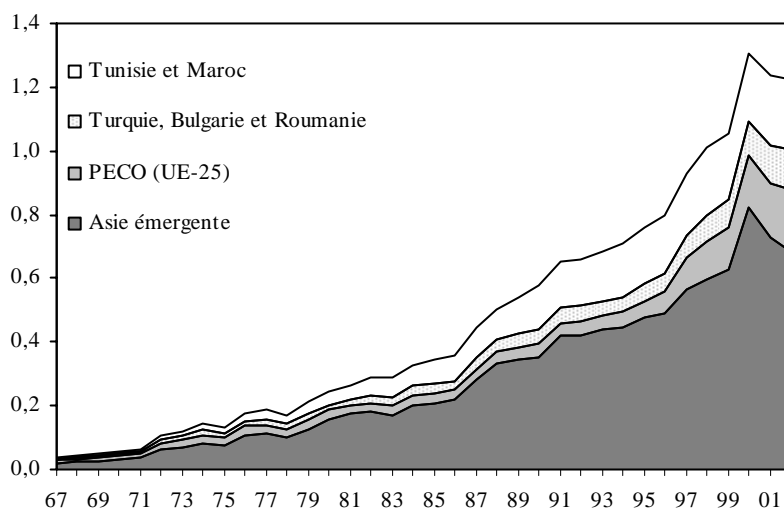


Figure 3: French selected imports* from 'emerging industrial' countries as a percentage of French GDP



Notes: Emerging Asia (Asia outside Japan). CEEC (Central and Eastern European Countries: 8 new member states, including Poland, Slovenia, Hungary, Czech Republic, Slovakia, Estonia, Latvia, Lithuania)

Selected imports: roughly, clothing and leather products, household equipment, electric and electronic equipment, and textile. Exactly: FP *Electroménager*; FQ *Matériel électrique*; Fr *Fournitures électriques*; Fm *Electronique grand public*; Gh *Articles en plastique*; Gi *Articles en caoutchouc*; DA *Fils et tissus*; DB *Vêtements de confection*; DC *Vêtements de bonneterie*; DE *Cuir*; EA *Ouvrages en bois*; FL *Composants électroniques*.

Source: All figures are courtesy of Catherine Mathieu (using CEPII-CHELEM database).

1.2. A first measure of industrial job losses: taking into account temporary work

Here, we will not explore deeper the trade data. Our focus will be on the employment data. A change in the INSEE classification of manufacturing makes it difficult to measure the job losses in these sectors from 1970 to 2002. To do that, we have to use an OECD database, STAN.

In France, while the growth rate of total employment was 18 % over 1970-2002, industrial employment declined by 30 % (table 2). Put differently, the French economy created roughly 4 millions of jobs during 1970-2002, but the manufacturing sector as a whole lost nearly 2 millions of jobs. On a relatively high level of aggregation, all manufacturing sectors (except food industries) lost employment, with traditional sectors showing the most important losses. Especially, the "textiles and leather" sectors lost 670,000 jobs over 1970-2002⁷.

⁷ To a lower level of aggregation, a few manufacturing sectors show an increase of employment over 1987-2002 (figures not reported in Table 2): "pharmaceuticals (+11.5 %)", "offices, computing and accounting" (+11.4 %), "rubber and plastic products" (10.1 %), "building and repairing of ships and boats" (+3.7 %).

Table 2: French employment by sectors (thousand of employed)

| | 1970 | 1975 | 1980 | 1985 | 1990 | 1995 | 2000 | 2002 | 1970-2002 | 1985-2002 | 1970-2002 | 1985-2002 |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|-------------|---------------|---------------|
| Grand total | 21,051 | 21,563 | 22,191 | 21,845 | 22,851 | 22,682 | 24,308 | 24,887 | +18% | +14% | +3,837 | 3,042 |
| Agriculture, hunting, forestry and fishing | 2,946 | 2,301 | 1,948 | 1,634 | 1,348 | 1,112 | 1,034 | 1,015 | -66% | -38% | -1,931 | -620 |
| Total manufacturing | 5,365 | 5,501 | 5,231 | 4,610 | 4,396 | 3,874 | 3,811 | 3,789 | -29% | -18% | -1,576 | -821 |
| Food products, beverages and tobacco | 613 | 613 | 621 | 626 | 613 | 597 | 632 | 641 | +4% | +2% | +27 | +15 |
| Textiles, textile products, leather and footwear | 904 | 808 | 680 | 545 | 444 | 333 | 260 | 234 | -74% | -57% | -670 | -310 |
| Wood and products of wood and cork | 144 | 144 | 140 | 112 | 114 | 100 | 90 | 91 | -37% | -19% | -53 | -21 |
| Pulp, paper, paper products, printing and publishing | 355 | 363 | 357 | 344 | 366 | 332 | 326 | 320 | -10% | -7% | -35 | -24 |
| Chemical, rubber, plastics and fuel products | 555 | 600 | 587 | 539 | 529 | 475 | 461 | 466 | -16% | -13% | -88 | -73 |
| Other non-metallic mineral products | 320 | 299 | 272 | 219 | 210 | 184 | 171 | 170 | -47% | -22% | -151 | -49 |
| Basic metals and fabricated metal products | 848 | 874 | 795 | 649 | 633 | 547 | 553 | 553 | -35% | -15% | -295 | -96 |
| Machinery and equipment | 864 | 964 | 931 | 843 | 818 | 735 | 742 | 731 | -15% | -13% | -133 | -113 |
| Transport equipment | 521 | 575 | 572 | 499 | 440 | 373 | 379 | 385 | -26% | -23% | -136 | -114 |
| Manufacturing nec; recycling | 240 | 261 | 275 | 234 | 230 | 199 | 199 | 199 | -17% | -15% | -41 | -36 |
| Electricity, gas and water supply | 153 | 159 | 175 | 198 | 192 | 191 | 192 | 192 | +25% | -3% | +38 | -6 |
| Construction | 2,070 | 1,970 | 1,917 | 1,590 | 1,663 | 1,433 | 1,430 | 1,493 | -28% | -6% | -578 | -97 |
| Wholesale and retail trade; restaurants and hotels | 3,281 | 3,409 | 3,587 | 3,628 | 3,913 | 3,819 | 4,142 | 4,312 | +31% | +19% | +1,031 | +685 |
| Transport and storage and communication | 1,115 | 1,179 | 1,256 | 1,291 | 1,328 | 1,334 | 1,480 | 1,545 | +39% | +20% | +430 | +254 |
| Finance, insurance, real estate and business services | 1,574 | 1,934 | 2,283 | 2,497 | 3,097 | 3,275 | 3,995 | 4,193 | +166% | +68% | +2,619 | +1,696 |
| Community social and personal services | 4,546 | 5,110 | 5,792 | 6,399 | 6,913 | 7,644 | 8,224 | 8,350 | +84% | +30% | +3,804 | +1,951 |
| Total services | 10,517 | 11,632 | 12,919 | 13,814 | 15,251 | 16,073 | 17,841 | 18,400 | +75% | +33% | +7,883 | +4,586 |

Source: OECD, STAN.

As a result of the so-called "deindustrialisation" of the French economy, the share of manufacturing employment in total employment decreased from 25.5 % in 1970 to 15.2 % in 2002, that is by 10 percent points in three decades (table 3). The "textiles and leather" sectors moved from 4.3% of total French jobs in the 1970s to less than 1% now. This development in manufacturing sectors sharply contrasts with the one in service sectors.

Table 3: French employment by sectors (in % of total employment)

| | 1970 | 1975 | 1980 | 1985 | 1990 | 1995 | 2000 | 2002 | 1970-2002 | 1985-2002 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Agriculture, hunting, forestry and fishing | 14,0 | 14,0 | 8,8 | 7,5 | 5,9 | 4,9 | 4,3 | 4,1 | -71% | -46% |
| Total manufacturing | 25,5 | 25,5 | 23,6 | 21,1 | 19,2 | 17,1 | 15,7 | 15,2 | -40% | -28% |
| Food products, beverages and tobacco | 2,9 | 2,9 | 2,8 | 2,9 | 2,7 | 2,6 | 2,6 | 2,6 | -12% | -10% |
| Textiles, textile products, leather and footwear | 4,3 | 4,3 | 3,1 | 2,5 | 1,9 | 1,5 | 1,1 | 0,9 | -78% | -62% |
| Wood and products of wood and cork | 0,7 | 0,7 | 0,6 | 0,5 | 0,5 | 0,4 | 0,4 | 0,4 | -47% | -29% |
| Pulp, paper, paper products, printing and publishing | 1,7 | 1,7 | 1,6 | 1,6 | 1,6 | 1,5 | 1,3 | 1,3 | -24% | -18% |
| Chemical, rubber, plastics and fuel products | 2,6 | 2,6 | 2,6 | 2,5 | 2,3 | 2,1 | 1,9 | 1,9 | -29% | -24% |
| Other non-metallic mineral products | 1,5 | 1,5 | 1,2 | 1,0 | 0,9 | 0,8 | 0,7 | 0,7 | -55% | -32% |
| Basic metals and fabricated metal products | 4,0 | 4,0 | 3,6 | 3,0 | 2,8 | 2,4 | 2,3 | 2,2 | -45% | -25% |
| Machinery and equipment | 4,1 | 4,1 | 4,2 | 3,9 | 3,6 | 3,2 | 3,1 | 2,9 | -28% | -24% |
| Transport equipment | 2,5 | 2,5 | 2,6 | 2,3 | 1,9 | 1,6 | 1,6 | 1,5 | -38% | -32% |
| Manufacturing nec; recycling | 1,1 | 1,1 | 1,2 | 1,1 | 1,0 | 0,9 | 0,8 | 0,8 | -30% | -26% |
| Electricity, gas and water supply | 0,7 | 0,7 | 0,8 | 0,9 | 0,8 | 0,8 | 0,8 | 0,8 | 6% | -15% |
| Construction | 9,8 | 9,8 | 8,6 | 7,3 | 7,3 | 6,3 | 5,9 | 6,0 | -39% | -18% |
| Wholesale and retail trade; restaurants and hotels | 15,6 | 15,6 | 16,2 | 16,6 | 17,1 | 16,8 | 17,0 | 17,3 | 11% | 4% |
| Transport and storage and communication | 5,3 | 5,3 | 5,7 | 5,9 | 5,8 | 5,9 | 6,1 | 6,2 | 17% | 5% |
| Finance, insurance, real estate and business services | 7,5 | 7,5 | 10,3 | 11,4 | 13,6 | 14,4 | 16,4 | 16,8 | 125% | 47% |
| Community social and personal services | 21,6 | 21,6 | 26,1 | 29,3 | 30,3 | 33,7 | 33,8 | 33,6 | 55% | 15% |
| Total services | 50,0 | 50,0 | 58,2 | 63,2 | 66,7 | 70,9 | 73,4 | 73,9 | 48% | 17% |

Sources: OECD, STAN.

1.3. A better measure of industrial job losses: taking into account domestic outsourcing

At least a part of the industrial job losses is due to changes in the employment structure of industry, with the rise of temporary employment (interim) and of domestic outsourcing. Then, from a statistical viewpoint, an increasing number of jobs are classified in services sectors.

A first breakdown of temporary workers by sectors gives interesting insights. Temporary employment developed strongly in France, especially during the second part of 1990s characterised by a strong economic recovery: the number of temporary workers has increased from 232,000 in 1990 to 290,700 in 1996 to reach 554,900 in 2003, after culminating to 604,300 in 2000. Moreover, over this period, between 45 and 55 % of temporary workers were working in manufacturing sectors and 20 % in construction. The temporary rate — that is the share of temporary employment in total employment — was, on average, 6.9 % for all manufacturing sectors in 2003 against 4.0 % in 1995 (when evaluated

in full-time equivalents as in table 4). Sectors with the largest temporary rate are the automobile industry (11 % in 2003), chemical sectors (8.5 %) and electric and electronic components (7 %). The wearing apparels and leather products sectors, in which international relocations are suspected quite large, have the lowest temporary rate (1.8 % in 2003).

As reported in table 4, the use of temporary rates dampens the losses of jobs in the manufacturing sector (including energy) from 169,400 jobs between 1995 and 2003 to “only” 57,300 jobs. The picture of French deindustrialisation is then overstated by 112,100 jobs when temporary employment is not taken into account (by 110,100 jobs when energy sectors are excluded). Even job losses in the textile and leather sectors, with small temporary rates, are overstated by 2,200 jobs over 1995-2002: they would be “only” 91,600⁸. Surely, while the sector of household equipment recorded also substantial job losses (-13,660 jobs over 1995-2002), other sectors intensive in low-skilled labour and currently suspected of international relocations have created jobs: mechanical equipment (+6,700 jobs), electronic and electric equipment or components (+22,500 jobs), metal products (+24,700 jobs). Note that French employment in automobile sectors has gained near 28,900 jobs between 1995 and 2003 (with more than 1,000 jobs between 2002 and 2003) at a time when international relocations in CEECs were perceived as growing fast.

⁸ This figure derives from 68,100 job losses in sectors of wearing and leather products, plus 23,500 in textile industry.

Table 4: Overestimation of industrial employment losses due to temporary work

(salary employment, full-time equivalent, in thousands)

| | Employment | | | | | Temporary rate (in %)* | | | Total employment (including temporary workers) | | | | | Overestimation due to temporary workers | |
|---------------------------------------|------------|--------|--------|---------------|---------------|---------------------------|------|------------|---|--------|--------|---------------|---------------|--|---------------|
| | 1995 | 2002 | 2003 | 1995- 2002 | 1995- 2003 | 1995 | 2002 | 2003 | 1995 | 2002 | 2003 | 1995- 2002 | 1995- 2003 | 1995- 2002 | 1995- 2003 |
| Food industries | 501.7 | 540.0 | 540.2 | 38.3 | 38.5 | 4.2 | 7.2 | 6.7 | 523.7 | 581.6 | 581.6 | 57.9 | 57.9 | 19.6 | 19.4 |
| Consumption goods | 723.4 | 635.8 | 615.3 | -87.6 | -108.1 | 2.7 | 5 | 4.8 | 743.6 | 669 | 648.1 | -74.5 | -95.5 | 13.1 | 12.6 |
| Wearing and leather products | 185.5 | 116.9 | .. | -68.6 | .. | 0.8 | 1.7 | 1.8 | 187 | 118.9 | .. | -68.1 | .. | 0.5 | .. |
| Printing and publishing | 214.8 | 210.0 | .. | -4.8 | .. | 1.5 | 2.5 | 2.4 | 218 | 215.5 | .. | -2.5 | .. | 2.3 | .. |
| Chemicals and chemical products | 112.3 | 116.2 | .. | 3.9 | .. | 4.9 | 9.1 | 7.1 | 118.1 | 127.9 | .. | 9.8 | .. | 5.9 | .. |
| Household equipment | 210.8 | 192.7 | .. | -18.1 | .. | 4.4 | 6.8 | 6.9 | 220.4 | 206.8 | .. | -13.7 | .. | 4.4 | .. |
| Automobile industry | 250.6 | 260.7 | 258.4 | 10.1 | 7.8 | 5.5 | 11.0 | 11.0 | 265.2 | 293.0 | 294.0 | 27.8 | 28.8 | 17.7 | 21.0 |
| Good equipment | 724.4 | 732.3 | 711.5 | 7.9 | -12.9 | 4.7 | 6.4 | 5.7 | 760.2 | 782.2 | 758.9 | 22 | -1.3 | 14.1 | 11.6 |
| Ship, aircraft and railroad equipment | 116.3 | 117.8 | .. | 1.5 | .. | 2.9 | 5.9 | 4.6 | 119.8 | 125.2 | .. | 5.4 | .. | 3.9 | .. |
| Mechanical equipment | 414.6 | 413.4 | .. | -1.2 | .. | 5.4 | 7.1 | 6.6 | 438.3 | 445.0 | .. | 6.7 | .. | 7.9 | .. |
| Electric and electronic equipment | 193.5 | 201.1 | .. | 7.6 | .. | 4.3 | 5.2 | 4.6 | 202.2 | 212.1 | .. | 9.9 | .. | 2.3 | .. |
| Intermediate industries | 1365.1 | 1332.1 | 1295.7 | -33 | -69.4 | 4.4 | 7.7 | 7.2 | 1427.3 | 1443.5 | 1403.3 | 16.2 | -24.0 | 49.2 | 45.4 |
| Mineral products | 173.5 | 159.8 | .. | -13.7 | .. | 3.6 | 6.5 | 6.3 | 180 | 170.8 | .. | -9.2 | .. | 4.5 | .. |
| Textile industry | 127.4 | 102.2 | .. | -25.2 | .. | 2.3 | 4.4 | 4.2 | 130.3 | 106.9 | .. | -23.5 | .. | 1.7 | .. |
| Wood and paper | 180.6 | 167.0 | .. | -13.6 | .. | 3.8 | 7.2 | 6.6 | 187.6 | 180 | .. | -7.6 | .. | 6 | .. |
| Chemicals, rubber and plastics | 306 | 308.5 | .. | 2.5 | .. | 5 | 9.6 | 8.5 | 322 | 341.2 | .. | 19.1 | .. | 16.6 | .. |
| Basic metals and metal products | 408.1 | 419.0 | .. | 10.9 | .. | 5.1 | 9.9 | 7.4 | 430.1 | 454.8 | .. | 24.8 | .. | 13.9 | .. |
| Electric and electronic components | 169.5 | 175.6 | .. | 6.1 | .. | 4.3 | 7.5 | 7.0 | 177.2 | 189.8 | .. | 12.6 | .. | 6.5 | .. |
| Industry (excluding energy) | 3565.2 | 3500.9 | 3421.1 | -64.3 | -144.1 | 4.2 | 7.1 | 7.2 | 3720 | 3769.4 | 3686.0 | 49.3 | -34.0 | 113.6 | 110.1 |
| Energy | 235 | 213.4 | 209.7 | -21.6 | -25.3 | 1.5 | 2.6 | 2.2 | 238.7 | 219.1 | 215.4 | -19.6 | .. | 2.0 | .. |
| Energy producing materials | 46.3 | 31.4 | .. | -14.9 | .. | 1.7 | 3.8 | 2.9 | 47.1 | 32.6 | .. | -14.5 | .. | 0.4 | .. |
| Electricity, gas and water | 188.7 | 182 | .. | -6.7 | .. | 1.5 | 2.4 | 2.1 | 191.6 | 186.4 | .. | -5.1 | .. | 1.6 | .. |
| Industry (including energy) | 3800.2 | 3714.3 | 3630.8 | -85.9 | -169.4 | 4 | 6.9 | 6.9 | 3958.7 | 3988.5 | 3901.4 | 29.8 | -57.3 | 115.7 | 112.1 |

Temporary workers divided by total salaries workers (including temporary workers, both in full time equivalents).

