# Private equity, productivity and earnings

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## 1. Introduction and summary

This paper adds to previous PSIRU papers on the evidence on the impact of private equity on employment and earnings (Hall D. Feb 2008 Private equity and employment – the Davos/WEF/Harvard study http://www.psiru.org/reports/2008-02-PE-WEF.doc ; Hall D. Feb 2008 Private equity: financial investors, public services, and employment http://www.psiru.org/reports/2008-02-PE-eu.doc ; and Hall D. May 2007 Methodological issues in estimating the impact of private equity buyouts on employment http://www.psiru.org/reports/2007-05-PE-emp.doc

This report is primarily a critical commentary on the report on private equity published by the World Economic Forum (WEF) at Davos in 2009. It also comments on further serious weaknesses of the most recent reports published by the European Vencture Capital Association(EVCA), and the British Venture Capital Association (BVCA). It also notes forecasts that the financial crisis will lead to one-third of European companies bought by private equity defaulting on their debts.

The WEF 2009 report adds to its predecessor by showing that, in manufacturing in the USA:

- PE firms perform no better in terms of management practices than stock exchange listed or family firms with an external CEO
- PE firms are significantly different in employment practices only in their greater propensity to dismiss workers
- The management techniques used by PE and other firms show stronger links with labour productivity and return on capital than with growth in sales
- Firms bought by PE groups already had 3.8% higher productivity than comparable firms
- Firms bought by PE groups increase their productivity advantage to about 5.2% above comparable firms
- Workers employed in plants bought by PE firms experience a fall in earnings of over 3% compared to workers in other similar firms
- The greater 'creative destruction' of PE groups, buying and selling and closing and opening plants, is intensified when the cost of debt rises

## 2. The 2009 WEF report

The WEF has now produced two reports on PE. The first report, published at the 2008 WEF, included a major study of the impact on employment in PE takeovers in the USA. The methodology of the study was explicitly designed in recognition of the validity of critiques, published by UNITE in the UK and SEIU in the USA, of reports by the PE firms' own associations in the USA, UK and Europe. The results of that WEF report were widely misrepresented, including by the WEF itself in its publicity for the study. A PSIRU report for UNITE identified the key results of the report as showing that there was about 10% extra loss of jobs in workplaces in the 5 years after PE takeovers compared with other similar workplaces which were not bought by PE firms, and that workers experienced far greater insecurity of employment as a result of the intensive 'creative destruction' observed following PE takeovers.

The 2009 report is acutely aware that the economic crisis has brought PE takeovers to an almost complete halt because of banks unwillingness to lend to the corporate sector. It states in its preface "Since the onset of the current crisis private equity activity has slowed dramatically. Credit markets have collapsed" and that this raises a question of whether PE can "create sustainable and fundamental value beyond 'financial engineering'." Value here means value for shareholders; it is a separate question whether PE activity represents the creation of wider social value, or just an opportunistic way of extracting profits at the expense of the workforce.

The 2009 report includes four separate studies. The main study in the report, which is the principle focus of this critique, is a study of the impact on productivity of PE takeovers. Another concerns management practices of PE firms compared with other firms. These two studies are the main focus of this report, as they both have bearing on the impact of PE on employment and productivity.

Of the other two one concerns PE in developing countries (known as 'emerging markets' to the WEF); the other is a study of LBOs in France.

The French study finds littrle of interest except that PE firms improve performance in those SMEs that were generating little internal capital – a wholly unsurprising finding, since this is effectively the venture capital role.

The 'emerging markets' study has data on patterns of which firms and countries are selected for PE takeovers, but nothing relevant for the impact on employment or productivity.

## 2.1. Management practices

The survey of management practices compares the practices of PE firms with others in a sample of 4000 firms in 12 countries – USA, UK, France, Germany, Sweden, Italy, Poland, Greece, Portugal, China, India and Japan. The other firms were divided into broad types of owner. One main category is of firms held by multiple shareholders – typical of companies quoted on the stock exchange; others include state-owned and family-owned firms. The study was based on interviews with managers, using various techniques to make the results as relkiable nand comparable as possible.

