



Productivity - Working Smarter, not Longer*

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Many economists argue for longer (and more flexible) working times to be implemented in the economies of the “old” member states of the European Union. Thus a better adaptation to the demands of globalized competition should be achieved. On the other hand it is generally believed that reductions in working hours increase labour productivity. Many enterprises have recognized this relationship in their working time organization. There is some debate on the nature of this relationship and the factors affecting it. Recently however one can observe a trend towards longer working times. As the German case demonstrates the trade offs between working time, flexibility and employment have changed considerably.

Effects and preconditions of working time reductions

The changes in working time having the potential for generating productivity improvements are not only those regarding the length of working hours, but also those which affect the organization of working time. In addition, the way in which working time changes are implemented has further implications for productivity (ILO 2004). The following types of working time changes have the potential to contribute to improvements in labour productivity:

- *the length of working time*: the reduction of working hours, or at least reducing excessively long working hours (which the ILO generally defines as more than 48 hours per week);

- *the organization of working time*: the reduction of “unsocial” working hours (especially evening / night work and weekend work), the provision of appropriate rest breaks and daily / weekly rest periods, the minimization of “wasted” time and the introduction of worker-friendly working time arrangements (e.g. flexitime and work life balance concepts);

- *methods of introducing these changes*: proper consideration of workers’ needs and preferences in working time policies through consultations with the workers concerned. For example, workers’ needs and preferences need to be taken into account in determining shift patterns.

The available evidence indicates that improving working time arrangements by introducing the types of changes described above can have productivity-enhancing effects, which are similar to the effects of higher wages. With such improvements, workers can improve their mental and physical health and thus be more rested and alert during working hours, thereby improving labour productivity (such as reducing errors). Further productivity gains can be expected by improving staff recruitment, retention, motivation and commitment. Three mechanisms (among others), through which better working time arrangements can translate into higher productivity, are particularly important:

- *Physiological effects*. The fundamental connection between working time and productivity exists at the physiological level. For

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** The European Association of National Productivity Centres was established in 1966 as a successor body to the European Productivity Agency. Its purpose is “to facilitate and increase exchanges of information and experiences, and arrange cooperation among participating bodies” (<http://www.eanpc.org/>). Its seat is in Brussels. Today EANPC has 13 member organisations.

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example, it is well known that long hours are accommodated by an adjustment of pace or work intensity, such as a slowing of movements and inserting more pauses between movements. Thus, the extension of working hours may not yield the expected increases in total output, and may possibly lead to a reduction of total output in the long run which in fact is not a new insight: A century ago Max Weber incidentally mentioned that "the workday in Germany is 10 hours, in some trades nine hours, and in others even more than 10 hours; but it has been observed that long hours are by no means identical with increased production." (Weber 2005). Conversely, the reduction of working hours can be at least partly offset by increases in the pace of work without causing physically harmful consequences.

- *Motivational effects.* Better working time arrangements can have motivational effects by obtaining the psychological willingness of workers to use their energy in more efficient ways. Such motivational gains, however, might be lost if management does not recognize them and takes no steps to change working time practices and methods to make use of and secure these gains. It is also known that these effects can only be expected if there is a positive cooperation between managers and workers in an enterprise, which provides a facilitating environment for a positive reciprocal relationship between better working time arrangements and higher labour productivity.

- *Improved organization of work.* Changes in working time can induce a series of productivity-enhancing changes in work organization. They may invite management to identify and reduce "non-productive" time that arises due to inefficiencies in scheduling and methods of supervision.

There is a substantial body of empirical evidence demonstrating that reductions in excessively long hours of work - typically linked with changes in work organization, methods of production and similar factors - have resulted in substantial productivity gains over the years. The historical data presented in the table below, which shows developments in working time, productivity per hour and GNP per capita for five industrialized countries (France, Germany, Japan, the United Kingdom and the United States), illustrates this phenomenon.