Sources: INSEE and DARES databases, and authors' computations. See also Fontagné and Lorenzi (2005, p.36), Gonzales (2002) and Mihoubi (2002).

However, the resort to temporary workers is largely linked to the general dynamism of the economy as illustrated by the end of 1990s. Moreover, no data is available to measure temporary employment before 1995.

To get a longer-term view, we have to look into outsourcing of services in general — including temporary workers. Many activities previously realised by employees of industrial firms are currently realised by services firms: cleaning, logistic, retail, R&D activities etc.⁹ This results in an artificial decrease of the employment share of manufacturing. The importance of this phenomenon is confirmed by the rise of the ratio between the value added of different sectors and the value of intermediate consumption from the business services (see table 5). The growth of externalisation was particularly impressive in the 1990s, reaching up 50% in some sectors.

⁹ Note that growing externalisation by sectors not belonging to manufacturing sectors (e.g. construction) contributes also to the bias in favour of employment in services sectors (or "tertiarisation" of the French economy).

Table 5: Domestic outsourcing from industry

| In % of value added of each sector | | | | | In % of the whole business service production | | |
|--|------------------|------------------|------------------|-------------------------------|---|------------------|------------------|
| | 1980 | 1995 | 2002 | Changes between 1995 and 2002 | 1980 | 1995 | 2002 |
| Food industries | 14.1 | 34.9 | 42.1 | 21% | 4.0 | 4.5 | 4.1 |
| Consumption goods | .. | 33.8 | 45.4 | 34% | 2.8 | 5.8 | 5.2 |
| Wearing and leather products | .. | 23.2 | 32.2 | 39% | | | |
| Printing and publishing | .. | 25.9 | 34.1 | 32% | | | |
| Chemicals and chemical products | 24.4 | 47.7 | 59.3 | 24% | | | |
| Household equipment | 29.1 | 35.8 | 47.6 | 33% | | | |
| Automobile industry | 11.9 | 49.8 | 46.8 | -6% | 2.1 | 3.0 | 2.9 |
| Equipment goods | 21.0 | 37.8 | 47.1 | 25% | 10.2 | 6.5 | 5.9 |
| Ship, aircraft and railroad equipment | 24.0 | 37.4 | 47.4 | 27% | | | |
| Mechanical equipment | 26.2 | 34.7 | 43.2 | 24% | | | |
| Electric and electronic equipment | 14.8 | 42.6 | 52.8 | 24% | | | |
| Intermediate industries | 15.6 | 20.8 | 28.0 | 34% | 10.7 | 7.0 | 6.5 |
| Mineral products | 13.5 | 15.4 | 19.2 | 25% | | | |
| Textile industry | .. | 26.1 | 30.9 | 18% | | | |
| Wood and paper | .. | 10.1 | 12.3 | 22% | | | |
| Chemicals, rubber and plastics | 11.1 | 31.8 | 41.8 | 31% | | | |
| Basic metals and metal products | .. | 12.8 | 18.1 | 41% | | | |
| Electric and electronic components | .. | 30.9 | 48.1 | 56% | | | |
| Industry (excluding energy) | .. | 30.8 | 39.0 | 26% | 29.8 | 26.6 | 24.6 |
| Energy | .. | 23.6 | 26.9 | 14% | 3.6 | 3.2 | 2.5 |
| Industry (including energy) | .. | 29/8 | 37.7 | 7.6% | 33.4 | 29.8 | 27.1 |
| For information, salary employment in the business service sector | 1,521,500 | 2,272,900 | 3,124,600 | 39% | 1,521,500 | 2,272,900 | 3,124,600 |

Source: INSEE national accounts.

In first approximation, such a bias in favour of services can be corrected by measuring the development of employment in the business services sector. According to the INSEE, it has increased from 1,500,000 in 1980 to 3,367,000 in 2002¹⁰. However, the national accounts do not give a readily way of dispatching the jobs of the business service sector in its consuming sectors, as the Input-Output table only exist in terms of consumption, not value-added or jobs. In 1980, 29.8% of the production of the business service sector were intermediate production for industry excluding energy (33.4% including energy). We can use

this ratio as a proxy of the ratio of outsourced industrial employment among total employment in the business service sector. As total employment in the business service sector was 1,521,500 full-time equivalent, we can estimate that 453,000 jobs were outsourced by industry, excluding energy (508,000 including energy). The same computation can be made for 1995 and 2002, leading to the following table.

Table 6: Estimation of outsourced salary employment from industry into the business service sector

| | 1980 | 1995 | 2002 |
|-------------------------|---------|---------|---------|
| Excluding energy | 453,000 | 600,000 | 769,000 |
| Including energy | 508,000 | 672,000 | 847,000 |

Source: INSEE national accounts.

These numbers suggests that industrial salary employment losses, including energy, are overestimated by 316,000 jobs over 1980-2002 and 169,000 over 1995-2002 (respectively 339,000 and 175,000 including energy). This overestimation represents 22,5% of the total (1,400,000 from 1980 to 2002). This is probably an underestimation of the effect of outsourcing, as the rise of temporary employment by itself, simply between 1995 and 2002 was 115,000: that suggests that only 78,000 jobs were outsourced beside temporary employment. The “true” manufacturing job losses from 1980 to 2000 were probably less than 77,5% of the directly measured ones, or less than 1,085,000

This is still a sizeable number, but it is certain that not all losses were linked to international relocation — or even, more generally, to trade. Technical progress and shifts in demands are other obvious suspects. The next part will present the studies that have tried to compare the responsibility of these different effects.

Part 2: A survey of empirical studies measuring the effects of international openness on French employment

First, it must be underlined that it is not possible to measure the effects of international relocation *per se*. The data available are very recent, and they do not allow to isolate the whole phenomenon. The European Monitoring Centre on Change (EMCC) — which analyses the causes of enterprises restructurings in Europe since 2002 — indicates, international relocations account for a small part of (actual or planned) employment losses: 6.3 % for

¹⁰ See also Mihoubi (2002).

France and 9 % for Europe as a whole. By contrast, internal restructuring and bankruptcy (and closure) are the main sources of employment losses (more than 85 % for both France and Europe)¹¹. Of course, one would like to know how many bankruptcies have been caused by international competition... which brings the subject of the study on the whole effect of international trade.

Second, North-North trade has different effects than North-South trade, and we would like to isolate the latter. However, that is difficult since part of the evolution of North-north trade is caused by North-South trade between third parties.

Hence, most of the studies we present try to measure the effect of international trade, as a whole, on French employment, even if we will try to isolate what they have to say on the effect of North-South trade whenever possible. Three types of studies exist and will be studied in turn:

- studies on the job content of trade;
- econometric studies;
- general equilibrium models.

To our knowledge, no study is based on micro-data survey over a long time period — in contrast with what exists for Germany¹². Furthermore, most studies focus on the effect of trade on employment rather than wages because of the assumed notion that the French labour market is regulated in such a way that competitive pressures should have quantity effects rather than price effects.

2.1. Job content of trade

The "job content of trade" is by far the most widely used method for evaluating the impact of international trade on French employment. The basic idea is that exports constitute additional production for the domestic economy, and hence induce job creation, while imports are substitutes to domestic production and hence induce job losses. The difference between "job creation" and "job losses" is then attributed to international trade. Empirical estimates consist thus in computing the average "job content" — i.e. labour requirement of production *in the domestic country* — of both exports and imports. For exports, most studies not only consider direct employment embodied in production but also indirect employment embodied in the production of intermediate inputs.

¹¹ European Monitoring Centre on Change (2005).

¹² Marin (2004).

For imports, the usual assumption is that of a substitution between domestic and foreign production in *value* — i.e. one euro of imports substitutes to one euro of domestic production — rather than in *volume*¹³ — i.e. a pair of foreign shoes substitutes to a pair of domestic shoes. The assumption of substitution in value is not really restrictive as long as international trade of France is predominantly oriented towards developed countries: in that case, the unitary price and quality of goods imported from abroad and produced domestically is roughly similar. As, in 1997, developed countries accounted for 79 % of French imports (75 % of French exports), with figures reaching 90 % in many sectors, the value hypothesis is not too much of a problem to measure the global effect of international trade. However, the value hypothesis is much more a problem when one tries to measure the effect of French trade with developing countries. Due to price differentials, substitution in volume is much more plausible. Insofar as we are looking primarily into these effects, one should favour this latter hypothesis.

There are other difficulties. The results are strongly influenced by the sign of the trade balance. As a result, trade balance disequilibria are sometimes corrected to compute only the structural effect of external trade on domestic employment. When this is the case, estimates are based on theoretical balanced trade flows. Finally, the counterfactual situation used for comparison is "autarky". The definition of autarky is very restrictive: it is assumed to have no impact on the nature of goods produced, prices, wages, productivity and consumption. To sum up, while this method has the advantage of simplicity, its drawbacks are numerous: lack of strong theoretical grounds, strong assumptions related to the counterfactual situation, assumption of homogeneity between foreign and domestic goods, use of an average coefficient rather than a marginal coefficient etc¹⁴.

¹³ This opposition between value and volume is different from the usual one which takes into account the evolution of prices through time.

¹⁴ See, for instance, Messerlin (1995) or Jean (2001) for a discussion.

Table 7: Studies using the “job content of trade” method

| Source | Data | Methodology | Estimation | Results |
|----------------------------------|--|---|---|--|
| Gallais and Gautier (1994) | France 1993 | Job content of trade | Role of trade in the development of employment | 1993 : + 270,000 |
| Vimont and Farhi (1997) | France 1991, 1993 and 1996 | Job content of trade in manufactured goods | Role of trade in the development of employment | 1991: -219,000 1993: + 59,000 1995: + 115,000 |
| Cortes and Jean (1997b) | France 1993 | Job content of trade in manufactured goods | Role of trade in the development of employment | 1993: +122,000 |
| Guimbert and Levy-Bruhl (2002) | France 1983-1997 | Job content of trade in manufactured and agricultural goods (compares with older studies) (Substitution in value for almost sectors) (average coefficient of exporting firms) | Role of trade in the development of employment | 1983-1990 : -441,000 jobs 1990-1997 : + 492,000 jobs 1997:+550,000 |
| Bonnaz, Courtot and Nivat (1994) | France 1991 | Job content of trade in manufactured goods (only six sectors taken into account in imports) (trade with developing countries) | Role of trade with developing countries in the development of employment | If substitution in value: + 130,0 If substitution in volume: -330,0 |
| Messerlin (1995) | France 1980-1992 | Job content of trade (Substitution in volume for almost all sectors) | Role of international trade on employment | All trade 1980-1992: +0,8 % Intra-EC trade 1987-1992: +0,28% Extra-EC trade 1987-1992: -0,5% |
| Kucera and Milberg (2003) | 1978-1995 for 10 OECD countries (including France) | Job content of trade in manufactured goods (substitution in volume) | Role of total trade ; trade with OECD countries and trade with non-OECD countries on employment | Whole trade :-110,0 (-2 % relative to 1978-80) OECD trade : 112,0 Non-OECD trade : -222,0 |

The seven empirical studies based on "job content of trade" method as reported in table 6 differ in terms of sample (period, total *versus* manufactured trade, all *versus* developing partners) and methodology (substitution in value *versus* volume, treatment of trade balance disequilibrium etc.). Nevertheless, it is possible to summarize their main results as follows. First, in all cases, the estimated net impact of international trade on total French employment is *modest* and, on average, *positive*. That is, international trade tends to be a net creator of jobs over a long time period, even if the net creation of jobs accounts for less than 1 % of total employment. Second, the negative net impact of international trade on jobs is generally concentrated on the end of 1980s/beginning of 1990s and due to trade with developing countries. After 1992, all the studies agree to indicate the positive impact of trade on French

employment. Third, different sectors are unevenly affected by international trade. Most losses are concentrated in traditional industries (shoes and hosiery) and some in natural-resources intensive industries. That seems to suggest that, even if the net impact of international trade on French labour is positive in the long-run, temporary job losses can occur following an "openness" shock with developing countries, as in 1987¹⁵.

Only three studies compute the specific effect of trade with developing countries — with different definitions of these countries. They suggest this trade caused 150,000 to 330,000 job losses. However, these results need to be confirmed by more robust methods. This can be done either in an empirical way or a theoretical way.

2.2.Theoretical models

It is possible to build models taking into account all the different effects that make a simple job content evaluation unreliable. We know of two examples in the case of France, reported in table 7.

Table 8: Studies using models

| Source | Data | Methodology | Estimation | Results |
|-------------------------------|------------------|--|--|---|
| Mathieu and Sterdyniak (1994) | France 1973-1991 | Macroeconomic model for general equilibrium effects. Alternative scenario: developing Asia growth at the same speed than the OECD | Role of trade with developing Asia on the development of unemployment | +0.5/+0.6 point of unemployment |
| Jean (1999), p. 154-155* | France 1977-1993 | Computable General Equilibrium Model taking into account North-South trade, technical progress and qualification development in the population | Role of the increase of French trade from 1977 to 1993 on unemployment | + 2 points of unemployment Trade with the South : < +1 point |

* See also : Jean (2001), p. 13, Jean and Bontout (1999), Cortes and Jean (1997a), Jean (2002).

It is worth mentioning that, despite the differences in methods, both studies find similar orders of magnitude for the effect of trade with developing countries on unemployment: a rise of at least 150,000 and probably at most 300,000.

¹⁵ The share of developing countries in world trade doubled from 1987 to 1997.

2.3. Econometric studies

Another approach is mainly empirical¹⁶. Three main factors can explain employment changes — either the decrease of the share of industrial production in total employment or of the share of unskilled workers in total employment — in developed countries: (1) the technical progress; (2) changes in demand and (3) international trade. Econometrical studies presented in table 8 try to isolate the true impact of international trade, including outsourcing activities, on employment. To analyse the different causes, the assumptions are that technological progress explains the shifts of labour demand towards skilled workers *within* industries; changes in domestic demand explain the shifts of labour demand towards skilled workers *between* industries; and finally, international trade is assumed to be detrimental to unskilled workers as soon as France imports from developing countries, where labour costs are lower. Controlling for *internal* factors allows for more accurate estimates of the true impact of *external* factors on French employment.

Table 9: Studies using an econometric method

| Source | Data | Methodology | Estimation | Results |
|---------------------------|--|--|---|---|
| Bazen and Cardebat (2001) | France 1985, 1989 and 1992 | Econometric study per sector | Role of international trade (measured as relative import prices) on relative unskilled employment | 1985-1989: Trade => Decline in relative unskilled employment, not wages 1989-1992: Trade => Decline in relative unskilled wages, not employment |
| Strauss-Kahn (2003) | France, 1977-1993. | Econometric study per sector | Role of international vertical specialization (defined as the share of imported inputs in production) in the decline of unskilled workers (in total manufacturing employment) | Share of imported inputs in production: from 9 % (in 1977) to 14 % (in 1993) Shift away from unskilled labour : 0.65-0.7 percentage points/year (0.5-0.6 for manufacturing sectors) Contribution of international vertical specialisation in the decline of unskilled workers in manufacturing employment : 11-15 % over 1977-1985 and 25 % over 1985-1993. |
| Boulhol (2004) | 1970-2002 for 16 OECD countries (including France) | Econometric study, including GDP/head; (GDP/head) ² ; Investment/GDP; Industrial trade balance; firms' outsourcing rates. | Role of emerging countries' industrial imports in the change of the industrial share of employment | No break in the data. FMI method (Rowthorn and Ramaswamy (1999)): 10 % for France (15 % for the average OECD countries) New method (correction of autocorrelation): 1.9 % for France (3.4 % for the average OECD countries) |

¹⁶ We only mention here macro-econometric studies. To our knowledge, the only microeconomic, firm-level, effect of international trade on employment: Biscourp and Kramarz (2003).