The study was limited to medium-sized firms, employing between 100 and 5000, and only covered manufacturing firms, because "productivity is easier to measure". **The results of the study thus say nothing about non-manufacturing firms, which represent a high proportion of PE takeovers; and nothing about large firms with over 5000 employees, including all the stock exchange companies which were taken private by PE.**

**Chart A. Scores of PE firms and others on management practices: medium-sized manufacturing firms**

Note: Sample of 4,221 medium-sized manufacturing firms. The bottom bar chart only covers the 3,696 firms which have been in the same ownership for the last 3 years. The 'Other' category includes venture capital, joint ventures, charitable foundations and unknown ownership.

The survey found that PE firms came out as 'best managed', but notes that "the results for private equity vs dispersed shareholding firms are not statistically significant". So literally**, there is no significant difference in the management practices of PE firms and firms with multiple shareholders, like stock exchange quoted firms**. This is to be expected: the management practices covered by the survey are not mystic secrets known only to PE partners, but well known and widely taught and publicised techniques (the survey helpfully provides references to some publications). The management of a firm with multiple shareholders will be as aware of these techniques as any PE group.

The survey found that there is a significant difference in management practices compared with most private or family-owned firms. This may reflect the venture capital role of private equity in developing small or medium private firms, a role which is relatively uncontroversial. But it should be noted that **PE firms did**

**not score significantly higher than family-owned firms which appointed an external CEO** – a much simpler and less disruptive step than subjecting a firm to a PE buyout.

It found a significant difference in management practices compared with state-owned firms, which only accounted for a small number of the sample (134 out of 4221). The country distribution of this sub-group is highly skewed to the developing countries (there are very few state-owned medium-sized manufacturing firms in the USA or UK, and relatively few in continental Europe). This affected the results: "Controlling for country of location reduces the gaps between the ownership types, but leaves the qualitative results broadly unchanged". This relates to the general question of the relative efficiency of privatised firms compared with state-owned firms, on which there is an extensive literature. The mainstream findings of this literature are that there is no significant difference in efficiency between private and state-owned companies – the most comprehensive study of the UK privatisations, for example, concludes that the privatisations made no discernable impact on efficiency of the companies. The findings of the WEF study are a minor addition to this body of work in respect of a small sample of medium-sized manufacturing firms.

The definition of 'better management practices' is central to the study. The report acknowledges that "good management is tough to define, and is often contingent on a firm's environment.", but then makes the assumption that a specific set of practices recommended by one consultancy firm should be used as its global criteria: "our initial hypothesis is that while some management practices are too contingent to be evaluated as 'good' or 'bad', others can potentially be defined in these terms, and it is these practices we tried to focus on in the survey. To do this we used a benchmarking tool developed by a leading international management consultancy firm".

The survey did in effect test these assumptions, and found **that the favoured management practices were linked to higher labour productivity, higher return of capital (ROCE), and (weakly) linked to growth in sales. These findings are themselves interesting, as they are consistent with the view that these techniques have more impact on the distribution between employees and capital than on actual growth of the business.**

The 'good' practices include employment policies: "strong people management practices in that they adopt merit-based hiring, firing, pay and promotions practices." These employment techniques have 5 subheads, 4 concerned with positive practices of rewarding merit and building a trained workforce, and one concerned with 'fixing or firing bad performers'. But the detailed results are revealing: **PE firms are not significantly different on any of the four positive employment techniques – only on their propensity to 'fix or fire'.**

The other sub headings mainly responsible for PE firms' superior scores were 'lean manufacturing' techniques and process documentation and monitoring.

Finally,the survey foiund that "firms whose management performance was deteriorating were more likely to be taken over by private equity". This finding is in conflict with the productivity survey (USA-based) which found that the firms taken over by PE already had higher than average labour productivity.