In all of these countries, a rise of GNP per capita and labour productivity per hour was accompanied by a reduction of working time. In the last 120 years the productivity per hour worked has much more increased than income (GNP per capita). This development made it possible to distribute productivity

gains in the form of reduced working time and increased income.

Tab: *Development of working time, productivity and gross national product per capita in five industrialized countries (1870 to 1992 in %)*

	USA	Ger-many	Japan	France	UK
Working time	- 46	- 47	- 36	- 48	- 50
Productivity per h worked	1288	1735	4352	2128	919
GNP p. cap.	919	998	2632	967	502

Source: Bosch and Lehnendorff 2001

Furthermore Bosch and Lehnendorff (2001) argue that the reduction of working time partly contributed to the productivity growth that occurred in these countries. Reduced working time may lead - with a certain time lag - to changes of the work organisation, e.g. new shift organisation and more flexible working time management systems (Bosch 1998), as well as to labour saving capital deepening. Thus reductions of working time are not only issues of distribution policy but have also positive impacts on work organisation, companies' running times and technological equipment.

Europe's higher rates of working time reductions clearly cause lower GDP per person values compared to the US economy. However, as MIT professor Olivier Blanchard explained in an interview, "if you want to caricature the situation, you could say that the Europeans have been much more productive than people in the US, but rather than getting the benefits in the form of higher income, they have chosen more free time." (Blanchard 2004)

Finally, there are also numerous enterprise-level studies that show the business benefits of adopting flexible working time arrangements that allow workers to organize their working hours in ways that promote work-life balance. For example, one study of six large American companies found that 70 per cent of managers and 87 per cent of workers reported that working time arrangements which allowed workers to adjust their work schedules in response to their individual needs, such as flexitime and telecommuting, had positive or very positive effects on productivity (Boston College Center for Work and Family 2000).

A UK case study

In a series of case studies, including one involving a Unilever Foods margarine plant, the UK's department of trade and industry attempted to show how it is possible to increase productivity while moving away from

routinely relying on workers and managers working long hours [El Amin 2005].

Unilever Foods UK at Purfleet in Essex is the world's largest spreads factory. About 300 employees run a 24-hour, seven day operation that produces about a million tubs per day of brands such as Flora, Stork and Bertolli.

The case studies describe a variety of techniques that companies have used to change employees' working times. These include a move to annualised hours and an introduction of flexible working and lean manufacturing.

Most of the companies cited in the case studies as "champions" of the new workplace encountered some opposition along the way. However effective planning and a clear business rationale ensured that companies achieved tangible results, the department stated.

One such example was Unilever's margarine plant in Purfleet, which was becoming increasingly vulnerable to both external and internal competitors, with spiralling labour costs and low productivity.

The company responded by introducing annualised hours, abolishing overtime and moving to seven-day continuous shift working resulting in increased employees' leisure time and dramatic improvements in operational efficiency, the report stated.

In the late 1980s, an overtime culture that led to chronic overmanning, spiralling labour costs and low productivity had left Purfleet as a laggard in Unilever's highly efficient Dutch and German operations.

The company made the changes following 18 months' negotiations with its unions, resulting in a new employment contract. Every employee was contracted to work 1,779 hours in a year. About 1,700 of these hours were accounted for by rostered shifts, leaving a bank of 75 to 80 for training, meetings and other activities.

The company could also ask workers to supply up to 282 additional paid hours, called 'Committed Hours', for contingencies such as short-term sickness, poor efficiency or plant failure.

The changes led to dramatic improvements in operational efficiency - from around 40 to 50 per cent in the first year, climbing to a peak of around 70 per cent by 2000. Productivity per head is now higher than in any other Unilever spreads factory.

Absenteeism halved since the changes to about two per cent - below the industry average.

While wages increased by about 30-35 per cent, total labour costs did not rise because of huge reductions in overtime pay.

Benefits to the employee include higher levels of basic pay, all of which is pensionable. Employees have also benefited from a huge increase in leisure time. Four 12-hour shifts are followed in winter by a five-day break and in summer by a three-day break. There are three rostered holidays, two of 12 days and one of 18.