Bazen and Cardebat (2001) show that the effect of trade with low-cost partners (proxied by the changes of relative import prices) changed in the late 1980s: from a job-destroying influence to a wage-depressing one. However, they do not provide enough elements to estimate the total effect of trade on the unskilled share of employment and relative wages.

Strauss-Kahn (2003) tests econometrically the extent to which international vertical specialisation explains the decline in the relative demand for unskilled labour in the French manufacturing sector over 1977-1993. Vertical specialisation is the completion of the different production stages of a good in different countries. Strauss-Kahn measures it as the value of directly imported inputs embodied in goods produced, using data from input-output tables. As she uses French statistical aggregates, she has to divide workers in the French manufacturing sector following occupation rather than education. This produces a division between skilled and unskilled workers that is roughly equivalent to the US white-collar/blue collar division. She finds that, while international vertical specialisation has increased from 9 % in 1977 to 14 % in 1993, its contribution to the observed decline in the relative demand of unskilled workers was relatively low. Nevertheless, this contribution increases over the time sample, from 11-15 % in 1977-1985 to 25 % in 1985-1993¹⁷.

The Fontagné and Lorenzi report¹⁸ has given a lot of publicity to the results of Boulhol (2004). He tests econometrically the extent to which (industrial) imports from emerging countries contribute to "deindustrialisation" (that is, changes of industrial employment in total employment) for 16 OECD countries over 1970-2002. Moreover, he is interested in testing if the acceleration of imports from emerging countries observed since 1987 has changed the value of estimated parameters. Following Rowthorn and Ramaswamy (1999), the dependent variable is the variation of the share of industrial production in total employment. The explanatory variables are GDP per capita, the square of GDP per capita, industrial imports from emerging countries in percentage of GDP, investment in percentage of GDP, the trade balance for industrial goods and the rate of externalisation by firms measured as the share of inputs in production. In a first application of this method, he shows that the imports from emerging countries contribute to 15 % of the decline in industrial employment for OECD sample, and to only 10 % for France. Correcting for autocorrelation yields even smaller estimates: respectively 3.4 % and 1.9 %. Moreover, the coefficient of imports is constant

¹⁷ This result is consistent with Goux and Maurin (2000) who find that around 2/3 of the decline of the unskilled labour is due to changes in the industry composition of domestic demand for goods and services and that international trade (and technical progress) have played only a minor role.

¹⁸ Fontagné and Lorenzi (2005).

between the pre-1987 period and the post-1987 period. However, due to the acceleration of imports from developing countries in 1987, the losses of industrial employment caused by imports are larger after 1987 than before 1987. Finally, he concludes that the decline of industrial employment in France is mainly due to internal factors, e.g. the low rate of investment in France compared to the United States.

Rowther and Ramaswamy (1999) explain 150,000 manufacturing job losses by trade with developing countries. If Boulhol is right, these losses only numbered 30,000. This is the lowest estimation we have found so far. Without going into the precise examination of the econometrics, it is possible that part of the decline in French investment is due to international relocation outsourcing.

Conclusion

One difficulty in drawing conclusions from this review is that few estimates are based on recent data. Most of studies do not cover the ten last years. That makes drawing robust conclusions and extracting insights for future developments of the French labour markets difficult. Estimation of the job losses due to trade with developing countries vary between 150,000 and 300,000, with an outlier at only 30,000. That represents only between 10 and 20% of the total industrial job losses since thirty years (between 15 and 30% if one excludes domestic outsourcing and temporary employment).

However, trade with a group of countries cannot be taken in isolation: trade between the developed and developing countries in general can have an impact on trade between France and other developed countries and should hence be taken into account. The review suggests that most French employment developments were not related to international trade as a whole — including international relocations and trade with developing countries — but had domestic causes: low investment, skill-biased technological process and demand shifts. Hence, technical progress and internal factors explain the bulk of the decrease in industrial production and employment that frightens the public so much.

This does not mean that trade cannot have a temporarily negative effect on employment, as happened in the late 1980s. It does not mean either than some categories do not suffer particularly because of trade, as did unskilled workers. Nevertheless, if we assume that the contribution of international trade to French employment developments over the 1980-95 period is representative of effects of a growing openness to trade, the following prospective features emerge: first, even the temporary adverse effect in the future of deeper integration

with CEECs, including vertical foreign direct investment, will be limited since both European Association Agreements and foreign direct investment liberalisation in the 1990s have already induced most of the adjustments. However, stronger trade flows with emerging countries (China, India, etc.) will probably have an adverse impact on French labour market in the next few years, especially for unskilled workers in specific sectors. The traditional sectors, like textiles, are already much reduced compared to what they were in the 1970s, and they will probably not disappear completely as some niche markets can be developed: other sectors may be threatened. There will be individual, sectoral and territorial net losses that warrant cushioning from the community, maybe as a redistribution of part of the sizeable gains offered by trade for consumers.

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II. OFFSHORE OUTSOURCING IN THE EU FINANCIAL SERVICES INDUSTRY

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The main objective of this paper is to investigate and to establish what are the facts and implications about offshoring and outsourcing in the financial sector. Offshoring of services has received an enormous amount of attention in the political circles in recent times. Let alone its consequences, offshoring does not appear to be widely understood. Therefore, we thought it would be useful to examine this phenomenon to distinguish facts from exaggerated claims.

Given the attractiveness of the phenomenon and the potential implications for competitiveness, there is a need for more analysis on the corporate strategies underlying this trend. In that way, our study will describe the offshoring phenomenon from the financial sector point of view. Why this sector? Although offshoring is a trend across all sectors, several consulting studies have shown that offshoring and outsourcing scenes are currently dominated by banks.

Introduction

International relocation of services has received an enormous amount of attention in the media and political circles in recent times. In just five months, between January and May 2004, there were 2634 reports in US newspaper on service offshoring, mostly focusing on the fear of job losses. Firms have been accused of “exporting jobs” to developing countries. These concerns are not limited to the United States. The debate is equally vigorous in Europe where the threat of competition from Eastern Europe and China is raising intense anxieties. For example, 380 reports on international relocation appeared in UK newspapers during the same period¹.

All this media hype would lead one to believe that offshoring is some new phenomenon that has exploded. What is new about offshoring today is that it is increasingly in services. The growing relocation of services in industrial countries is a reflection of the benefits from greater division of labour and trade that have been described for manufactured goods since the

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¹ According to a report by Roland Berger Strategy Consultants and UNCTAD (2004), UK companies represent more than 60 percent of all service jobs offshored (in terms of total volume). It is the first comprehensive survey

time of Adam Smith and David Ricardo. In the past, the service sector was largely considered impervious to international competition. With improvements in communication technologies, such as the Internet, services can now cross national borders. Although service offshoring still remains a small fraction of individual countries' GDP (Amiti M. and S.J. Wei, 2004a), it is without a doubt the newest chapter in the globalisation debate.

But offshoring, let alone its consequences, does not appear to be widely understood. Some people interpret it to mean outside the firm, and others outside the country. Media and political attention seems firmly focused on offshore outsourcing, even though domestic outsourcing is also common. So, the nations still have much to learn about offshoring, and existing data is not adequate to the task. There are currently no reliable statistical indicators of the extent or the nature of offshoring. Besides management consultant reports², there is indeed very little empirical economic research on service offshoring. Most of the studies carried out so far have been in the United States. Therefore, we thought it would be useful to examine this phenomenon to distinguish facts from exaggerated claims.

Drawing on the experiences of the United States, we can say that, in the aggregate, job losses in one industry often are offset by jobs created in other growing industries (Amiti M. and S.J. Wei, 2004b; Brainard L. and R. Litan, 2004; Schultz C., 2004). Moreover, American economists argued that international relocation contributes to lower inflation and higher productivity, meaning that the overall economy will grow faster (Mann C., 2004; Council of economic advisors, 2004). Catherine Mann (Institute for International Economics) has estimated that US GDP growth would have been lower by 0.3 percent a year between 1995 and 2002³ without international relocation of jobs in information technology (Mann C., 2003).

on the offshoring strategies of leading European companies (polled a representative sample covering more than 20 percent of total revenues of Europe's top 500 companies).

² Looking forward, perhaps the best-know projection is by Forrester Research (2004), an information technology consulting firm, which expects the number of US jobs outsourced to grow from about 400.000 in 2004 to 3.3 million by 2015. If this estimate turns out to be accurate, then offshoring could result in roughly 250.000 layoffs a year. Goldman Sachs has estimated that offshoring has accounted for roughly half a million layoffs in the past three years. According to the McKinsey Global Institute (2003), for every dollar of US services activity offshored, a net gain of 12 to 14 cents is generated. Another Forrester Research report states that offshore service spending in Western Europe will grow from 1.1 billion in 2004 to 3.6 billion euros in 2009, with the United Kingdom accounting for 76 percent at that point. The IT consultancy firm, Gartner (2003), estimates an ultimate growth of 40% in offshore outsourcing in Europe. Gartner also predicts that almost a third of leading European businesses will include an offshore element in their IT plans by 2005. As a result of this shift of IT services overseas, up to 25 percent of EU and US IT jobs could go to the emerging markets by 2010. But Gartner predicts that the new European countries will become popular for "nearshore" outsourcing of some operations.

³ Indeed, lower inflation and higher productivity have allowed the Federal Reserve to run a more accommodative monetary policy.

Concerning Europe, the European Monitoring Centre on Change (EMCC) has published data⁴ for major European company restructuring since the beginning of 2002. Results from January 2002 to December 2004 are presented in *Table 1*. As in the case in the US economy, “Relocation” is directly responsible for only a very minor part – 3.6 percent – of large-scale job losses in European countries, although like in the US, offshoring may be included in other categories such as “Outsourcing” or “Internal restructuring”. Considering the extent of political tension regarding international relocation, it is remarkable that these data – with their significant caveats and limitations – indicate that the phenomenon has a relatively small effect on both US and European labour markets, relative to other sources of job losses. Although the significance and implications of this finding may be restricted, the finding demonstrates that the political storm from offshoring has little to do with the sheer number of job losses.

Table 1. Job losses associated with major European firm restructuring

| <i>Type of restructuring⁵</i> | <i>Planned job reductions</i> | <i>% planned job reductions</i> | <i>Number of cases</i> | <i>% of cases</i> |
|--|-------------------------------|---------------------------------|------------------------|-------------------|
| Internal restructuring | 832.345 | 78.4 | 1.068 | 60.7 |
| Bankruptcy/Closure | 129.133 | 12.1 | 371 | 21.0 |
| Relocation | 38.471 | 3.6 | 122 | 7.0 |
| M&A | 52.686 | 5.0 | 65 | 3.7 |
| Outsourcing | 8.636 | 0.8 | 26 | 1.5 |
| Other | 850 | 0.1 | 5 | 0.3 |
| Total | 1.062.121 | 100 | 1.657 | 100 |

Source: European Restructuring Monitor (2005).

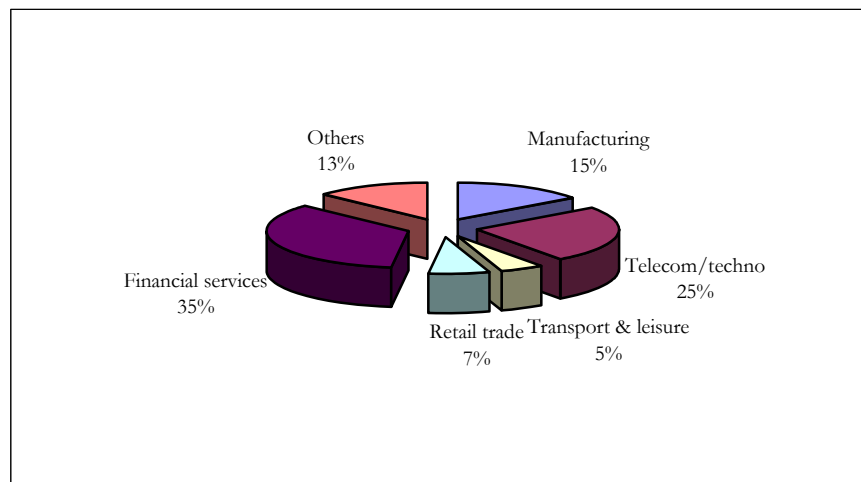
The current offshoring debate is highly charged, both emotionally and politically. Yet the discrepancy between the public perception and actual magnitude of this issue is quite considerable, calling for a more objective approach to the subject. While service offshoring has become established practice and has already been addressed by various studies for the US, it has only recently attracted public attention in Europe. Given the attractiveness of the

⁴ These data include restructuring that affect at least one EU country and entail an announced or actual reduction of at least 100 jobs. Cases are identified through a press review of daily newspapers and business press in the 15 old EU Member States. Almost 80 percent of the total volume of services jobs offshored is involving less than 300 jobs per project (Roland Berger and UNCTAD, 2004).

⁵ Types of restructuring: *Relocation*, where the activity is relocated to another country of the European Union of beyond its borders; *Outsourcing*, where the activity is subcontracted to another company which may or may not

phenomenon⁶ and the potential implications for competitiveness at all levels of development in Europe, there is a need for more analysis on the corporate strategies underlying this trend. In that way, our study will describe the offshoring phenomenon from the European financial services industry point of view. Why this sector? Although international relocation is a trend across all sectors, several consulting studies have shown that the offshoring scene is currently dominated by banks and other financial services firms (*see Chart 1*).

Chart 1. Offshore market distribution by sector



Source: Deloitte Research (2004).

In the financial services industry, outsourcing has been in use for quite some time. For example, since the 1970s, financial institutions have used outside firms for such clerical activities as printing customer financial statements and storing records. As Information Technologies (IT) evolved during the 1980s and 1990s, financial services firms began to outsource a great variety of IT activities as means of lowering their costs and gaining faster access to up-to-date technology. Currently, more strategic areas are also becoming subject to outsourcing. As attention turned increasingly to efficiency and the need to focus on core businesses and as transaction costs started to drop (i.e., outsourcing service providers were

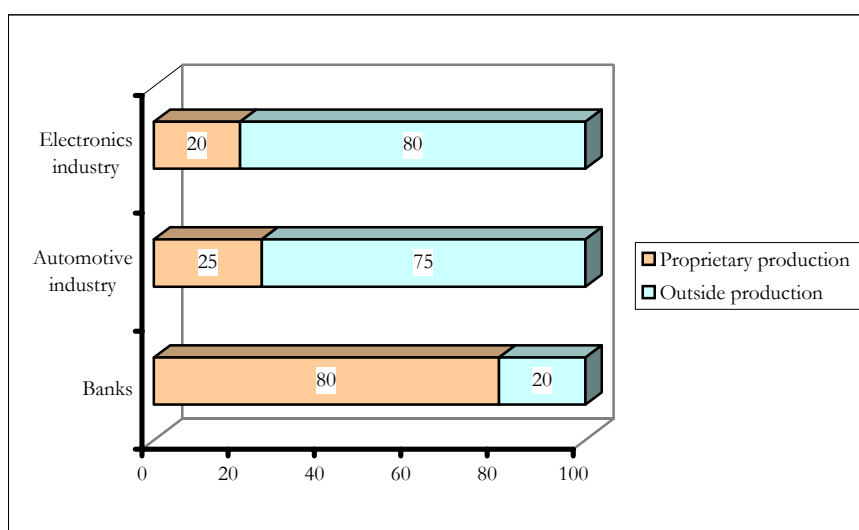
be located within the European Union; *Internal restructuring*, where the company undertakes a job-cutting plan in order to cut costs and remain competitive.

⁶ According to Roland Berger and UNCTAD report (2004), more than 40 percent of companies polled have relocated services in the past. Regarding future activities, almost half of all companies are planning to offshore (further) services within the next years. Companies that have offshored in the past are generally the ones that are also planning to offshore in the future.

able to reduce costs), financial institutions started to outsource a growing share of their activities⁷.

The financial services firms have several common features that might predispose them toward using a large degree of outsourcing. Specifically, in the course of their businesses, they handle large volumes of information, in both paper and electronic form, and they typically provide customers with a wide variety of related services. The sheer volume and breadth of these activities present compelling reasons for outsourcing particularly to technology service providers that have developed expertise in specific business applications. Moreover, the high potential to “industrialize” is one of the main reasons for outsourcing in financial services. Banks tend to be much stronger vertically integrated than the manufacturing sector. German banks, for example, create 80 percent of their products and services themselves, compared with 25 percent in the automotive sector (*see Chart 2*). Concentrating on core competencies not only helps to cut costs but also to gain strategic advantages.

Chart 2. Vertical integration of different sectors in Germany



Source: Deutsche Bank Research (2004).

