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Flexible Working Time in Germany and its economic effects

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Helena Strzemińska (Ed.)

WORKING TIME
AND ITS ORGANIZATION
IN NEW MEMBER STATES OF EU
ECONOMIC, LEGAL AND SOCIAL ASPECTS

IPISS

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# 2. Flexible working time in Germany and its economic effects (*Karl-Friedrich Ackermann*)

# I. Flexible working time in Germany. Some statistics and comments on the present state

### 1. What types of Flexible Working Time are applied and how frequently

The present state of flexible working time in German companies is shown in Fig. 1, based on mass statistical inquiry in a representative sample of large, medium-sized and small companies from various sectors of German economy.

Figure 1
Application of Selected Types of Flexible Working Time Schedules in Germany in the Years 2001 and 2005

Types of Flexible Working	Measure	Year	
Time investigated		2005	2001
(1)Paid overtime work	Hours per employee and week	1.0	0.7
(Contractual working time in brackets)		(38.8)	(37.4)
(2)Part-time work	Percentage of total employees	21.3	20.0
(3)Saturday work	Percentage of total employees	20.2	18.0
(Extended working week)			
(4)Sunday work	Percentage of total employees	9.5	11.0
(Extended working week)			
(5)Staggered work schedules	Percentage of total employees	23.8	15.0
("versetzte Arbeitszeiten")			
(6)Shift Work	Percentage of total employees	21.0	18.0
(7) Time accounts	Percentage of total employees	48.0	40.0

Source: Sozialforschungsstelle Dortmund 2006).

It is shown, that the term "Flexible Working Time" covers a wide range of very different working time schedules, which in general, are frequently applied with an increasing tendency in the period from 2001 to 2005. There are other well known working time schedules, also called "Flexible Working Time", but not investigated in the study; among them are:

- Flexitime, the prototype of Flexible Working Time, and far more applied than Part-time;
- Temporary Employment Contracts ("Befristete Arbeitsverträge"), which have become the rule for new recruits;

- country-specific types of Flexible Working Time such as "Differentiation" and "Variation" of the individual regular working time per week, "Annual Working Time Contracts", (Jahresarbeitszeitverträge), "Work on demand" ("Arbeit auf Abruf") and "Short-time Work" ("Kurzarbeit");
- "Temporary Work" (Zeitarbeit), which has become a very rapidly increasing form of employment, also called "manpower leasing" ("Personalleasing") or "supply of temporary workers" ("Arbeitnehmerüberlassung").

What all those working time schedules have in common is that they make the available working time more flexible either in terms of chronometry (longer or shorter working of individuals, groups or even of a company's total labour force on demand of the company or on demand of the employees) or in terms of chronology (working at varying points of time during a day, a week or even a year, including at night, on Saturdays and Sundays).

It is extremely difficult to answer the question how the present state of Flexible Working Time is to evaluate, because there are many stakeholders with various requirements to working time at the companies:

- (1) the companies themselves who want as much flexibility of working time as possible and needed in order to improve and to sustain their competitiveness in global markets;
- (2) the employees who pursue their own individual working time wishes, depending on family status, age and gender, personal preferences and health condition, perceived traffic infrastructure on the way to and from the working place and other influencing factors (e.g.: opening hours of kindergarten and schools, time table of public local traffic etc.);
- (3) the customers, who demand for customer-friendly working time regulations, whatever this may mean, e.g. open shops in the late evening, on Saturdays and Sundays;
- (4) employers' associations and trade unions who represent the interests of their members (or what they believe to be the interests of their members) in labour negotiations on working time in the companies;
- (5) government and governmental agencies who are expected to set minimum standards for Flexible Working Time and also to initiate and to promote special types of Flexible Working Time if in line with official goals of policy such as reduction of unemployment, social security, work and life-balance or equal rights and opportunities for men and women in their professional career.

These and other stakeholders will evaluate the present state of Flexible Working Time, shown in Fig. 1, very differently. Many of them will see a success of joint endeavors for more Flexible Working Time compared with standard working time in the past, others will criticize not enough or already too much flexibility in general or referred to specific types of Flexible Woking Time. Overtime work, Saturday and Sunday work and also Shift Work (including the night) are most frequently subject of critical comments.