## 2.2. Productivity

The productivity study is a follow-up to the 2008 study on employment, using the same methodology to create matched samples of workplaces from the USA over a long period between 1980 and 2007. It includes results on labour productivity and on the intensity of 'creative destruction' of jobs and workplaces.

### 2.2.1. Labour productivity in manufacturing

As with the preceding study on management practices, this 2009 study focuses only on productivity in manufacturing industries: "We restrict attention to the manufacturing sector for the productivity part of our analysis, because productivity measures are more widely available and of better quality for the manufacturing sector." (WEF 2009 p.27) It also restricts its attention to labour productivity (measured as real value added per worker) rather than 'total factor productivity' which also accounts for the efficient use of capital, for the same reason: "Total factor productivity, an alternative measure frequently encountered in the literature and that also accounts for capital services, is more difficult to compute using data available from the ASM and LBD" (WEF 2009 p. 31)

The study found that: "firms acquired by private equity had higher productivity than their peers at the time of the original acquisition by the private equity group" (WEF 2009 p. viii). The productivity of firms taken over by PE was 3.8% higher than the average for comparable firms. This indicates that PE groups' self-interest leads them to select better-performing firms: **the 'cherry-picking' gives them a ready-made set of better performing firms.** As noted above, this finding contradicts the results of the management practices study, which found that firms taken over by PE tend to be less productive than others. For the USA, however, the productivity study should be taken as far more reliable.

The study finds that PE firms increase this differential: after 3 years their productivity is about 5.2% superior to comparable firms. Overall in this period, PE firms have 9% growth in labour productivity compared with 7% in other comparable firms.

Over two-thrids of these productivity gains are associated mainly with restructuring at plants which remain open. However, none of this improvement is attributable to any improvement in organisation within each plant – after two years, existing plants which are still open have show slightly **lower** productivity gains compared with their counter-parts which have not been bought by private equity firms. All of the gains in surviving plants are attributable to re-allocation of work between existing plants. The other one-third of the productivity gains, compared with similar non-PE firms, come from the closure of old plants and opening of new plants (entry and exits) contributes 36% of the gains. The tendency of PE firms to buy and sell parts of companies (acquisitions and divestitures) actually makes "a small negative contribution to the differential in productivity growth." (WEF 2009 p.28)

**Table 1. Impact of PE on productivity after 2 years (compared with plants not bought by PE)**

| | Contribution to productivity | % increase in productivity |
|---|---|---|
| Better organisation within continuing plants | **None** | **-0.1** |
| Re-organisation of work across existing plants | **Positive** | **+1.3** |
| Closure and opening of plants | **Positive** | **+0.7** |
| Buying and selling firms | **Negative** | **-0.1** |
| TOTAL | | **+1.8** |

Source: calculated from WEF 2009 p.43 Table 6

### 2.2.2. Earnings of workers

The study shows that, for manufacturing firms, workers in PE firms lose their pay advantage for being more productive. At the time of takeover, earnings are 1.1% higher than average (with productivity 3.8% higher): after 2 years, although the productivity gap has widend, the pay gap has been wiped out completely: the earnings of workers in these firms are no different from the earnings of workers in comparable non-PE firms with 5.2% lower productivity. As the report says "These patterns together suggest that private equity firms are increasing the gap between productivity and earnings per worker." (WEF 2009 p.34) **Not only do workers not share in the increased productivity, they actually lose their previous pay advantage following a PE takeover**.

This strongly suggests a significant source of increased profits. Productivity – measured here as value added per worker - is increasing, faster than in other companies, but earnings per worker are growing less than in other companies. The gap is worst for existing workers at existing plants. The gap represents an increase in the share of profit as opposed to wages in the value added by the firms. More is available for distribution to PE groups and their investors because less of the growth is being allocated to workers. **Profits are being increased at the expense of earnings.**

The table shows the data from the new study, and adds the results of the 2008 study, which showed that PE firms also suffered extra loss of employment in the first two years.