Financial institutions are under constant pressure to cut cost while simultaneously increasing revenue in a context of increasing competition. In response, many are shifting

⁷ See McKinsey Global Institute (2002), for a review of the outsourcing behaviour of over 30 institutions in Western Europe for 11 specific ICT-related. The study find the market for outsourcing in European banking is large and rapidly expanding.

more and more business processes to countries like India and China with dramatically lower wage rates. This practice, known as “offshoring”, is fundamentally changing the way financial institutions do business. In 2003, Deloitte Research (2004) estimated the number of offshore jobs in financial services had increased by a factor of five. More important, offshoring has created a truly global operating model for financial services, unleashing a new and potent competitive dynamic that is changing the rules of the game for the entire industry.

The main objective of this paper is to investigate and to establish what are the facts and implications about outsourcing and offshoring in the EU financial services industry. Section 1 defines briefly the various concepts. Section 2 describes a set of recent stylised facts in the financial services industry. Section 3 first depicts business models used and activities subject to outsourcing, and then proposes the corresponding motives cited by the European banking sector. Finally, section 4 expresses EU banks’ opinions on the risks of outsourcing and what regulators do to mitigate these risks. These two sections are mainly founded on a March-April 2004 survey of 82 individual banks⁸ from nineteen EU countries and the aggregated answers from 24 European supervisory authorities.

Section 1. Definition: What’s in a name?

Before we explore the magnitude of the international relocation trend in the EU financial services industry, it is useful to distinguish between two different terms frequently used interchangeably in the debate: Outsourcing *vs* offshoring. A common misperception exists (*see Table 2*).

“Outsourcing” – the *legal dimension* – refers to firms purchasing services from outside specialist providers. It is, in other words, “subcontracting”. Conversely, the word “In-sourcing” refers to the production of something inside a company. This type of activity is as old as at least the industrial revolution, and basically refers to firms specialising in what they do best and leaving the rest to others. It is a crucial process in which firms engage to remain cost-competitive and raise productivity. A specific feature of outsourcing is that the direct control over these operations is shifted to an external service provider, which can be an intra-group company or an independent third party. However, in the current context of rapid organisational change, determining what is “internal” and “external” is increasingly difficult.

⁸ This survey was conducted by the authorities represented in the BSC (ECB, 2004). Each Member State was asked to survey a maximum of five banks. Banks were selected to reflect both large and small banks, without prejudice to the importance and role of outsourcing in their organisation.

“Offshoring” – the *geographical dimension* – is in vogue and refers to relocation of activities beyond national borders⁹. Often these activities are carried out by outside providers located to lower-cost countries (offshore outsourcing), but this organisational distinction need not necessarily be the case. They can also be provided from within the company itself (“captive” offshoring), for instance by subsidiaries or company units abroad, or by joint ventures and strategic alliances. The growth of services offshoring is linked to the availability of reliable and affordable communication infrastructures. Offshoring is part of a country’s imports (good and services).

Table 2. Relocation of activities according to geographic and legal boundaries

| | <i>Within a country (domestic)</i> | <i>Between countries (abroad)</i> |
|--------------------------------|------------------------------------|-----------------------------------|
| <i>Within a firm (inside)</i> | Insourcing | “Captive” offshoring |
| <i>Between firms (outside)</i> | Outsourcing | Offshore outsourcing |

Source: Euroframe (2005).

While outsourcing has occurred for many years, offshoring is a relatively recent phenomenon. At least four factors have driven the recent rapid rise in offshoring: Technological innovation, free trade, possible cost savings and access to a large pool of skilled English speaking labour abroad.

We found it useful to differentiate the potential benefits of outsourcing and offshoring. Each of these models, which can be applied independently or combined, has distinct advantages in specific situations and provides different sets of benefits. For example, “captive” offshoring is likely to be more attractive where the issues of control and confidentiality matter. But, firms more focused on general cost-cutting are likely to make more widespread use of external agents (outsourcing or offshore outsourcing strategies).

⁹ Cooperation between partners on the same continent is termed “Nearshoring”.

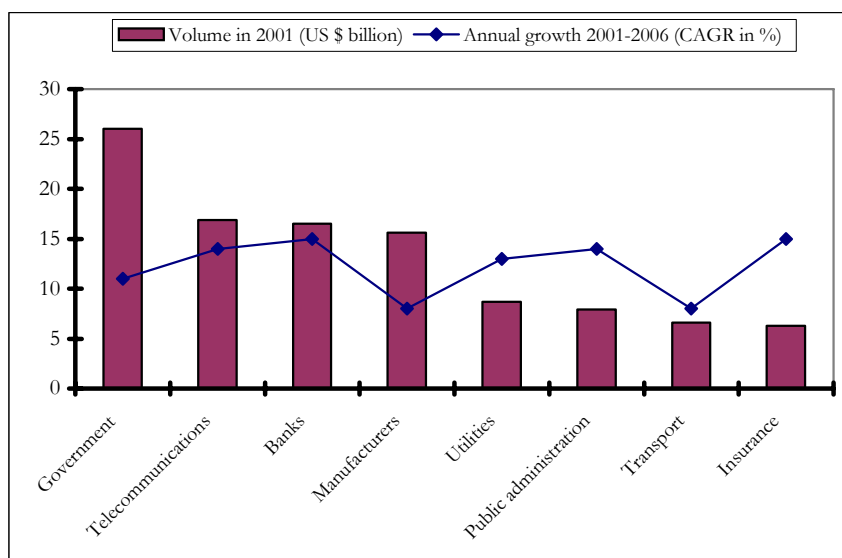
Section 2. General trends in the financial services industry

2.1. Outsourcing

The financial industry has a long tradition of outsourcing but public interest has developed only in the last few years. The number of outsourcing contracts in the financial services industry rose from 2 in 1991 to an estimated 52 in 2003. Banks were pioneers in this field and still account for the lion's share. However, insurance companies have been catching up, particularly since the turn of the millennium.

Outsourcing continues to play a major role in the financial services industry. Compared with other sectors, banks and insurance companies show the strongest dynamic in outsourcing (*see Chart 3*). According to Roland Berger (2004), outsourcing in Western Europe's financial industry will grow by 15% per year up to 2006. More and more IT are outsourced by the financial sector. As technology has evolved, outsourcing of information services has become more common. IT infrastructure made up two-thirds of the global outsourcing deals between 1990 and 2003 (measured by value of the deal).

Chart 3. Outsourcing in different sectors / Western Europe

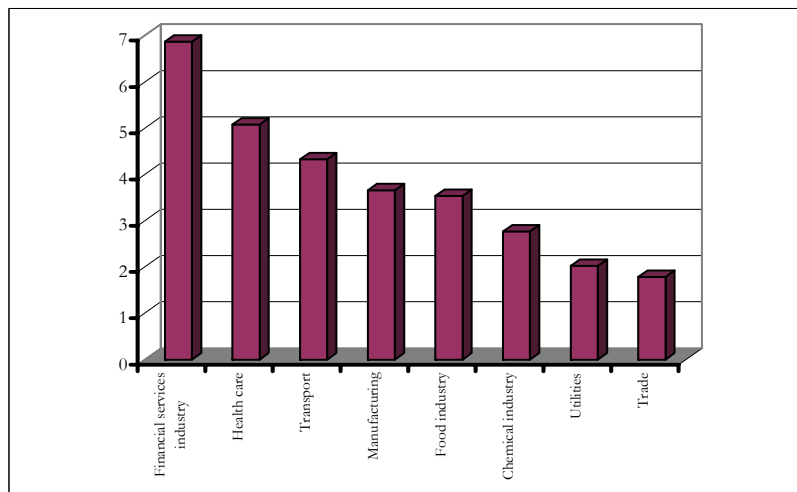


Source: Roland Berger (2004).

Relatively speaking, the financial services industry has the largest IT budgets (*see Chart 4*) and IT spending for the Western European banking sector will have an average compound annual growth rate of 5.6 percent between now and 2008 according to Celent Institute (2004). IT plays a major role in banking industry and it will even gain in importance in the future as

the number of electronic cash transactions is still growing. The IT-driven transformation of banks has not yet come to an end. Financial services firms give priority to their IT organisation's potential to reduce the company's overall operating costs and improve the productivity of the workforce.

Chart 4. Relative IT spending in different industry (% of revenue)



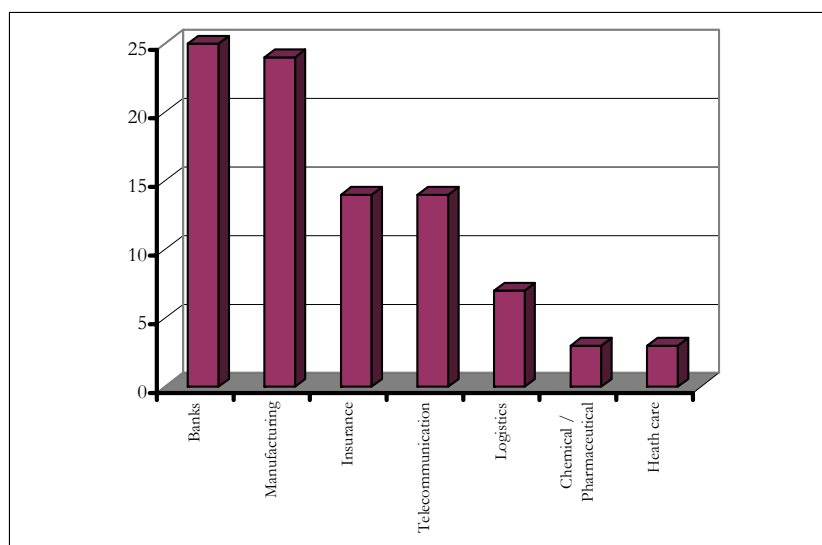
Source: Deutsche Bank Research (2004).

Recently, we also have seen a growth of outsourcing in more strategic areas such as human resources, accounting/finance and “business processing outsourcing” (BPO), i.e. outsourcing of a business line or process in its entirety. BPOs also mean that the relationship between the outsourcer and the third party changes somewhat as the latter becomes more a strategic partner than a traditional supplier. Such growth could be seen as part of a trend away from outsourcing of specific tasks towards more strategic operations.

2.2. Offshoring

While offshoring is a trend across all sectors, the financial services industry in particular is keen to relocate processes and job to low-cost destinations (*see Chart 5*) and it can achieve the greatest savings from offshoring operations. Since insurers first and banks second typically have a plethora of IT-based processes and corresponding costs, they harbour the biggest cost-savings potential to be tapped *via* offshoring. Banks can save 8-12% of their overall costs, and insurers as much as 10-15%.

Chart 5. Sectors that tend to go offshore (% of industry)



Source: Deutsche Bank Research (2004).

Offshoring is not suitable for all tasks in the financial sector. But as offshoring gains momentum, financial institutions will likely move a broader range functions to lower-cost locations. Within few years, all types of business processes will be offshored and not just IT operations (applications development, coding and programming). Indeed, most kinds of services are potential candidates for future offshoring (transaction processing, accounting/finance, human resources, administration and call centres notably). There are less and less “sacred cows”.

India attracts most financial services companies. Several studies show around 80 percent of all financial service offshoring takes place in India. India’s scale, skills, culture and governance are the primary factors for its success in attracting financial services operations. Large internationally operating banks like HSBC, Citigroup and General Electric Capital employ approximately 22,000 people in India alone (*see Table 3* where approximate staff numbers are indicated in parentheses).

Anecdotal evidence suggests that China, Malaysia and the Philippines are also seen as desirable locations. In the future, we expect that offshore activity will extend around the Indian Ocean Rim, encompassing markets in South Africa, Malaysia, Australia, China and Singapore. There is also a general consensus in the literature that European enlargement has rendered the new Member States increasingly desirable locations for offshoring. Nonetheless, the “hub” market will be India, potentially accounting for as many as one million new positions from offshored financial services.

Table 3. Financial services companies in India (2003)

| | |
|----------------------------|-----------------------------------|
| ABN Amro (+ 300) | American Express (+ 1.000) |
| Axa (380) | Citigroup (3.000) |
| Deutsche Bank (500) | General Electric Capital (11.000) |
| HSBC (2.000) | JP Morgan Chase (480) |
| Mellon Financial (240) | Merrill Lynch (350) |
| Standard Chartered (3.000) | |

Source: Deloitte Research (2004).

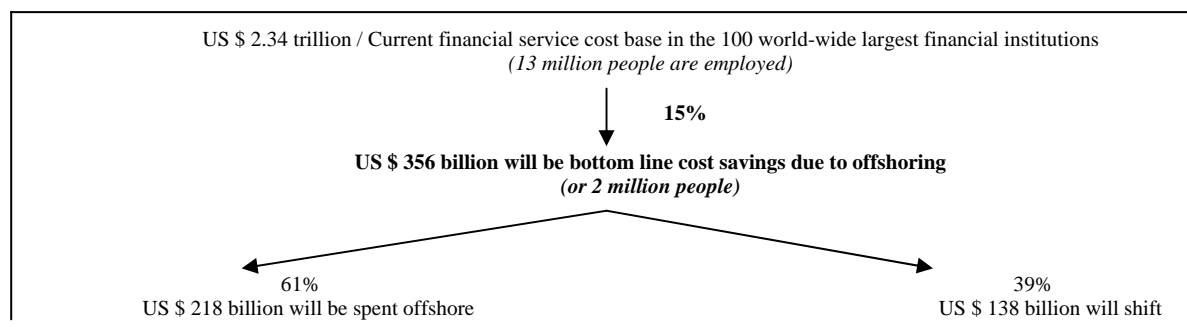
According to a report¹⁰ by Deloitte Research (2004), offshoring will continue to grow throughout this decade. The report estimated the percentage of global financial services companies with offshore facilities grew to 67 percent in 2003 compared with 29 percent in 2002, along with an estimated 500 percent increase in offshore jobs. By the year 2010, more than one-fifth of the financial services industry’s global cost base will have shifted offshore according to the survey. Meanwhile, the 100 largest financial institutions in the world – those with market capitalization exceeding \$10 billion – will have moved nearly US \$ 400 billion of their cost base offshore, reducing costs by 37 percent for each process relocated and saving each firm on average a little below US \$ 1.5 billion annually. By the end of 2005, it anticipated around US \$ 210 billion of the cost base will be offshore with average cost savings to be over US \$ 700 million for the largest 100. The report noted that the percentage for large firms was significantly higher than for small firms¹¹ and also indicated that increasingly firms are setting up their own operations offshore (“captive” offshoring), distinguishing this trend from the growth of outsourcing.

Deloitte Research (2003) also estimated that US \$ 356 billion of operating expenses (or 2 million people) would be relocated offshore in the global financial services industry within the next five years.

¹⁰ Deloitte’s second annual offshore survey *The Titans Take Hold*, 2004. The survey is based on responses from 43 financial institutions based in seven countries and included 13 of the 25 financial institutions in the world by market capitalization.

¹¹ 80 percent of the world’s largest financial institutions (i.e., those with market capitalization exceeding US \$ 10 billion) are already working offshore, with less than 20 percent keeping everything at home. For smaller companies, the number are split 50:50 between those offshore and those staying home. That disparity creates a significant cost advantage for the larger institutions and the gap is likely to get wider.

Chart 6. The global impact of offshoring over the next five years



Source: Deloitte Research (2003).

US banks, brokerage firms, insurance companies, mutual funds and other financial services firms are planning to relocate more than 500,000 jobs offshore¹² – representing 8 percent of their workforce – over the next five years, according to a study¹³ conducted by the global management consulting firm AT Kearney (2003). The international relocations will involve a wider range of internal functions than have typically been slated for overseas transfers, including financial analysis, research, regulatory reporting, accounting and human resources. “Any function that does not require face-to-face contact is now perceived as a candidate for offshore relocation”, said Andrea Bierce, the AT Kearney managing director who oversaw the study. The international relocations are expected to reduce annual operating costs by more than US \$ 30 billion.

Offshoring is changing the structure of the financial services industry, providing a truly global operating model that is significantly more cost-efficient and launching a powerful new competitive dynamic that is forcing financial institutions to rethink the way they do business. Offshoring is also creating a global division of labour that demands new operating models, new business structures and new management skills. The manufacturing industry experienced a similar transformation. This trend has taken twenty to twenty-five years in manufacturing. Witness the case of Levi’s, which started relocating production activities in the late 1970s and closed its final four factories in the US in 2003. We anticipate that financial services institutions are likely to see a similar transition, although, the industry is unlikely to fully replicate the trend in manufacturing due to the need to have greater customer contact.

¹² Celent Institute (2004) estimates that the US financial services industry will relocate potentially 2.3 million jobs within the next six years.

¹³ The study was conducted with approximately 100 financial services firms in the banking, brokerage and insurance sectors, and reflects the opinions of the industry executives.