### 2. Scientific fundamentals of Flexible Working Time Management

Flexible Working Time and its management is subject of interdisciplinary research.

(1) Management theories state that an increase of working time, says from 35 hours to 40 hours per week, will allow an increase of production followed by a decrease of production unit costs, if the proportion of fixed costs is high. Constant prices for each additional sales unit presumed, profit will be increased due to longer working time<sup>1</sup>. Furthermore, manpower needs related to a specific amount of production units will decrease, of individual working time is prolonged according to the general formula:

# Working time per unit x number of units Individual Working Time in the Period considered

- (2) According to ergonomics, individual productivity will decrease in general beyond the 8 hours per day limit. During the day, ups and downs of performance capability are described by the so called "physiological working curve". Opposite to machines, men are not able to perform continually if working time becomes longer and longer<sup>2</sup>.
- (3) Behavioral sciences stress the point, that working time regulations should consider the <u>desired</u> working time of the employees as a very important facet of overall work satisfaction. It is well known that high work satisfaction has a positive impact on productivity, absenteeism and turnover of the labour force<sup>3</sup>.

These and other scientific insights might help to design and implement flexible working time systems which meet the requirements of the company and the expectations and wishes of the employees as well. To realize this idea, requirement analysis of working time and systematic organisational surveys are suggested.

# 3. Attitudes of employees to present working time condition. Feedback from organisational surveys

The question is: how satisfied are employees with the present working time conditions? Do those conditions meet the needs and expectations of the employees involved? If yes, a positive impact on total satisfaction in the company is expected; if not, total satisfaction will be lower. Results from scientific research show that total satisfaction of the labour force is a critical success factor for productivity, absenteeism and turnover rates and for other important measures of the company such as customer satisfaction, attractiveness as an employer on the labour market etc.

Deelen (1987).

Müller-Seitz (1996).

<sup>&</sup>lt;sup>3</sup> March, Simon (1958); Lawler (1971); Neuberger (1974); Rosenstiel (1980).

It is therefore important for the companies to know, whether employees are satisfied with working time or not. An unpublished empirical study of ISPA consult in German metal industry, aggregating numerous organisational surveys in the time period from 2004 to 2005 gives the answer<sup>4</sup>. From n=11.900 employees who joined the surveys:

- 44% are highly satisfied with the present working time conditions in their companies,
  - 43% are satisfied.
  - 10% are dissatisfied and 3% are highly dissatisfied.

The level of satisfaction is reasonable high taking into account that working time schedules are and will be always a compromise between job requirements and individual working time wishes. The main reason for rather high satisfaction might be that employees often have the choice among a variety of attractive Flexible Working Time schedules and can select, what fits best their personal preferences. Working flexitime is a good example. Another one is the claim of each full-time worker to change to Part-time according to the rules of the Part-time Act 2001 and back to Full-time if this is wanted to. Nevertheless, Flexible Working Time might be connected with some dysfunctional consequences for the private sphere of the employees, including family life, hobbies, social networking with friends etc., which will suffer long-term, when employees would change their working time without any fixed structure or announcement. Flexible Working Time requires flexible people both in work life and in private life as well.

### 4. Analysis of potential Flexible Working Time

There is a large, not yet used potential for extended Flexible Working Time applications. Each type of Flexible Working Time listed in Fig. 1 could be applied to more employees within a company and, also, to more companies, if this is required and wanted to.

An empirical study, conducted by the "Institut der Deutschen Wirtschaft" states that among all companies investigated, 61% apply "Part-time Work", 51% "Flexitime" either with or without obligatory presence modules (33% and 18% respectively) while 22% of the companies apply Shift Work. It becomes obvious, that there are quite a lot of companies left who might want to introduce one or the other special type of Flexible Working Time. An attempt is made in the following to analyse the potential in some details.

(1) <u>Payed Overtime Work</u> could be increased up to the limits of 48 hours per week or even 60 hrs per week permitted by the national Working Time Act ("Arbeitszeitgesetz") from 1994. However, there are good reasons not to do that, among them:

<sup>4</sup> ISPA consult (2006).

<sup>&</sup>lt;sup>5</sup> Institut der Deutschen Wirtschaft (2003).