**Table 2. Impact of PE on earnings per worker after 2 years (compared with plants not bought by PE) and on employment levels**

| | % change in productivity (value | % change in earnings per | % change in employment |
|---|---|---|---|

| | added per worker) | worker | |
|---|---|---|---|
| Continuing plants | **-0.1** | **-3.2%** | *-1.6%* |
| Overall | **+1.8** | **-1.1%** | *-4.5%* |

Source: calculated from WEF 2009 p.43 Tables 3, 4,5,6; and WEF 2008 data as set out in Hall 2008 **table 2.**

### 2.3. 'Creative destruction'

The 2009 study also confirmed the finding of the 2008 study that firms and workers taken over by PE "experience an intensification of creative destruction. These findings of the 2009 study apply to all sectors, not only manufacturing.

It finds that all firms tend to shut down less productive plants, but that PE is much more likely to shut down 'underperforming plants' (as measured by labour productivity). Job creation and job destruction activity, establishment entry and exit, and establishment acquisition and divestiture (all relative to controls) are intensified in the wake of private equity transactions. The same patterns hold for private equity targets in the private sector as a whole." **As pointed out in relation to the 2008 study, this 'creative destruction' translates for workers into a massive increase in job insecurity.**

Alarmingly, it found that PE firms are more likely to shut down plants in periods – like the present – when there is a wide gap in interest rates charged to top-rated and other forms**. In effect, PE groups respond to higher cost of borrowing by even greater job destruction.**

## 3. Private equity association reports

The British and the European associations of private equity firms have both produced recent reports with some claims concerning PE and employment.

### 3.1. Basic error by BVCA and Ernst and Young

The British Venture Capital Association (BVCA) published a report by Ernst and Young on various aspects of PE companies. It can be briefly noted that this suffers from the basic methodological flaw of no comparison with a matched group of similar non-PE firms, and so its data fails to justify conclusions about the distinctive contribution made by PE.

Amazingly, Ernst and Young and the BVCA continue to repeat a simple mistake about the number of employees in the UK – despite the fact that we pointed out this mistake over a year ago. [1] The report claims that numbers employed by the companies they studied represent "1.5% of total private sector employment (18m)". (BVCA 2008 p. 4)

**But the figure of 18 million is wrong. All the conclusions based on it are wrong. It is not just an error of rounding, it is far, far smaller than the true figure of 23.6 million.** The true figure is not obscure, it is published every month by the National Statistical Office (see http://www.statistics.gov.uk/STATBASE/Product.asp?vlnk=1944 ).
Table 3 tries to make the mistake as clear as possible. The previous error by the BVCA led to the widely quoted, but wildly inaccurate, claim that private equity firms employed nearly 19% of the workforce.

**Table 3. Table: True NSO figures and False BVCA figures on UK employment**

| | TRUE employment figure as published by National Statistical Office | FALSE employment figure as published by Ernst and Young and the BVCA |
|---|---|---|
| Private sector employees | 23.60 million | 18 million |

Source: http://www.statistics.gov.uk/pdfdir/lmsuk0309.pdf

[1] See section 3.3, Table 3

### 3.2. EVCA and CMBOR: weak methodology

A report concerning private equity and employment was published at the end of 2008 by the European private Equirty and venture Capital Association (EVCA). The report was produced by the Centre for Management Buyout Research (CMBOR) at Nottingham University, which has produced previous studies.

The study suffers from most of the methodological problems identified in previous studies (see Hall 2007). It only studies PE firms, with no comparisons with other companies – the results could be identical or worse than other companies, for all the survey can tell us. It covers only PE firms which were still surviving at the time of the survey, and so cannot claim to be representative of all PE firms (the problem of 'survivor bias'). The sample companies were self-selecting: the researchers and EVCA contacted 2600 companies, but only 7.3% responded. All the information came from senior management, either the CEO or the HR director: this is especially problematic with questions of a qualitative nature such as " management attitudes to trade unions".