Offshoring was initially driven by economic pressure and the need to cut cost. But lately offshoring has begun to undergo an important metamorphosis, transitioning from “something to consider” to “something that must be done”. In the early days, most companies opted for outsourcing. It was the fastest and easiest way to get started, and it required the least investment and limiting risk. However, now that offshoring is a standard business practice and increasingly becoming a fundamental components of the financial services business model, more and more firms are choosing a “captive approach” (retaining ownership and direct control through a wholly owned offshore subsidiary). There was a huge increase in “captive” offshoring over the last year and it looks to be the model of choice for the future. That is a clear sign offshoring has been accepted as a core element of the global business model for financial services.

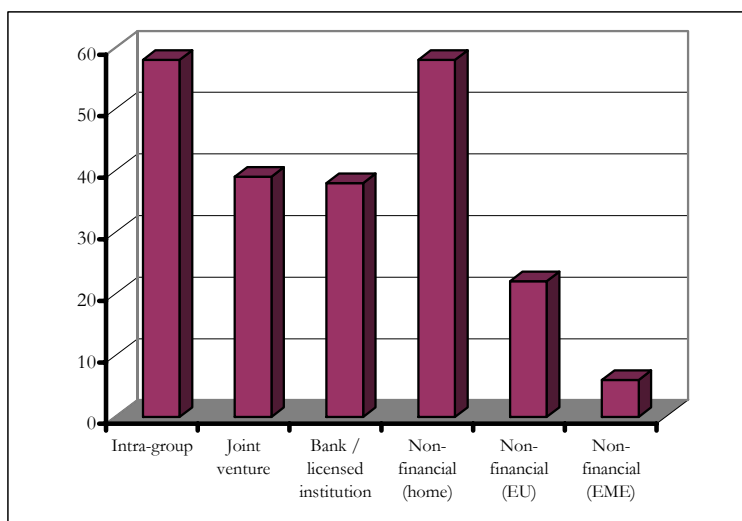
Section 3. Business models, activities outsourced and motives for the European banks

3.1. Business models

The *Chart 7* reports the scope of business models used in outsourcing. It shows that nearly two-thirds of the respondent banks apply “captive models” (intra-group, joint venture or strategic alliance). Purely intra-group solutions and local non financial companies are equally preferred. Moreover, banks often use different types of business models simultaneously, depending on the type of the outsourced activities. On average, two business models for outsourcing are used within a bank.

In contrast to the results of previous studies, the respondent EU banks do not seem to have outsourcing projects with providers in emerging market economies (EME) as offshore centres. In addition, only 25 percent of the respondent banks said they are considering future outsourcing to offshore locations. Around 60 percent of the banks surveyed said they definitely would not offshore activities.

Chart 7. Scope of business models (in %)



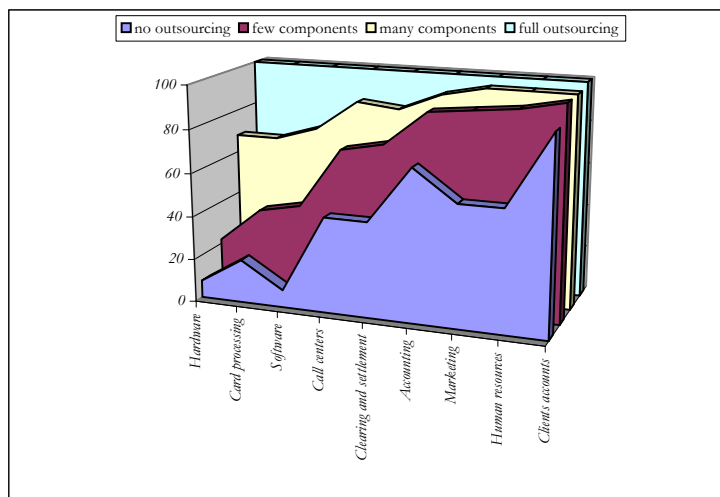
Source: European Central Bank / ECB (2004).

3.2. Activities and services outsourced

A look at the types of activities that are reportedly outsourced indicates that most are support activities, which in nearly 40 percent of the cases are significantly or completely outsourced. On the other hand, outsourcing of core activities such as treasury activities, risk management or asset management is very limited or non-existent at 80 percent of the banks. The identification of core competencies and which functions banking institutions need to retain in-house is becoming less clear-cut as firms extend the range of functions they outsource.

Banks are increasingly outsourcing activities that could potentially be considered core functions. But when banking institutions belong to larger group structures, core activities are often outsourced within the group. Concerning the support activities (*see Chart 8*), those most often outsourced include IT functions (hardware installation, maintenance, software development) and card processing. Nearly one-third of the surveyed banks had outsourced its telephone services to a call centres.

Chart 8. Relative importance of EU banks' support activities outsourcing (in %)

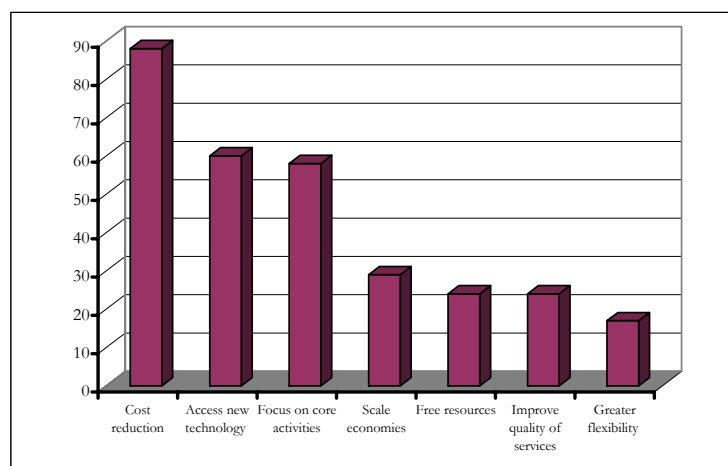


Source: ECB (2004).

3.3. Motives for outsourcing

Banking institutions may choose to outsource certain activities for various motives. According to the *Chart 9*, the first motive for outsourcing is cost reduction, cited by almost 90 percent of respondent banks. In second instance, around 60 percent of the banks' cited access to better technology/infrastructure and the strategy of focusing on core competencies.

Chart 9. EU bank's motives for undertaking outsourcing (in %)



Source: ECB (2004).

Almost 20 percent of the surveyed banks also said that outsourcing allows them to relieve resource constraints (i.e., when there is lack of internal staff or know-how), and improve quality of services. Indeed, outsourcing might be used to develop and provide new

customer services more quickly and reliably than is possible with only internal resources. Finally, in one out of six banks, generating a momentum for change or seeking to achieve greater flexibility throughout the organisation is seen as a valid motive for outsourcing.

Section 4. Risks associated with outsourcing and regulatory perspective

4.1. Risks of outsourcing for European banks

Although the benefits of outsourcing strategies are evident, in practice, many banks also consider that outsourcing introduces new challenges and risks. For example, failure to choose a qualified and compatible service provider, and to structure an appropriate outsourcing relationship, may lead to ongoing operational problems or even a severe business disruption. Most banks cite two to three different risks related to outsourcing.

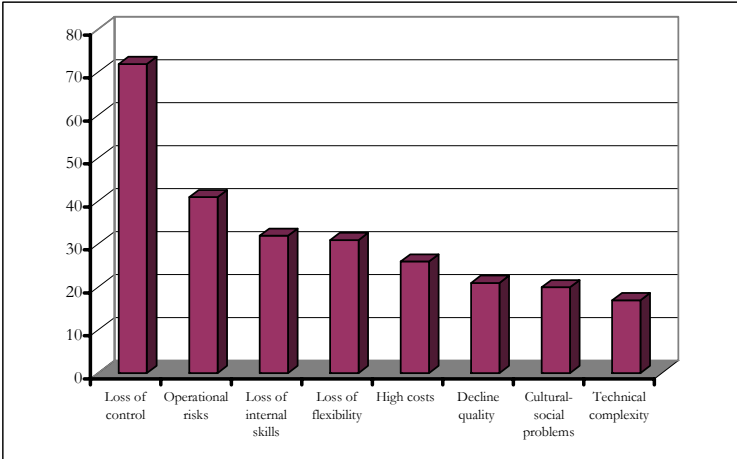
More specifically, almost 75 percent of the banks involved in the survey see a potential risk arising from the loss of control over the activities or services being outsourced, or from an undesirable dependency on the service provider (*see Chart 10*). The transfer of customer financial information to a service provider introduces the risk of potential violations of confidentiality, either due to security issues during the transfer itself or due to a provider's imperfect control environment. While the legal responsibility for such a violation may clearly reside with the service provider, the banking institution would not easily be able to avoid damage to its reputation (reputational risk).

About 40 percent see operational risks. Operational risk has been defined as the risk of monetary losses resulting from inadequate or failed internal processes, people, and systems or external events. While operational risk exists whether or not a firm outsources certain business activities, the transfer of managerial responsibility, but not accountability, *via* an outsourcing agreement to a third-party service provider introduces new concerns.

Around one-third of the banks fear that they might lose certain institutional skills/know-how or lose the flexibility to react to changes in customer behaviour or to changes in the economic environment, which can be seen as strategic risks. Furthermore, 20 to 25 percent of the respondent banks see outsourcing risks stemming from high costs and a potential decline in the quality level of service combined with a reduction of its competitive advantage (entailing a loss of customers). Cultural and social problem (i.e., resistance by current staff, differences between the bank and the service provider in understanding and approaching the customer, etc.) and technical constraints (i.e., due to technical complexity) are also quoted as relevant by several banks.

All those categories of risk apply to any outsourcing arrangements. But when outsourcing agreements are made abroad – a practice commonly referred to as “offshore outsourcing” – concerns regarding country risk factors are also introduced. Changes in foreign government policies as well as political, social, economic, and legal conditions in the country where the service provider is based or where the contractual relationship has been established could materially affect the outsourcing agreement.

Chart 10. EU bank’s assessment of risks to outsourcing (in %)



Source: ECB (2004).

Banks use different techniques to manage the above-mentioned risks. Notably, banking institutions apply a careful screening of service providers and limit the time duration contracts. Mutual shareholding as in a joint venture business model also can be seen as a natural risk mitigation technique, as it involves a closer cooperation on a larger commitment by both partners. Despite all possible risks attached to outsourcing, and consistent with earlier studies (Kakabadse A. and N. Kakabadse, 2002), most EU banks seem to be satisfied with the experiences they had so far with outsourcing¹⁴. The current survey shows that outsourcing arrangements achieved the expected results in around 75 percent of the banks. The remaining 25 percent indicated it was too early to tell whether outsourcing had created the expected value.

¹⁴ Some banks nevertheless pointed out some negative experiences, mainly involving a deterioration in the quality of the service (15 percent of the banks surveyed) and high costs or market power of the provider (12 percent of the banks surveyed).

4.2. The regulatory perspective

This section analyses briefly supervisory authorities' responses¹⁵ to what they saw as the most important risks related to outsourcing by banks in their country and how these risks have been mitigated through prudential regulation. The most important risks related to outsourcing as perceived by supervisors are indicated in *Chart 11*. It appears that 20 out of 24 supervisors are concerned about the fact that banks lose direct control over outsourced activities, and 19 out of 24 see potentially high operational risks (i.e., business continuity threat or operational failures).

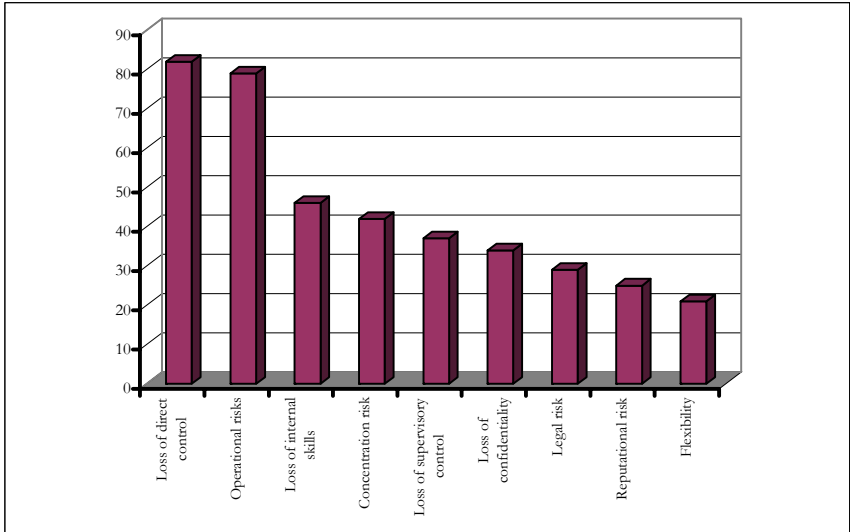
In second instance, about half of the supervisors appear to share concerns that banks may lose certain internal skills and that they become too dependent on a small number of outsourcing companies. Indeed, a high concentration in the market for outsourcing with only a few service providers may lead to an excessive dependence¹⁶ and high switching costs. Nearly one-third of the supervisors were concerned about confidentiality risks and the potential for their supervisory control to be hampered. Other concerns, such as legal risks¹⁷, reputational risks and reduced flexibility, seem to be more country-specific.

¹⁵ The survey was answered by the authorities of 24 out of the 25 EU countries that are represented in the BSC. The results show that the supervisory authorities have expressed various concerns over banks' outsourcing strategies.

¹⁶ This is especially true for specialised activities, but much less so for IT and basic functions.

¹⁷ Legal risk can take several forms, since outsourcing arrangements are based on binding contractual relationships. For example, the outsourcing contract might have a long duration during which the firm's business needs and environment could change in important, but unexpected, ways. Consequently, firms might get locked into agreements that reflect outdated business realities.

Chart 11. Supervisors’ concerns over outsourcing in banking (in %)



Source: ECB (2004).

Bank supervisors have already taken active approaches to deal with outsourcing in banking. In 16 countries, some form of regulation on outsourcing is in place. Most commonly, this takes the form of supervisory surveillance (the granting of inspection rights at the service provider), laws on internal control and adequate organisation to monitor and review the quality of activities at the service provider. In 6 countries, it is explicitly forbidden for banks to outsource (parts of) core banking activities such as the management of risks to external service providers. Some supervisors also require banks’ to inform them about their intention to outsource – either in advance or ex-post – and their implementation of outsourcing.

The regulatory environment is becoming stricter in response to the growing risks faced by the financial services sector. Outsourcing risk is increasing in the financial industry, especially as greater use is made of offshore outsourcing. The most important regulatory principle is that the outsourcing of an activity does not mean the outsourcing of responsibility. A financial services company that outsource a function must be accountable for that function. Not surprisingly, financial services companies (and their regulators) are extremely concerned about losing control over their businesses during the outsourcing process, given that this could have a serious impact on their reputation and competitive position. That is why regulators have increased their focus on making financial services companies mitigate outsourcing risks properly. High level principles are currently under discussion in the Committee of European Banking Supervisors (CEBS) and the Joint Forum.

European banking supervisors began work in 2002 on developing high level principles that could be used to help the convergence of supervisory approaches and practices in relation to outsourcing. They are based on a range of current practices and the common elements of policy that have been to date in various Member States. CEBS is proposing a three-tier classification of activities in a consultation paper: 1) Strategic or “core activities” which cannot be outsourced; 2) Non-strategic but “material activities”¹⁸, which should be pre-notified to the supervisory authority and 3) Non-strategic and “non-material activities”, which do not have to be pre-notified but for which the institution must remain responsible for ensuring any supervisory guidelines are still met (CEBS, 2004).

In February 2005, the Joint Forum¹⁹ releases outsourcing guidance for financial services firms. This report untitled *Outsourcing in Financial Services* develops a set of principles that give guidance to companies (banking, securities and insurance) and regulators to help them better mitigate risks without hindering the efficiency and effectiveness of firms. It focuses on establishing coherent policy and risk management programmes for outsourcing activities. The nine principles suggested can be grouped broadly into three categories. The first category refers to the policies that regulated financial services firms should have in place even before entering an outsourcing agreement. The second category addresses concerns surrounding specific outsourcing arrangements. Outsourcing relationships should be governed by written contracts that clearly describe all material aspects of the outsourcing arrangement, including the rights, responsibilities, and expectations of all parties. The third category addresses concerns specific to supervisors. Supervisors should take into account outsourcing activities as an integral part of their monitoring responsibilities. Supervisors should also assure themselves that outsourcing arrangements do not hamper the ability of the firm to meet its supervisory requirements (i.e., supervisors should be able to obtain promptly any relevant materials regarding outsourcing activities).

Outsourcing by financial services firms raises important concerns for both the firms and their supervisors. Specific supervisory efforts are currently in place and more are in development. However, such efforts will need to be flexible and will most probably be modified over time as the nature of these outsourcing arrangements evolves. The principles on

¹⁸ It is hard to make a clear distinction between “core activities” and “material activities”. A more pragmatic approach would be to consider that a firm may outsource any of its activities, on condition that it is capable of controlling the attendant risks.