- decreased productivity beyond 8 hours per day according to ergonomic studies;
- increased labour costs because of additional overtime pay according to labour agreements;
  - resistance to more Overtime Work by trade unions and workers' councils;
- existence of other Flexible Working Time alternatives which make more Overtime Work obsolete:
- (2) <u>Part-time work</u> is expected to increase in the forthcoming years. Take the Netherlands as a benchmark, where more than 46% of all employees are identified as part-time workers in recent EU-statistics. Compared with the Netherlands, Germany's proportion of 21.3% is rather low. Since 2001, the national Part-time Work Act ("Teilzeitgesetz") guarantees the right of each full-time worker to change to Part-time Work if employed in the company for at least six months. Interesting enough, it is the employer who has to prove that the company is not in the position to fulfil the request of the employee to work part-time;
- (3) <u>Work on Saturdays</u> is nothing special according to the national Working Time Act ("Arbeitszeitgesetz") already mentioned, which considers each Saturday as a normal working day like Monday or Tuesday. However, trade unions and workers' councils strongly resist to the further expansion of Work on Saturdays, still defending their traditional goal of the 5-days-working week with a 2-days-weekend for recreation and private life. In spite of their resistance the new Shop Trading Hours Act ("Ladenschlußgesetz") was introduced, allowing shops to be opened on Saturdays;
- (4) <u>Work on Sundays</u> is different and will always remain an exemption, because Sundays are protected by law and also by Christian tradition for mental and physical recreation. Nevertheless, there are well-accepted reasons for Work on Sundays, e.g. work in the public services, work in industry if required by technology applied etc.;
- (5) <u>Staggered Work Schedules</u> for groups or individuals have become very popular when experience-based manpower planning shows that a varying number of staff members is needed in a department, e.g. in a call center. The number of employees working under such a time regime is expected to increase with the ongoing change from an industry-focused to a service-focused economy. To give an example: one employee will start working at 7 a.m., three others at 8 a.m. and the rest of the group at 9 a.m. with the same or different lengths of times on the basis of a daily manpower need analyses, saying how many employers must be present in the department at each point of time during the day;
- (6) <u>Shift work</u> is traditionally focused on specific branches of economy such as chemical industry, automotive industry and other mass production industries. Now, it is expanding to service industry as an excellent tool to reduce costs and to make better use of available capacities. Shift work can be easily mixed with other types of flexible working time, e.g. with part-time work, Saturday and Sunday work and others:

(7) <u>Time accounts</u>, including short-term and long-term time accounts are booming, since the legal framework provides proper protection against losses of time credits in the case of company's illiquidity [see the so-called Part-time Work Act ("Teilzeitgesetz") from 2001].

In summary, German companies dispose of a wide range of Flexible Working time schedules to meet different requirements, either as single tools or in combination.

# 5. Labour force segmentation, New Psychological Contract and demand for employability

Flexible Working Time has produced a new labour force segmentation composed of two main categories of employees in a company:

- a decreasing number of permanent workers ("Stammbelegschaft") who work full-time with an unlimited employment contract and are expected to stay in the company during their whole professional life;
- an increasing number of Part-time Workers, Fixed Time Contractors, Temporary workers and others who might be identified as secondary workers ("Randbelegschaft"), in general less closely connected with the company.

Of course, the proportion of permanent workers and secondary workers will strongly vary from company to company. The phenomenon as such has been recognized for many years and gave rise to some thoughtful considerations.

Some writers came out with the idea that the traditional life-long employment contract has been already substituted by a new employment contract, called the "New Psychological Contract". This one will encourage employees to take over the new role of a "manpower entrepreneur", who is permanently on search for higher benefits. His or her decision to stay in or to leave the company, then, is a matter of rational choice among two or more employment alternatives.

Another idea, closely related to Flexible Working Time, is the demand for  $\underline{\text{in-ternal employability}}$  (within the company) and for  $\underline{\text{external employability}}^7$ . The last one should enable employees to move from one employer to the next one and requires more and better training.

# II. Personal experience and research on the economic effects of Flexible Working Time (Storytelling)

## 1. Economic effects as a subject of research

The economic effects of Flexible Working Time are a very challenging subject of interdisciplinary scientific research, in particular of management science research which has focused on two questions:

<sup>&</sup>lt;sup>6</sup> Hiltrop (1995); Stone (2001); Fisk (2002); Nelson et al (2006).