Practical problems arose from employees' initial lack of trust in the annualised hours system and how it would affect their leisure time. Many were difficult to contact which meant the system relied on a committed few who were called in disproportionately.

Unilever solved the problem by splitting each shift into three standby groups. Standby times were rostered into shift patterns so people knew when they were likely to be called in.

The company promised they could only be called in once during a three-day break or twice in a five-day break, and that they would have at least 36 hours break between calls.

Some German experiences

The case study presented has been carried through in the 1990 years, and it seems to be an old fashioned one if you take a look at the recipes proposed by economists all over Europe: employees must work longer and earn less [prolonged working time without wage compensation is one of the most used "instruments"] in order to cope successfully with global competition.

Against mainstream arguments one should consider that *labour productivity* is more important than *labour costs* which are of course high in high industrialized countries: "Thus, 'unit labour costs' are all important for national and corporate competitiveness", as Tony Hubert, former EANPC secretary general argues in one of his p-Watch articles for Asian Productivity Organisation. "So, too is the quality of tangible and intangible national infrastructure, such as transportation and communication systems and the educational quality of a nation's workforce. In all these respects, high labour-cost countries outperform their cheaper rivals considerably." (Hubert 2002). And again Max Weber stated the now standard formula of low wages structure preventing productivity enhancing investment: "cheap labor sets a smaller premium on labor-saving machinery" (Weber 2005).

However – as can be shown for the German case – the challenges of globalisation may be used by some employers as arguments for continuous aggravations of working time and wage levels. From the mid 1980 years working time reductions have been achieved in the form of a trade off between reduction and flexibilisation of working times. Due to raising unemployment in the following decade this pattern changed giving way to working time reductions aiming at preventing massive layoffs. Since the end of the 1990 years we are witnessing a new phase of working time policy – on the one hand extended working times for the full time employed while, on the other hand, marginal employment (e.g. “mini” and “midi” jobs) in the low wage sectors is growing. This polarization trend is simultaneously accompanied by increasing shift, night and weekend work, a shift from homogeneous to variable working times and a creeping process towards unpaid working times (Anger 2006) which is not only limited to overtime. At the same time many workers are complaining work intensification, working times are more individualised, and – like market and performance orientation – the productive use of working time is increasingly internalised as operation logic (Jürgens 2007).

Conclusion

Increasing productivity may be distributed in the form of reduced working times and higher income. Reduced working times (by forcing employers to reorganization) and higher income (by increasing demand) in turn have a positive impact on competitiveness and productivity. Why then do we observe downgrading working conditions at least in some of the “old” European countries?

First, the negotiation power of trade unions as drivers of working time reductions are weak compared to earlier times. High unemployment, loss of members, more individualised attitudes among workers, problems of recruiting white collar and service workers – all this contributes to a management-workers disbalance of power.

Second, global competition exerts massive pressure on management and workers. The easy way to cope with problems seems to be the “low road” strategy which however is a short term solution. Instead, sustainable strategies should stress organizational flexibility, product and service quality, greater individual autonomy, elimination of repetitive jobs, workers’ skills, close management-labour cooperation, R&D, reduced bureaucracy, occupational health and safety, customer orientation, market-driven product and services development, process innovation

and energy-efficient production (cf. Hubert 2004 and EANPC 2005).

Regarding working time our societies need solutions reconciling work and family and, for demographic reasons, age-based working time arrangements.

There is no automatism in achieving such a “high road to wealth” (EANPC 2005). Each partner organisation is called upon to support this joint endeavour which is in line with EU Commission’s plea for more and *better* work places. But “so far productivity’s blessings have been mainly limited to increasing company and investor profits”, US economist Michael Manson (2004) says. “That, of course, is not the fault of productivity per se. The challenge remains [...] to ensure that the tremendous strides in productivity have an uplifting effect on society as a whole.”

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