¹⁹ A financial services policy group established by the Basel Committee on Banking Supervision, the International Organization of Securities Commissions (IOSCO), and the International Association of Insurance Supervisors.

outsourcing should therefore interfere to the lowest possible degree in the entrepreneurial freedom of financial services firms. Limitations need to be justified by increased risk and should be restricted to the minimum necessary to achieve the regulatory aim. We also suggest that offshore outsourcing should be studied further. Indeed, managing compliance risk is particularly difficult when offshoring is used. In order to avoid a duplication of inspection and control of outsourced services, supervisors should conclude cooperation arrangements according to which the authority, which has best access to the provider, will become active. A duplication of supervision by different authorities has absolutely to be avoided.

Concluding remarks

International relocation is a very important issue for European financial services industry and it will continue to increase in the next years. Technological progress and the imperative to cut cost within a rapidly changing markets (increasing competition, pressure of market consolidation...) require that financial firms more and more focus on their specific field of competence. Tasks and activities, which are not in the focus of business policy or which can be provided at considerably lower cost by foreign entity, are more and more delegated.

Then, offshoring is having an effect on the industry and is contributing to the rise of new business models. Offshoring has involved a new and potent competitive dynamic that is likely to reshape the world-wide financial services industry for the rest of this decade and beyond. Offshore outsourcing is also creating a global division of labour that demands new operating models and new business structures that is forcing financial institutions to rethink the way they do business. Nevertheless, financial services institutions must move cautiously.

Indeed, while offshore outsourcing presents all firms with important challenges, financial services firms face two interrelated challenges which are being heightened as they push outsourcing further into their business: firstly, the need to resolve the increasingly large regulatory requirements governing outsourcing and responsibility for compliance; secondly, the need to manage the risks associated with increasingly complex outsourcing arrangements. The latter issue has recently led to important developments in the supervision of financial services firms, particularly banking institutions.

Generally speaking, the offshoring debate will continue to rage for some time to come in the industrial countries. The challenge for policymakers is to make sure European people have the skills they need to compete successfully in the global economy.

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III. INTERNATIONAL RELOCATION AND DEINDUSTRIALISATION: SOME FRENCH PERSPECTIVES

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International relocation has become a topical issue in recent months, in France as elsewhere in Europe. The debate is not new, but while it was focusing 12 years ago on traditional industries and trade with emerging Asia, it includes now higher value-added goods and trade with CEEC's. The article deals first with the impact of international relocation on employment in Europe and the need for policy answers. A variety of strategies are then addressed: making France more attractive in a free market world, making France more competitive in line with the Lisbon Agenda, supporting growth through higher education, research and innovation spending; promoting innovating companies; implementing employment measures in favour of the lower skilled. Last, in a European context, should tax and social harmonisations be favoured? Should a French or a European strategy be implemented?

1. Introduction

General public debates on international relocation in the EU-15 generally focus on the process in its narrow sense: a company closing a plant in one of EU-15 countries while simultaneously opening a plant in a low-wage emerging country where it will produce goods at lower costs to be offered on the same market as previously. We will consider here relocation processes in a broader sense: production relocation from 'Northern' countries to low-wage economies, initiated by a 'Northern' company choosing to locate or to outsource part of or all its production in a Southern area; a 'Northern' company leaving its 'Northern' supplier of intermediate consumption purchases for a supplier in a southern country; a 'Northern' company of the trade sector leaving a supplier in a 'Northern country' for a supplier in a 'Southern' country; a 'Southern' company winning market shares over 'Northern' companies, first in its domestic market, then in third countries and finally in 'Northern' countries themselves. International relocation processes are difficult both to measure and to stop.

International relocation or in other words 'delocalisation' will be addressed in this paper from a French policy perspective. The issue was already very topical 12 years ago and

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focused on how to tackle relocation of traditional production industries, mainly textile (as well as shoe and leather) industries, from France to Asian newly emerging economies. At that time a number of politicians raised the issue of introducing fiscal measures to stop delocalisation (see Arthuis, 1993, Lauré, 1993). Among the ideas were: lowering taxation on low-skilled labour, introducing a social VAT, i.e. compensatory duties (*droits compensateurs*) on imports from developing countries (see Lauré, 1993, and, for a critical view, Mathieu and Sterdyniak, 1994).

International relocation and the domestic job losses involved became again highly topical in 2004, as elsewhere in Europe, with several reports being released: Fontagné and Lorenzi (2004), Grignon (2004) and Roustan (2004). The 2005 budget contains several measures aiming at promoting the attractiveness of specific French areas. It is worth noting that over the last 10 years, the policy debate has moved from supporting low-skilled employment in traditional industries to supporting high-tech industries and possibly employment in 'sheltered' services (see Letournel, 2004). Some French economists, like Messerlin (2004), think French labour, goods and services markets are too regulated and should simply be deregulated, with no other measures needed. But a majority of French economists think measures should be introduced either to support endangered industries or to favour the emergence of well-positioned industries.

Section 2 discusses the potential impacts of relocation from Northern to Southern countries and policy answers. Section 3 addresses global strategies aiming at promoting growth and competitiveness in line with the Lisbon Strategy based on research and innovation. Section 4 addresses proposals aiming at the promotion of top-priority sectors. Section 5 considers measures in favour of unskilled workers. Section 6 describes and discusses specific measures taken by the French government to stop relocation. Section 7 concludes.

2. Potential impacts of international relocation and policy answers

The emergence of low-wage countries in international trade has seven main impacts on Northern countries:

1. Imports from the 'South' rapidly increase their market share in Northern domestic markets, especially for goods requiring a high proportion of unskilled labour.
2. Southern countries rapidly increase their market share in Northern foreign markets, especially for goods requiring a high proportion of unskilled labour.

3. Southern countries increase their imports of capital intensive or skilled-labour intensive products made in Northern countries.

4. The low prices of Southern produced goods reduce price levels in Northern countries and thereby increase consumers' purchasing power in these countries.

5. The weakening of labour demand for unskilled workers and the threats of delocalisation exert a downward pressure on unskilled workers' wages. Depending on the country, these wages will either drop (which will raise inequalities and dampen consumption) or be maintained (which will contribute to raise unemployment). Depending on the country, taxation or social measures will be introduced, or not, to reduce the rise in inequalities.

6. Northern companies will try to sell on rapidly growing Southern markets and will invest less in the North. This explains part of the observed stagnation of company investments in some European countries.

7. Capital flows towards Southern countries and their exports' income lead to an appreciation of their exchange rate, except if there is a significant rise in Southern imports of capital goods produced in the North. This exchange rate appreciation limits the size of delocalisation. However Southern countries can avoid this to occur through accumulating foreign currency reserves, like China does.

The impact of the emergence of Southern countries on employment in the North must not only be considered from a global point of view in a long run perspective, but also in a medium term perspective (what are the adjustment costs for the productive system?) and in terms of employment structure: the cuts in unskilled jobs add to those resulting from technical progress. Even if they are smaller in numbers, they are more sudden and more concentrated in some specific sectors. Trading-off unskilled for high-skilled jobs is not necessarily good news for employment in the countries where unskilled unemployment is already high.

Should European countries implement policy measures to fight deindustrialisation, *i.e.* the decline of production industries both as a share of total output and in terms of employment levels? Three views are opposed. The free-market view states that deindustrialisation is a natural phenomenon for European economies. Production has already moved from agriculture to industry in modern economies. These countries should now rely on the one hand on high skilled jobs in research and development, innovation and management and on the other hand on employment in services. This is a *sine qua non* condition for raising productivity. No public policy should be implemented to stop the international relocation process. On the contrary, relocation should be encouraged through opening frontiers and allowing for free competition. The world market will set the level of wages of high skilled workers. Services

sectors will remain widely sheltered from international competition, and hence the wage level of ‘sheltered’ workers in services will be set at a domestic level and will rise in line with high skilled workers employment. Wages should be set both in services sectors and for high skilled workers through a market process. There is no guarantee that the market equilibrium will be socially acceptable and that income inequalities will not be excessive. But there is no alternative (TINA, as Margaret Thatcher said).

‘Reformists’ think that there is a significant risk for Europe to be badly positioned in world competition. First, research and development as well as education spending are too low. Second, there are a number of rigidities in terms of labour legislation, wage bargaining institutions and laws restricting dismissal. Second, the welfare state weighs strongly on sectors facing fierce competition from abroad. The European social model needs to be reformed in order to become more competitive. Risk taking firms and workers must be supported. This implies supporting well-performing and innovating industries. The growth of these sectors will compensate for the employment losses in unskilled industries. How should this support take place? Two views can be found. In one view, the general environment of companies needs to be improved, taxes need to be reduced, labour legislation must be reformed, incentives need to be introduced (through research tax credits for instance). In another view, support should be given to specific companies – helping the emergence of and supporting European champions – and to specific innovative sectors, like biotechnologies. To a certain extent this view is similar with the free-market one: more jobs in technology industries will increase the number of jobs available for ‘medium’ skilled workers, which in turn will make more jobs available for unskilled workers. Here also, the final degree of income inequalities is unknown.

Last, the ‘archaic’ view asks for specific support to be implemented in favour of unskilled labour as the functioning of economies *per se* raises social inequalities and makes unskilled workers unemployed, which cannot be accepted. Here also two views can be found. In one view, industrial sectors and national companies being in difficulty should be supported, a certain level of protectionism should be maintained, unfair competition should be fought, areas where employment is strongly affected should be subsidised. In another view, unskilled workers only should be subsidised, without interfering with production choices. These transfers may be found counterproductive because they benefit the losers and must be paid by the winners. Moreover, globalisation makes it difficult to raise taxes on high income people and healthy companies with a view to help people on lowest incomes and companies in

difficulty. Individuals and companies subject to taxation may decide to leave for a country where taxation is lower.

3. Promoting growth and competitiveness

The Lisbon Strategy and the Sapir Report (2003) claim for a successful ‘way out’ for Europe: making the European economy the most innovative of the world. The aim is to compete with the US but not with China; to export to rapidly growing markets rather than in slowly growing (or not growing at all) European markets and to specialise in high value added sectors.

More European and national resources should be devoted to higher research and development spending and to higher education, by creating ‘excellence poles’ in Europe. Structural reforms should take place to increase mobility and risk-taking incentives.

Specific taxation rules should be introduced for companies operating at a European level, in order to allow them to take advantage of economies of scale; markets should be more rapidly deregulated and open.

This strategy raises six issues:

1. The State should create a business-friendly environment rather than help specific companies. DG Competition prevents Member States from implementing industrial policies. But, in many cases, supporting specific companies or research areas could prove more efficient to raise growth in Europe.
2. Is it possible to promote scientific education and research in a context where financial profitability is a major objective?
3. Should European economies accept the death of traditional industries that are the more labour-intensive, to concentrate on highly profitable activities involving a very limited number of very high skilled jobs?
4. Should European countries encourage their companies to develop mainly on external markets, at the risk of having the companies relocating their production abroad?
5. This policy leaves aside traditional sectors in difficulty. It gives an incentive to firms for leaving these sectors. Will the development of high-technology sectors be sufficient to bring back a satisfactory level of employment?
6. What kind of jobs can we offer to the manual-oriented young men, if no workers job are available in Europe?

Some aspects of the Lisbon strategy can be found in French reports, suggesting for instance to support R&D and innovation through taxation measures (Grignon, 2004).

According to Fontagné and Lorenzi (2004), the importance of scientific and technical issues should be restored in the European culture and education. The European enterprise should be promoted. Funding innovation should be made easier. The Report lists 10 priorities. 7 of them are part of this strategy: developing technology universities (*Universités de technologie*); adopting a small business act; unifying the European innovation equity stock exchanges; increasing the role of the European Science Foundation; introducing a surveillance of the relocation of headquarters; introducing rules applying to 'European companies'; promoting mergers between European Member States companies.

Other suggested measures aim at increasing European attractiveness (Grignon, 2004):

- Improving the legislation of productive activities.
- Making easier new company launch and company ownership transfers (by inheritance or sale).
- Strengthening competitive advantages (quality of infrastructure, low energy prices)
- Promoting employability (higher education, professional training); deregulating labour markets; increasing flexibility and mobility
- Harmonising company taxation, public aid and social legislation in Europe.
- Promoting norms, patents and European labels.
- Promoting the harmonisation of social and environmental standards at world level and rewarding the fulfilment of these norms at an international level with the help of the consumers.

4. Promoting high-priority sectors, implementing industrial policies again

Among recent reports, Fontagné and Lorenzi (2004) suggest that competition policies and industrial policies in Europe should be rebalanced. Specific (*i.e.* restricted to a small group of European companies), industrial co-operation should be promoted, 'European champions' should be promoted albeit increasing the SMEs' capacity to adapt.

An aggressive strategy would consist in helping firms to produce higher-technology products for rapidly growing markets. Industry and innovation should become national priorities. Large programmes in top-priority sectors should be favoured.

Three priorities are listed: giving a 'brand name' to competitiveness poles; defining priority sectors at the European Council's level; setting a group of 3 European industrial managers to suggest initiatives supporting these sectors.

The Roustan Report (2004) suggests that State implements again a strategy to increase research funding and piloting innovations. The report recommends the issue to be tackled at the European level: less competition versus more industrial policies, research subsidies, tax harmonisation and rebuilding local area attractiveness through local public action. The Report also underlines that European enlargement may provide higher growth.

The Grignon report (2004) calls for a 'new-colbertism', in other words for a European industrial policy: implementing a sector approach by launching large innovative projects in rapidly growing sectors; defining the sectors to be promoted; improving parallel conducts of competition and industrial policies. It suggests using the EU trade policy to help the industry. It also recommends that the State supervises production processes (*filières de production*).

Beffa (2005) suggests the implementation of industrial policies again. The strategy would consist in launching programmes promoting industrial innovation ('PMII': *programmes mobilisateurs pour l'innovation industrielle*). Companies, experts and public servants would define innovative industrial sectors (like hydrogen production chain, biofuels, high-definition secured networks); big companies would receive subsidies if they develop research in these fields (50% of research expenses being covered by public funding) and would have to develop their network with small or medium size companies. So France would have 'national champions' in high-tech sectors (France currently has a too strong specialisation in nuclear, space and military sectors). The report leaves a question open: at what level should this policy be settled? Should it be at the French level (with a notification to European institutions) at the European level or within restricted cooperation between a small number of countries (like France with Germany)?

The development of 'competitiveness poles' (*pôles de compétitivité*) designed to help activity in given geographical areas is also a key measure of Datar's strategies, as is the support for the building of firms networks (clusters). Competitiveness poles should be given a 'brand name'; they should be advertised and benefit from lower taxation. Dedicated risk-capital should be developed, transport and telecommunication infrastructure should be provided. The link between national and European policies remains difficult to tackle.

Both Grignon and Roustan Reports suggest a strengthening of the role of local administrations in supporting local firms and employment.

5. Supporting unskilled employment

Two strategies are often suggested to compensate for the negative effect of foreign relocation on employment. The first one would be to increase the level of employment in sheltered services, like construction, tourism, hotels and restaurants sectors (see Letournel, 2004 or Grignon, 2004) or to increase the size of the services to households' sector (see Debonneuil and Cahuc, 2004). This would be done through tax incentives (allowing individual employers to benefit from lower social contributions as is already the case for companies), and through restructuring measures (making the services sectors more industrial and professional). The French government has introduced such measures in February 2005. But this strategy may be difficult to implement due to social habits (getting used to hiring employees is something that needs to be learnt by households) and because of the reluctance of young people to apply for such jobs. This strategy implies a rise in income inequalities.

The second strategy consists in cutting unskilled labour costs. Since 1993, companies get a rebate on their contributions on low wages, up to a maximum of 26 percentage points of employers' social contributions (in 2005, on a total of 40 percentage points) for workers at minimum wage levels. This reduces by 18.6% the cost of the minimum wage for firms. Besides, low-wage workers benefit from a refundable tax credit of 4.6% of their wage earnings in order to increase the gap between the minimum wage and the minimum income entitled to adults unemployed and not entitled to unemployment benefits (*RMI: revenu minimum d'insertion*). This is a 'making work pay' measure. The social contributions' rebate measure gives companies an incentive to hire unskilled workers (especially in services sectors) and can also help keep companies hiring a high level of low skilled labour stay in France. These measures cost 17.5 billion euros by year in the French budget (1% of GDP). The social contribution's rebate is estimated to have increased the number of jobs by 400,000. These rebates have the advantage of breaking the link between unskilled labour costs and the living standard of unskilled people. But they are costly for the Social Security budget on which they are funded and they lead to the creation of specific low-wage jobs with no career prospects.

The Grignon Report (2004) recommends a measure often suggested in France in past years, which would consist in abolishing (or significantly cutting) employers' social contributions and simultaneously increasing VAT. This reform aims at making the social security system being funded by consumption expenditures (and especially by imports) rather than by wages. The reform would entail competitiveness gains and cut wage costs in labour

intensive sectors hence raising employment. In our opinion, the reform would be totally ineffective because the VAT weighs on wages (like employers' social contributions) and not on capital goods (see Sterdyniak and Villa, 1998). Competitiveness gains would arise only if the rise in the prices of imported consumer goods resulting from higher VAT had no impact on wages, meaning that consumers would see their purchasing power reduced.