Ackermann (2005).

- (1) How to measure the economic effects of Flexible Working Time schedules on business (micro-economic) level and, still more interesting,
- (2) How to design and select Flexible Working Time schedules which produce and hopefully optimize the economic effects desired by company management.

The following report is based on a new method, called "Storytelling", which provides authentic information on what happened by focusing on personal experience and on own research and consulting work. Storytelling will help us to look behind the present state of Flexible Working Time which has developed in the course of some decades and is the result of a rather complex process driven by management decisions, stimulating laws and labour agreements, and, last but not least by the pressure of the labour force.

# 2. The starting point: completely scheduled and uniform standard working time in the companies

When I started working at the end of the fifties and the beginning sixties, completely scheduled and uniform standard working time was the rule all over the country. Length of time (some 45 hours per week in those days) was determined by labour agreement, while the official beginning and the end of the daily working time was determined by management decision, and so was the distribution of the working time over 5 days since Monday to Friday.

As I worked with a very large company, thousands of workers queued up every morning to pass the mechanical time recorders at the entrance doors of the plant. Time control was very strict in those days; time recorders printed in black when arrival time was before the beginning of the daily working time, in red when the worker was too late. The red printed time control cards were immediately dispatched to the superiors who were eager to announce sanctions for repeated cases of being too late, e.g. pay reduction or even dismissal. There was very strict control in the evening as well. Nobody was allowed to leave the plant before the end of the daily working time, if he or she didn't have a special permit from his or her superior.

To be precise, there was already a minimum of flexibility in terms of 3-shifts-work in production, overtime work in almost all departments, pre-forms of temporary works and also some part-time workers restricted to cleaning and telephone operation. However, the bulk of blue- and white-collar workers worked full-time on the basis of a life-long employment contract in a completely scheduled and uniform working time schedule. So far as I can remember, nobody asked for alternatives and nobody was asked.

Faust (2006); Thier (2006).

It is rather easy to criticize those working time schedules from a present point of view as old-fashioned, bureaucratic and, maybe, even as inhuman and discriminating for female workers. However, this critics is only partially justified:

- strict working time control was well in line with the dominating "Scientific Management" approach with its underlying model of man (people don't like to work and try to avoid it);
- the working time schedule applied perfectly met the requirements of the company and was a part of the norms and values widely accepted by the workers. Women were a very small minority in the company and not expected to express special wishes regarding working time;
- legal framework in those times supported the existing working time schedule.
   Neither employers' associations nor trade unions or workers' councils showed a strong interest in any kind of flexible working time for whatever reasons.

#### 3. Emerging Flexitime: a company's response to rush hour issues

In the sixties, I joined a management institute at the University of Mannheim which started a first research project on Flexitime in a high-tech company. Full-time workers in this company were enabled to decide themselves when to go for work in the morning and when to leave their working place in the evening, within a given time span of discretion. The basic idea was very simple: Flexitime should help the employees to reduce their travel time to and from the company's location. According to complaints of the employers, (unpaid) travel time in the morning and in the evening was rapidly increasing because of the growing number of the labour force and the growing proportion among them who used their own car. The new flexible working time schedule was expected to improve the traffic situation and to avoid traffic congestion in the neighbouring streets to and from the company. Many other companies recognized a similar situation in their environment and started imitating Flexitime.

When Flexitime was introduced, social arguments prevailed. There was no or very little knowledge on its economic effects and the consequences to be expected after the basic model was varied in different ways. Early Management science research identified four major effects:

- (1) increase of work motivation and satisfaction of the workers;
- (2) reduction of overtime and connected overtime costs;
- (3) reduction of absenteeism and connected costs;
- (4) increase of productivity for ergonomic reasons when workers are enabled to adapt their working time to their individual curve of physical work capacity

Later on, a fifth effect of Flexitime became obvious: Flexitime makes employers more attractive for job-seekers in times of "War for Talents".

In order to optimize those effects, various types of Flexitime were elaborated and tested, including extended periods of balancing time savings and time debts of Flexitime-workers during the year, reduced or abandoned obligatory presence modules, free choice at the end of the year to transfer parts of the time savings to

long-term time accounts for sabbaticals and early retirement, expanded application of part-time workers ("flexible part-time") and other changes such as the substitution of mechanical time control either by electronic time control or, still more progressive, by self-control ("Vertrauensarbeitszeit") of the workers<sup>9</sup>.