The data presented is also less than impressive. On earnings for example, the report does not use published company data. Instead it asked a question about whether the real earnings of non-managerial employees had increased, decreased or stayed about the same since the buyout . The answers are entirely dependent on the chosen response of the CEO, with no checking. They categories are vague, but even more meaningless because the answers are not analysed according to how long ago the buyout took place – 'no earnings increase' after 6 months is a very different result from 'no earnings increase' after 6 years, for example. (EVCA 2008 section 2.1)

On some issues the data is presented confusingly and bland conclusions are drawn which suggest that neither the data nor the issues discussed are properly understood. For example, it is not clear whether the data on attitudes towards trade unions concerns the changes following the buyout, or the actual levels at the time of asking the question. (EVCA 2008 section 4.1.1) , but the report confidently concludes that "The attitude of investee company managers towards trade union membership changed little as a result of the buyout". The next results show that union recognition fell from 41% of companies before the buyout to 39% after the buyout., which the report describes as 'slightly fewer' (EVCA 2008 section 4.1.2). If 1 in 20 firms that recognised unions cease to do so after a buyout, most people concerned with labour relations would regard that as significant. It also casts doubt on the previous conclusion that management attitudes showed no change: do the authors think that the termination of union recognition happened by accident, then?

The preface to the report, by the ECVA chairman Jonathan Russell, is a simple public relations statement insisting on the benevolence of private equity, which includes inane claims joined up to unsubstantiated assertions about evidence, which suggest that the EVCA is far more concerned about the image than the reality: "The good news is that private equity thrives on change and is only interested in buying or investing in a business if it can grow in value. So the opening mindset is positive. This is backed up by numerous studies showing higher growth rates in private equity backed businesses…..At the start of the decade there was some concern that private equity involvement was detrimental to overall employment levels. While this concern has to a large degree been addressed through rigorous research……". No references are given for the 'numerous' studies showing higher growth rates, and the evidence of the only truly rigorous study on employment effects, the WEF 2008 study, shows clearly that there are negative effects on employment. (see Hall 2008).

## 4. Crisis

PE groups face major specific problems as a result of the recession and credit crisis. PE-owned companies have been acquired using a lot of debt, they are vulnerable to much higher interest rates being required when the debts fall due; the profitable exit route was for PE groups to sell companies at a higher price after 2-4 years, but his has been made impossible by the collapse in the stock markets; and the sales and profits of PE-owned companies are as likely to be affected by the recession as any others.

A BCG report in January 2009 forecasts major problems for PE groups, the firms they own and their investors: "at least 20% of the 100 largest leveraged buyout (LBO) private-equity firms – and possibly as many as 40% - could go out of business within two to three years. More disturbingly, most private-equity

firms' portfolio companies are expected to default on their debts, which are estimated at £1 trillion" (BCG p.1).

The forecast of defaults is based on a BCG analysis of the debts of 328 PE-owned companies, in which it found that 50% of the companies will probably default during the 3-year period 2009,2010, and 2011. It estimates the total size of these defaults at about $300 billion - nearly half the size of the US sub-prime housing loans, and packaged into similar derivatives. BCG expect that these companies will be maintained as going concerns, as bankruptcy is not in the interests of the owners or debt-holders.

A commentary in the Financial Times in July 2009 echoed these forecasts: "Last year, the default rate in European leveraged loans – in effect, private equity debt – was under 5 per cent. So far this year, it is about 8 per cent. But for the full year, according to industry specialists, it could be a record 15 per cent. Repeat that next year, as is expected, and a third of European companies bought in the bubble years will have gone bust – many of them in the UK. As a weapon of corporate mass destruction, private equity's place in history seems assured." (FT 2009)

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