6. The French fiscal measures

The French government has introduced a significant number of measures, more or less successful, to prevent foreign relocation. These measures aim at providing an incentive for companies settling or to staying in France. They compensate partly for the high level of taxation in France. At the same time, they add to tax competition.

Since 2003, bonuses paid to foreign 'high skilled' foreign employees working in France have been exempted from income tax. This measure aims at attracting headquarters and research departments of big companies in France. The risk is that all countries introduce similar measures and raise tax competition at the expense of the distributional goals of income taxation. 'High skilled employees' will be less taxed if they work abroad than if they work in their country. These measures will be increased in 2005. In that field, European harmonisation would be useful.

A research tax credit has been introduced in 2004 allowing companies to benefit from a subsidy equal to 45% of the annual increase in their research and development expenses plus 5% of the amount spent. But, due to the European legislation, the tax credit has a relatively low ceiling. It would be useful to allow States to subsidize more significantly private research.

The 2005 budget has introduced several measures against the relocation process. First, companies relocating in France their existing production in non-EU countries benefit from a tax credit. Due to the European rules, this credit has a maximum of euros 100,000 in a three-year period by company (50% of labour costs the first year, then 40%, 30%, etc.)

Second, the French budget contains a number of measures designed to improve the attractiveness of French areas ('competitiveness poles'). The idea is to give fiscal incentives to companies investing in high technology production in specific geographic areas. These poles must bring together Universities or training centres, public or private research centres, small and big firms, working together in innovating or specific production processes. These networks are expected to stop foreign relocation of these specific production activities.

Last, companies operating in areas said to be ‘exposed to foreign relocation’ (areas with a high level of unemployment rate and a high share of industrial employment) are entitled to a tax credit of euros 1,000 per worker.

In all three cases, the measures have a limited amount. The costs expected in the 2005 Budget are respectively of 10, 50 and 330 million euros in 2005. Until now, these strategies are purely national and European rules are there to prevent their expansion. Is this a sustainable position for industrial policies in Europe?

France has suggested increased tax harmonisation in Europe, which would raise difficult issues, because Member States wish to keep domestic fiscal autonomy and also because low taxation rates are sometimes a convenient way to compensate for insufficient infrastructure, low levels of economic development or company subsidies not being allowed. Making sure that the profit tax is based on the source principle, and not on the origin principle, would avoid purely tax-motivated relocation. More, the fight against tax heavens should be strengthened at a European or world levels. Companies and financial institutions should not be allowed to have branches in or to transfer funds to these countries.

Company taxation amounted to 6.6% of GDP in France in 2002, ranking France 2nd in the EU-15, behind Luxemburg, against 6.4% in Italy, 5.2% in the UK, 3.5% in the US, 3% in Spain, 0.9% in Germany (where the figure was exceptionally low due to the tax reform). The current profit tax rate is 34.3% in France, at the level of the European average. It may be necessary to cut it down to 33.3%, but the effort to be done is limited (1.7 billion euros). The problem is not the level of profit taxation itself, but the fact that the wage tax (*taxe sur les salaires*), the tax on real estate (*taxe foncière*) and the professional tax (*taxe professionnelle*) add to profit taxation.

The professional tax is currently based on tangible assets (real estate and equipment) and particularly affects production industries. Reforming this tax has been debated for a long time. Recently it has been suggested for instance in the *Roustan Report* (2004) and the *Grignon Report* (2004). The government has promised to reform the tax in 2006, without affecting local administration funding and without increasing households’ taxation. The new tax could possibly be based on value added (at the expense of trade sectors and financial institutions).

The French government refuses to undertake a global competitiveness strategy that would consist in cutting directly wages or reducing company taxation together with lower public and social expenditures. In general, the search for competitiveness gains may be worthless, since the rise in competitiveness will be cancelled between European countries

while European demand will be lower. But the recent example of Germany cutting domestic labour costs to win competitiveness and hence depressing domestic demand illustrates that an isolated and non co-operative strategy can always be a temptation for a country.

7. Conclusion

The French government introduced several years ago cuts in employers' social contributions on unskilled work. It has recently opted for helping high-tech sectors and specific French areas, the 'competitiveness poles', rather than implementing additional measures in favour of unskilled labour in traditional industries (textile, etc). It remains to be seen how many jobs this new policy will generate. Besides, the French government is in favour of promoting the emergence of 'European champions'.

The interconnection between national and European policies remains an issue to be tackled. Three answers to deindustrialisation may be considered in Europe, mirroring different political and social issues. First, some governments could choose to implement domestic measures, but would be stopped by European authorities, in the name of free competition rules. Second, some governments could implement measures without the European authorities interfering, but this would not be optimal: is it reasonable or advisable that a Member State introduces alone domestic taxation measures strengthening tax competition in Europe? The other risk is that national measures would be constrained by the fear of European reactions. The best strategy would be that European countries adopt a common strategy at the European level. European authorities could reduce the importance they give to competition policy, initiate a reflection on the future of productive activities and employment in Europe and promote a European industrial policy as part of the Lisbon strategy.

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IV. RELOCATION: WHAT MATTERS? COMPETITION OR/AND A NEW POLICY MIX ♠

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With respect to relocation (delocalisation) issues two attitudes can be contrasted. According to the most standard one, relocation does not create any problem when full competition prevails in product, labour, and capital markets. Changes in transportation and production costs may generate changes in location by firms in manufacturing industry at the benefit of less developed countries. In more developed countries, jobs are shifting from e.g. manufacturing to services industry, and the negative impact on households' purchasing power of lower nominal wages, if any, will be more than offset by lower prices of imported final goods. Unemployment will be frictional and temporary, unless market labour rigidities prevent the necessary jobs' shifting. According to an evolutionary perspective, relocation is an aspect of a process of creative destruction that necessarily results in local distortions in the structure of productive capacity and hence in market disequilibria. In the latter perspective, relocation can no longer be viewed as an equilibrium phenomenon. It may be associated with an increasing rate of unemployment and make it necessary for public authorities to intervene. In fact, all depends on the way co-ordination issues are dealt with. Focusing on attractiveness and competitiveness of territories may lead public authorities to implicitly consider international trade as a zero (or negative) sum game and implement supply side oriented policies that are fundamentally misconceived and could increase market disequilibria. Thus it is necessary to consider how production location really takes place out of equilibrium and how relocation may end in a quasi-dynamic equilibrium. Public interventions are required, which consist in combining structural and macroeconomic policies, the former being efficient only if the latter are growth oriented.

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1. Introduction

Change in firms' location is a *permanent* phenomenon strongly related to any structural change. Today in developed countries it involves jobs' destruction, not only in the manufacturing sectors *stricto sensu*, but also in value-added services to industry. This phenomenon becomes really worrying when it takes place in economies also characterised by decelerating productivity gains, a low job creation, and unemployment. In such a context, relocation is wrongly but usually perceived as one of the ultimate causes of unemployment. And the usual suspect is international trade coupled with huge differences in social and environmental standards.

However, while tenants of the latter assertion plead for some protection arguments, tenants of liberal orthodoxy maintain that implementing competition rules will prevent any problem to occur.

We intend to show that things are much more complex. On the one hand, international trade cannot be considered as responsible of increasing unemployment and reducing income in any country: in an equilibrium context, it cannot be but a positive sum game. Importing new goods and services that results from relocation creates new opportunities (allows using productive resources in a different and more productive way) inside the country. The loss of manufacturing jobs due to growing import penetration should be offset by the job creation effect of growing exports. Moreover, as underlined by Krugman (1995), trade surplus is not necessarily a sign of economic strength when foreigners are reluctant to lend to the country or to invest in it. On the other hand, although international (or interregional) trade is a major contribution to growth both in developed and developing countries it is also responsible for some of the social and distributional costs. "Why? Because trade can generate sizable benefits only by restructuring economies – that is the essence of specialization according to comparative advantage – and in the real world restructuring does not happen without someone bearing costs. The flip side of the gains from trade is the losses that have to be incurred by adversely affected workers and enterprises (...) Simply put: no pain, no gain. It makes little sense to pretend otherwise" (Rodrik 1998 p. 5). Growth is not a regular process, and as such its relation with trade is far from being trivial. Changes in the geographical distribution of economic activities, which are in the nature of the growth process, may go hand-to-hand with internal distortions in the structure of productive capacity that cannot be eliminated by simply liberalising trade and allowing the economy to be as near as possible to a state of perfect competition. As a matter of fact, changes in firms' location, e.g. at the detriment of advanced

countries (and at the benefit of the less developed), become harmful when these distortions end in a lower growth rate and a higher unemployment rate in the former countries. This phenomenon has nothing to do with international trade *per se*, though it reveals how domestic distortions may change the impact of international trade. In this case, public policies that focus on competitiveness of territories may amplify these distortions, which are mistakenly attributed to international trade.

Although there is no evidence that relocation is now a significant problem in developed countries, it is nothing but an aspect of the breaking-up in the industrial structures, which is the nature of any innovation process, and of the intrinsic difficulty to manage this process, whatever the degree of trade liberalisation.

It feeds a current debate, which has the advantage of signalling the complexity of the relation between the geographical distribution of economic activities and the performances of countries. The real problem lies in the distortion that emerges from an inevitable and powerful structural change. International trade, which is beneficial in an undistorted economy turns to be harmful because of a domestic distortion. Thus, harmful effects of international trade may occur in developed countries as a consequence of strong productivity gains that would characterise production by less developed countries of goods for which these countries had previously a comparative disadvantage (Samuelson 2004) This does not mean that distortions in the international trade (protectionism) must be introduced (Krugman 1996). The logic answer is that domestic distortions have to be eliminated. Thus, it is necessary to identify the nature and the significance of these domestic distortions. Are they cost differentials, too high wages, or anything else? To what extent are they related to external trade and foreign investment?

The remainder of this paper contains four sections. Section 2 offers an analysis of relocation within the standard (equilibrium) framework, which leads to focus on fundamentals and *ipso facto* to recommend competitiveness strategies, the efficiency of which is really doubtful. Section 3 then focuses on the real nature of distortions and co-ordination issues at the local (national) level. Section 4 shows how domestic distortions influence reciprocal demands, and hence why and how international trade matters. Finally, section 5 reviews policy implications.

2. The hypothesis of relocation in the current analysis and the obsession of competitiveness

Current economic analysis does not address directly the phenomenon of relocation. So we have to consider what could be its significance with respect to the results of new models that are a mix of geographical and international economics.

Within the standard analytical framework, relocation is nothing but an aspect of a core – periphery pattern, which would be reversed as a consequence of a reduction of transport costs coupled with a huge differential of wages. In this perspective, the loss of ‘high’-wage manufacturing jobs in the core would be associated with international trade and foreign direct investment as induced by decreasing transport costs. This assertion is the essence of the so-called *deindustrialisation* or *relocation hypothesis*.

New economic geography modelling stresses technology in the standard way as the ‘fundamental’ determining both the growth rate of different countries and the spatial distribution of economic activities. The relevant attributes of technology in this case are local externalities, transport costs, costs of communication of new ideas and knowledge, R&D spillovers (Krugman and Venables 1995, Martin, Ottaviano 1999, Baldwin, Martin, Ottaviano 2001). Technology, far from being a result of a process of innovation, is a pre-condition of it. Decreasing unit costs and increasing variety of goods that generates forward and backward linkages are an immediate outcome of the choice of introducing a new technology. Relocation follows, but without creating co-ordination problems that would result in the reduction of income and the appearance of unemployment in the countries concerned with delocalisation.

Within such an equilibrium framework, trade liberalisation and relocation fit in with industrial clustering. Firms and consumers are more outward oriented. If market proximity is less important than local linkages as competitive forces to be taken into account by each firm, then industrial clustering will be more intense as a consequence of a deeper integration. Breaking the symmetry between supply and demand forces at the local level will induce changes in the location of firms, but these changes cannot be considered as harmful when they do not result in higher unemployment and lower income. On the one hand, specialisation is supposed to only induce changes in type of jobs in each cluster without global effect on employment. On the other hand, real-income gains are supposed to flow from clustering of industries. This explains why industries are more highly clustered in the US than in Europe, without harmful effects on employment in any geographical area. Clustering is here a quasi-dynamic equilibrium. The only problem (not addressed in the equilibrium models) is a

transitional one: workers that have to change job suffer a transitory real-income loss in the process (Fujita and alii 1999 p. 293).

In a country that faces delocalisation, the only attitude, which is coherent with standard analysis, would consist for public authorities to accept changes in firms' location and hence allow consumers to benefit from lower prices of goods produced abroad. Such an attitude relies upon the assumption that full employment is maintained and hence a local market for these goods continues to exist.

Of course things are very different whether there is mobility of labour or not. With labour mobility there will be agglomeration and a cumulative process of geographical concentration, given the existence of some centripetal forces. Without labour mobility, one cannot have this kind of evolution. The same kind of forces will result in a process of international specialisation that concentrates particular industries in a limited number of countries, and not in a classic process of agglomeration that would also involve a concentration of population (Fujita and alii 1999 p. 240).

In the latter case, domestic distortions may generate unemployment and relocation appears as a real problem. Appropriate policy-making would be the one that focuses on supply conditions, aimed at increasing competitive advantages for an economy with respect to its external competitors. Reducing wage differentials, improving labour market flexibility, reducing taxes, improving public infrastructures seem to be the only policies aimed at influencing the rationale of agents in their location choices and favouring the attractiveness of territories.

In this perspective, relocation can be considered as an effect of innovation taking place abroad, and characterised by a (sudden) decrease in unit costs. It may be impeded or reversed thanks to supply-side oriented policies. The solution for the more advanced countries would consist in encouraging social and fiscal dumping or in developing new varieties of goods in order to compensate the prevalent asymmetry of costs. In the former case, policies are aimed at reducing current production costs. In the latter case, the objective is to escape from price competition by enhancing R&D and higher education and promoting a new division of labour.

The attempt to carry out supply-side oriented policies is directly inspired by the necessity of fighting against a high rate of unemployment, whether this rate is presumed to be higher than the NAIRU or, due to the rigidity of the wage rate, the NAIRU itself is too high. The problem is that, in the actual (out-of-equilibrium) context, the efficiency of these policies, implicitly based on the obsession of competitiveness, is really doubtful.

As for the cost-oriented competitive policy, it seems difficult if not impossible to compensate huge wages' differentials. On the other hand, any policy that consists in compensating wages differential by reducing non-wage costs thanks to infrastructure spending, fiscal reductions, or subsidies may favour the attractiveness of territories, but also make unstable localisation choices by decreasing exit (relocation) costs: if there is no specific advantage for a firm to be located in one area or another, then the absence of sunk costs makes location easily contestable.

As for R&D oriented competitive policy, it is worth mentioning that vertical (or quality) differentiation of products, as a pure firm's supply strategy, is not necessarily a solution insofar as successful emergent economies are engaged in a growth strategy that consists in being at the frontier of productivity gains. As Samuelson (2004) pointed out, huge productivity gains at the benefit of under developed countries in the production of goods for which developed countries had previously a competitive advantage are harmful for the latter. It is well documented that openness appears as a necessary condition for a backward economy to capture the (external) demand that makes it possible to produce the mix of goods allowing a higher potential of learning (i.e., a higher productivity growth), and thus to catch up with the most advanced countries. In fact, the backward economy, in order to maximise its growth rate of productivity needs to face a wide gap between the mix of goods produced and the mix consumed, and this makes unavoidable international trade (Lucas 1993). Of course, all countries may benefit from the enlargement of international trade, which is not a zero sum game by assumption. But this depends on what happens on the demand side. Firms of advanced countries will really be in the position of developing new technologies and new products if internal as well as external markets are large enough, that is, in particular, if unemployment does not increase.

Competitiveness policies are sometimes presented as relevant with respect to the prevalent changes in the institutional environment. Transition from a multinational market highly influenced by regulated exchanges among nations to a global market regulated by international trade and investment agreements would be quite a structural shock that would change the nature of regional barriers to trade. In this new institutional context, due to sharp decreases in transportation costs, which tend to zero in the case of immaterial value-added activities, production areas are disconnected from the market they are designed for. Thus local markets (in fact, population differential) would be no longer of importance in the determination of firms' location, in fact in a limited number of activities. Minimisation of production costs would be much more important than market proximity. Indeed, reference to

the new institutional setting is nothing but a way of reshuffling the same argument, which is derived from the models of new economic geography: given costs advantages and local externalities interact and this interaction determines the geographical landscape. Changes in the institutional setting may transform market and costs conditions so as to make public policies supply-oriented necessary in the perspective of counterbalancing location effects of such a transformation. Anyway, this does not make less doubtful the efficiency of policies focusing on competitiveness of territories.

Summing-up, policies that simply focus on structural reforms that are supposed to involve costs reduction or variety enlargement, cannot be considered as substitutes for growth policies. The reason is that within an environment characterised by a low growth rate, they may amplify distortions and hence generate cumulative processes and uneven development., As a matter of fact differences in ‘fundamentals’, i.e. differences in unit costs or in product variety, cannot account for growth differentials among territories. Ambiguity of the analysis that only focuses on competitiveness is due to the attempt of dealing with relocation issues within an equilibrium framework.