To be successful, Flexitime needed a new management concept instead of traditional "Scientific Management". Such a concept was offered in the seventies and eighties under the labels "Management by Self-Direction and Self-Control" and "Management by Objectives" (MbO), who both addressed to a new model of man, characterized by a strong need for responsible work and for own decision-making referring to work and work conditions. It was recognized, that Flexitime fits very well the new philosophy. In the meantime, Flexitime is a fully accepted component of MbO which is directed to meet the growing demand for more flexibility of the companies.

### 4. Research projects on Part-time Work

For a long time, Part-time Work was the typical employment system for unskilled or semi-skilled female workers in offices and retail shops, but not for male professionals and managers. However, at the beginning of the 80s, Part-time Work reached a proportion of 8.7% from all people employed. There was a socioeconomic discussion on how to expand Part-time Work in private and public organisations in order to improve employment and career opportunities for working women. There was also a beginning discussion on Part-time Work for men, who still rejected the new type of employment because of traditional reasons.

The time was ripe for intensified management science research, covering a wide range of issues among them:

- Measurement of Part-time Work's economic effects;
- rational choice between Full-time Work and Part-time Work;
- implementing Part-time Work for Professionals and Managers. The "Mobile Time-Project";
  - Part-time Work Act ("Teilzeitgesetz") and its consequences for the companies.
  - a) Measuring economic effects of Part-time Work

Two questions were subject of a first research project in the 80s:

- (1) what are the criteria to measure economic effects of part time work?, and
- (2) what is the result of measuring economic effects of part time work, if those criteria are applied?
- Ad (1): The measurement of the economic effects is by no means easy. The reason is that not a single criteria, but a large variety of criteria are to be consid-

<sup>&</sup>lt;sup>9</sup> Hoff (2002).

Note that the introduction of Flexitime within a MbO-concept means a strong change of former tradition and challenge for all members of a company, for managers and for workers as well. It should be carefully prepared, therefore, e.g. by proper training and coaching.

ered. Our research work suggested a multi-level criteria catalogue, composed of four levels of economic effects (environmental effects, company effects, group and individual effects) and 3–4 major categories of effects attached to each of theses levels. To specify the categories 1–5 indicators were applied.

- Ad (2): The multi-criteria analysis of 70 studies on Part-time Work showed at least two strong benefits<sup>11</sup>:
- on <u>company level</u>: increased efficiency, due to higher performance and lower labour costs, absenteeism and turnover of part-time workers compared with full-time workers:
- on <u>individual level</u>: increased work satisfaction of the labour force. This effect was most frequently observed when the workers had free choice between part-time work and full-time work.

According to the study, the introduction of Part-time Work was not only in line with the required social responsibility of the companies towards society but also with their genuine economic and social (human) goals.

A purpose of the study was to show that there are not only social and political reasons for more Part-time Work in the companies but also economic benefits which should support the increased application of Part-time Work.

b) Rational choice between Full-time and Part-time Work

Part-time Work has two possible sources:

- (1) the transfer of an existing full-time job in one or several part-time jobs (e.g. Job Sharing);
  - (2) the creation of one or several new jobs as part-time jobs.?

It is understood that not every job will be suitable for Part-Time Work, but if, a rational choice between Full-time and Part-time Work should be made from case to case to maximise total benefit for the company.

For this purpose a second research project on Part-Time Work suggested specific Cost-Benefit-Analysis, called SAMASY, a formal procedure to identify the working time schedule among a limited number of alternatives with the highest total benefit in terms of pre-defined weighted criteria. Those criteria could be taken from former research work. In a best case situation, each company would select its own criteria and its own weighting factors, thereby creating a tailor-made evaluation model for decision-making in the area of Flexible Working Time – management<sup>12</sup>.

c) Implementing Part-time Work for Professionals and Managers. The "Mobile Time Project"

In the 90s the German Ministry of Family, Seniors, Women and Youth took the initiative for a very ambitious project, called the "Mobile Time Project".

<sup>&</sup>lt;sup>11</sup> Ackermann, Mez (1983), S. 597 ff.

Note: SAMASY was used for company-internal purposes only.