3. Relocation and real distortions

Variety of goods and services and spillovers within as well as between sectors are the main sources of economic growth. There are two ways to relate variety to regional economic development. The first one focuses on variety as an innovative strategy that implies for a region to be specialised in a particular composition of complementary sectors. The second one focuses on variety as a portfolio strategy that protects the local economy from external demand shocks (Frenken et alii 2004). Contrasting these two approaches, empirical investigation about regional growth in the Netherlands concludes that related diversification is more rewarding for growth and employment than unrelated one (ibid.). “Related variety indeed enhances employment growth while other types of agglomeration economies are not significant. Knowing that related variety is mainly present in densely populated areas, and given that population density is not significantly affecting employment growth, we can conclude that related variety in cities is responsible for job creation and not urban density in itself” (ibid. p. 39). To some extent, these results are corroborated by another empirical study, which is concerned with agglomeration effect on the productivity of firms in the French employment areas (Mulkay 2004). This study has two main results. On the one hand, when qualification shares and the industrial structure in employment areas are introduced as

explanatory variables, economic density is not any more a determinant of labour productivity. On the other hand, while specialisation (indicating if the studied zone is specialized in a low number of sectors or if it offers a large range of activities) and specificity (here measured by the difference between the sector structure of the zone and the structure of other zones in the country) have a strong positive effect on labour productivity, the effect of concentration is not so obvious. As economies that exhibit related diversification are also those showing sustainable growth and full employment, relatedness in the previous sense appears as the means for avoiding relocation that would result from direct production costs differentials.

As a matter of fact, these empirical results mainly confirm that the efficient variety is the one that is associated with an innovation process successfully driven. It is also the one that involved local demand or supply links. Thus, what matters is not really the existing variety of goods (and services), or the nature of clustering, but *how it comes to the fore and evolves*. When considering innovation as a process of creative destruction, the geographical dimension of this process and the sector composition of local areas depend less on fundamentals than on the conditions that make *viable* the process of change. Indeed, such a process inevitably generates both destruction and creation of productive capacities, in fact distortions in the temporal structure of productive capacity that require adjustments to be carried out in time. In this perspective, competition is not only aimed at equalising supply and demand in a given market and technological environment, but has also to adapt both structure and technology to opportunities created by expanding (or changing) markets. It should be viewed, not as a state (perfect competition), but as a process, which implies that market connexions (or imperfections) are essential means that make it possible to co-ordinate both competitive and complementary investments. In the latter perspective, public intervention cannot be reduced to create the conditions of enforcement of perfect competition rules (see Richardson 1960).

As a matter of fact, technological *development*, which is effectively the way for advanced countries to take advantage of the new division of labour by creating new varieties of goods, is not only driven by incentives such as determined by given rules or institutions, but is based upon the ability of changing both local and global relations without creating too much perturbations. While new organisational structures for innovation result in part from strengthening linkages within territorial production complexes, innovation increasingly rests upon the primacy of extra-regional relationships. “Globalisation, in other words, presupposes a reconstruction of the spatial division of labour creating new forms of articulations between global and regional levels that move well beyond one-dimensional portraits of global ‘footlooseness’ (in which the region is subsumed within a corporate division of labour,

something which is still characteristic of transnational strategies) or putatively autonomous industrial districts (in which the global dimension is derived as a market-outcome of inter-regional trade)” (Gordon 1994 p. 38). This definition of globalisation is essential in the perspective of understanding the difference between a pure *competition strategy*, of which we have mentioned the weaknesses, and a *co-ordination strategy*, the necessity of which derives from the existence of distortions that cannot be removed only by using the price mechanism.

Co-ordination has multiple facets. Changes in the way in which innovation is achieved demands *changes* in the way local and external linkages are organised. Relocation of economic activities is an unavoidable effect of such an evolutionary process. In the first stage of the innovation process it may be decisive to combine innovative capabilities of a small number of existing firms with the driving force of a State (public) demand. New industry emerges not from localised entrepreneurial initiative (or pre-existing location factors), but from a conjunction of innovation in established firms and extensive public intervention through specific programmes, specific physical infrastructures and dedicated subsidies. This conjunction results in new growth poles¹. In the second stage, the market dominates growth of innovative activities, both because sunk costs have been covered and because horizontal and vertical diversifications enlarge the size of the market. This shift in the economic (and technological) trajectory consolidates the initial location. This does not mean that public intervention becomes useless. Successful globalisation processes, which imply the interconnection of diverse and multiple capabilities, as well as the interconnection of different markets, require public intervention. But this intervention should be able to chart a new course, between a sterile competitive struggle and a form of co-ordination – protectionism - that would end in a regional isolation. In the third stage, innovations diffuse widely, and the originating local environment faces higher competitive pressure from other environments that succeeded in reaching similar capabilities and related economic performance. In that third stage, a reshuffling of policy-making is often needed to delineate and support new entrepreneurial initiatives, and impeding harmful consequences of changes in the location of some industrial segments.

¹ Contrary to what is universally considered, Silicon Valley is exemplary of this kind of initial impulse. “The state was involved in every aspect of the microelectronics industry’s emergence and early development. Advanced military and aerospace demand provided the principal market for microelectronics, established research priorities in product and process innovation, stabilized high profits for successful companies and underwrote the risks of new product developments. The vast majority of scientists, engineers and technicians in the microelectronics industry acquired state-of-the-art and practical knowledge in government-financed university or corporate research and development programs” (Gordon, 1994 p. 39)

In this perspective, what is at stake is not deindustrialisation and relocation *per se*, but the creative destruction process, which is behind the scene, and how to deal with it. We have just seen that innovation or any change that implies a breaking down in industrial and market structures and the appearance of *sunk costs* has implications on the spatial distribution of economic activities. Thus, spatial as well as industrial issues are mainly co-ordination (largely domestic) issues related to the distortions in the structure of productive capacity and the sunk costs associated with it. Openness and the emergence of new countries in the international trade do not create difficulties *per se*. They create difficulties insofar as local disequilibria, which result from changes in the international environment, are not correctly dealt with. They may even be a means for ensuring a better co-ordination because of the enlargement of markets.

Briefly, market disequilibria and distortions in the productive capacity that necessarily emerge call for local co-ordination of economic activities, which cannot amount to simply re-establishing competitiveness by reducing production costs or creating niches for new products. Co-ordination should consist in creating the conditions for firms to deal with sunk costs, which are the unavoidable consequence of structural change. Helping the constitution of networks, supporting co-operation agreements, facilitating access to financial and human resources are elements of the required policy mix that include competition, regulation, or banking policies.

Thus there is no fatality of a core – periphery pattern. Indeed, increasing returns and product differentiation make it possible to have a huge increase in intra-industry international trade. Thus, the extension of trade may take place without a sizeable relocation of productive resources or income distribution effects, but with a local reallocation of these resources. All depends on the way co-ordination issues are dealt with, *within* economies and *between* economies. The basic idea is that growth and the realization of increasing returns can take place in different countries preserving their heterogeneity, but without creating more inequality among them. Provided, though, that we look at trade liberalization, growth and innovation in the light of the interpretation of evolution process that focuses on co-ordination conditions that cannot be reduced to the market forces.

4. Relocation and the evolution process: the role of trade

Any breaking-up in a pre-existing industrial and spatial structure results in disequilibria between supply and demand of final product at each moment of time and over

time. Such discrepancies are not exclusively policy (or institution) dependent: they are in the nature of any structural change. They have both an internal and an external dimension that must be dealt with. In this perspective international trade as well as foreign direct investments matter, but not only with respect to initial endowments or existing externalities. One can imagine that firms do not need to be located near the market for their products. But a market must exist. And its existence depends on what happens on the supply side within the different geographical areas. Firms may decide to delocalise their production in the South in order to reduce their production costs. But such a decision will be justified only if the market in the North does not disappear, or if the market in the South is a substitute for it. In the latter case, the core – periphery pattern would be really reversed and relocation would go really hand-to-hand with deindustrialisation and structural increase in unemployment in the North. In the former case, production and employment must be sustained in the North by means of appropriate public intervention.

In fact, for an open economy, balanced growth results from the harmonization of external and internal demand with the productive capacity. Trade and openness may be very important factors both in increasing the long run growth potential, and in smoothing fluctuations due to country specific shocks; but this positive role is fulfilled only if the economy has internal resources – the reference is mainly to productive capacity, but also to a sufficient level of revenues - to match the increase in demand and to keep the balance that is necessary to successfully complete a transition process.

Consider the case of two regions (countries), which exhibit a complementarity of final demand, and take for example the case of a shift of preferences from goods produced in a country (call it country 1) to those produced in its trading partner (country 2) (Saraceno 2001). This kind of change can be regarded as a change in transport costs that allows the firms in one country to be more competitive than firms of the other one, given a huge wage differential. Standard economic analysis, in which co-ordination is assured ‘by assumption’, tells us that a *relative price change* (either via prices or via the nominal exchange rate) will accommodate the new and different preferences. Thus, production and employment will remain unaffected, as the burden of adjustment exclusively falls on prices. In a sequential out-of-equilibrium process, instead, price variability is not likely to be enough. The expected increase in the income of country 2 should generate an increase of imports and hence in the demand for the goods of country 1 (partially compensating the preference shift) and hence, as a side effect, an increase in the income of the latter. Symmetrically, the initial drop in the demand for the goods of country 1 should involve a decrease of its income and imports, and

hence a decrease of the demand for goods of country 2 generating an excess capacity in this country. The final result depends on the way necessary adjustments to re-establish complementarity take place in both countries.

Investment must be carried out in region 2 and this takes time. It implies that revenues will be distributed while the goods in which they will be spent cannot be provided out of the current local output. Inflationary pressures and/or trade deficit will follow. Then the standard prescription consisting in fighting inflation and keeping prices flexible could result in cutting investment spending, and aggravating distortions in the structure of productive capacity in the two regions (ibid.). A policy aimed at sustaining investment only in region 2 would favour this region and likely generate an uneven development and a dualistic structure. However, if in the country 1 the increase in demand due to the trading effect more than compensates the initial decrease due to the preference shock, a policy mix may prove necessary in this country as well, in order to allow investment in new capacity. Therefore, sustaining investment in both countries would help absorbing the shock and prevent a too large gap between the growth rates of the two regions.

In other words, complementary external demands (i.e. international trade) should stimulate faster growth in the exchanging countries. However, trade advantages can be captured only if appropriate interventions for sustaining investment in new production processes are realized in a context where demand complementarity adds to the complexity of adjustments. Production, as often stressed (Amendola, Gaffard 1998), takes time, which implies distortions in productive capacity resulting in current market disequilibria in exchanging countries that try to adjust through investment. The restructuring of productive capacity in the two countries has to be accommodated by transfers (or by an easing of financing conditions) that allow the re-absorption of the shock. For these interventions not to bring about unbearable distortions in the structure of productive capacity, the balance between investment and consumption must be maintained, so as to allow each economy to reach a threshold beyond which complementarity of demand between countries becomes effective, smoothing fluctuations and thus resulting a growth factor. Then, relocation will only permit a better allocation of resources, without adding to pre-existing distortions, and without involving development gap between countries.

While new economic geography modelling tells us that change in fundamentals does not induce a change in the size of markets, sequential analysis reveals the existence of domestic distortions that affect reciprocal demands and generate perturbations in the growth

process. These perturbations, which cannot be removed by just allowing price and wage flexibility, require investment spending aimed at enhancing structural changes.

5. Policy implications

The obsession with competitiveness is certainly based on a wrong appreciation of the possible impact of international trade (Krugman 1994). Nevertheless it seems to be justified in established (old) industrial districts or in small countries insofar as their performances mainly depend on external demand, which is a parameter for these economies. Competitiveness strategy, which consists in capturing this external demand by decreasing production costs, can even be successful in these cases. At the opposite, the same obsession is dangerous in the case of innovative districts or larger countries, when final demand is not independent of what happens inside the territory and hence cannot be considered as given. In the latter case, it is essential to consider the nature of both internal and external driving forces of final demand.

In the case of large European countries, the real issue lies in the complex array of factors that determine labour productivity rather than in failures in their capacity to deal with international or interregional cost competition. As a consequence, there is no solution that would consist in things as simple as subsidising high technology, reducing fiscal pressure, in fact in conducting implicit or explicit industrial policies only based on corporate strategy concepts such as competitiveness. Enhancing productivity growth does not imply simply supporting research that can improve capabilities of firms engaged in international trade, but also and mainly requires different forms of co-ordination that support a regular growth process despite huge structural changes (and, in fact, efficiently deal with them).

As already mentioned, the main dimension of these forms of co-ordination is to be concerned with the nature of innovation as a distributed phenomenon, that is, with a phenomenon that involves many actors both at the micro and at the macro level. In this perspective, innovation policy cannot be reduced to changing rules and institutions and/or enhancing R&D spending. It must be policy aimed at sustaining the process of change. Two central implications have to be emphasised. The one is its discretionary dimension and its underlying experimental character; the other is its inherent combinatory character. Innovation (or growth) policy is actually a complex mix between supply and demand policies, between structural and macroeconomic policies (see Rodrik 2003 for a historical appreciation). This is particularly true in such complicated matters as firms' location and geographical distribution of productive activities. To ensure the stability in firms' location, policy-makers have to rely

on a combination of structural policies and policies aimed at smoothing fluctuations and avoiding destructive cumulative processes. It is the complexity of mutual interaction between the two components that creates the difficulty and the governance issue of innovation policy.

In particular, eligible local policies depend on the global one. If the latter is responsible for a low growth rate (and a high unemployment rate), then the former cannot be but competitiveness policies as previously defined, or, according to another social view, policies only dedicated at compensating social damages. None of these policies can be efficient with regards to employment (and productivity) issues, and allow international trade being a positive sum game. For this to happen a combination between macroeconomic policies that favour the accumulation of capital, and structural policies that directly target the organisation of industry, stimulating innovation process at the firm or industry level is required. As previously mentioned, avoiding harmful consequences of changes in location implies sustaining local demand for final products. However the latter requires not only increasing local incomes, but, also, creating local conditions for the rise in the volume and variety of the local production, and hence in the wage bill. Management of demand is never independent from the stimulation of supply, and vice-versa. There is a dilemma due to the fact that wages are both an essential part of production costs and the main component of final demand, which is at the heart of the articulation between local and global policies, between structural and macroeconomic policies. Two drawbacks should be avoided: on the one hand, increasing demand without increasing supply, which would be the case when public interventions only consists in augmenting the take-out on productive resources and redistributing the total income; on the other hand, increasing supply without increasing demand, which would be the case when public interventions are reduced to a fiscal and a social dumping.

Thus, one of the main challenges is to identify both objectives and instruments of structural policies that make it possible that changes in location not result in higher unemployment rate in some countries. These policies should be mainly oriented to promote local specific resources. Instead of systematically diminishing the sunk costs to be borne by firms, they should be dedicated at establishing the local linkages that help the creation of technology and thus result in effective barriers to exit (relocation). In this view, local policies stimulating R&D and education, make sense if, far from being exclusively oriented to support the competitiveness of the country, are carried out together with other public policies all of them being growth oriented. Concerning education and research, it is certainly important to promote an institutional architecture that creates good incentives, but this architecture must

also favour the accumulation of adapted human resources in order to prevent any distortion on the labour market². As for scientific - long-term – investments, the benefits to be expected from any scientific project for the local area in which it is settled (such as e.g. the ITER project) mainly depend on the ability of creating local linkages that allows designing and producing new products and services. This ability is associated with rules and governance mechanisms that favour a better co-ordination between competitive and complementary investments. These rules and mechanisms, contrary to those generally considered as emblematic of policies that focus on competitiveness of territories imply partnership and cooperation agreements that must be promoted rather than condemned. As for new sectors, such as biotechnology or life science industry, policies should be aimed at securing innovation and growth. E.g. in the case of the German biotechnology industry, while most of the companies de-located R&D facilities, a series of public interventions helped reverse the movement. These policies provided direct subsidies to projects' coaching and monitoring, stimulated supply of 'high level – low price', thus favouring an impressive boom of small biotech firms.

While the current consensus tends to promote deregulation of product, capital and labour markets, and privileges a very specific competition policy, managing the innovation process and avoiding distortions that would result in delocalisation and unemployment require articulated discretionary interventions, mainly aimed at removing barriers to growth. These interventions, instead of mimicking or simply reinforcing corporate strategies, have to create conditions that allow re-orientating these strategies. In this perspective, changes in government spending, which would favour product differentiation and hence allow an endogenous increase in total factor productivity, may result in simultaneous increases in output, employment, wages, and consumption (Devereux et alii 1996). Thus, due to a huge wage differential between the North and the South, unskilled jobs will disappear in the North, but the gains from exchange will be really captured thanks to appropriate investment. They will allow economy in the North to reabsorb (de facto frictional) unemployment without bearing a reduction in the wage rate. Relocation of economic activities will actually be only an aspect of a fruitful restructuring of productive capacity.

² In particular, it is essential to distinguish between the departments of universities that develop research activities with respect to the requirements of the international scientific community and those that develop general competencies required by the economy.

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