Three specialized Working Time Research and Consulting Institutes were employed to cooperate with about 100 companies in order to introduce or to expand already applied Part-time Work for professionals and managers in the course of 3 years. The general goal was to produce a broad data base for a handbook to be published at the end of the project for all companies who wanted more knowledge and best practise-examples on implementing Part-time Work for Professionals and Managers<sup>13</sup>.

For the Ministry, the economic effects of Part-time Work were rather side effects, while family policy and promotion of Female Work in the society were of primary concern. To motivate enough companies to join the Mobile Time Project, however the expected economic effects received much more attention.

Some unexpected results of the research are listed below:

- (1) few managers and more professionals are already working part-time. But many more would like to change from full-time to Part-time Work;
- (2) at a first glance, job requirements are the main reasons for managers and professionals, not to work part-time. The research shows that in many cases, job requirements can be more or less easily changed by optimizing structures and processes in the companies to allow part-time work;
- (3) whether or not, managers and professionals work part-time is less a question of technical feasibility, but more one of organisational culture and of the preferences of the Board of Directors;
- (4) for managers, part-time models focusing on 4 days instead of 5 days per week seem to be the most preferred ones.

The conclusion was that speeding up the application of Part-time Work for professionals and managers, law should strengthen the rights of the employees to choose part-time work if they want to.

d) The Part-time Work Act ("Teilzeitgesetz") since 2001 and its consequences

In 2000, a rather high percentage of employees amounting to 1/3 of the total working population would prefer to reduce their present working time per week of roughly 40 hours by 2–5-hours. One year later, the Part-time Work Act ("Teilzeitgesetz") was introduced which, for the first time in history allowed all employees to change from Full Time to Part-time Work under specific prerequisite, including <sup>14</sup>:

- (1) Employment in the company at least since 6 months,
- (2) Admission of the employer.

However, if the employer rejects, he or she must give good reasons for the decision which might be examined at the labour court. The Part-time Work Act also enables employees to return from Part-time back to Full-time Work, receiving

Bundesministerium für Familie, Senioren, Frauen und Jugend BFSFJ (1998).

Ackermann, Heckel (2001), S. 663 ff.

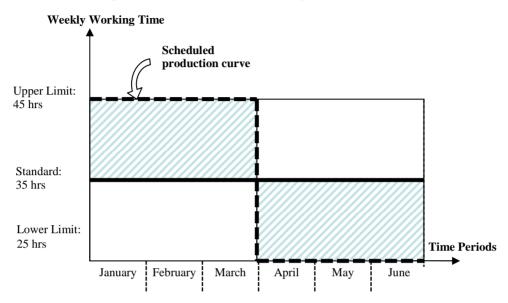
priority against other candidates. This and the obligation of the employer, to advertise all vacant jobs in the company also for part-time workers, has abolished the traditional discrimination of Part-time Work.

# 5. New tools of Flexible Working Time in labour negotiations. The price for the 35 hours week

In 1984, a very special labour agreement in metal industry had the headlines. It opened the door for a completely new set of flexible Working time schedules in the companies. While the trade union party ("IG Metall") was fighting for a reduced length of weekly working time connected with full pay compensation from 40 hours to 35 hours, its counterpart, the responsible Employers' Association (VMI) offered admission, but wanted to minimize the resulting damages for competitiveness in the world markets by demanding higher degrees of flexibility in working time. After difficult negotiations and strikes, a compromise was finally achieved including:

- (1) The step-wise reduction of the working time to 35 hours per week for all employees in metal industry, full pay compensation provided, as wanted by the trade union;
- (2) Restricted application of reduced working time. The reduced working time should not be applied to special target groups in the companies which were allowed to continue working for 40 hours per week on request of the company. This new tool of Flexible Working Time was called "Differentiation" because for the first time in the history of labour negotiations, there was no longer the one single weekly working time for all employers, but since then on differentiated weekly working times, which allowed companies to have their experts and key performers working longer than the remaining bulk of their labour force. Originally, the proportion of longer working employees was restricted to 10% or 18% of a company's total labour force depending on the region of labour negotiations. Since 2005, when a new agreement between the two social partners was closed at Heilbronn ("Heilbronner Abkommen") this percentage can rise up to 50% under defined prerequisites.
- (3) The most important contribution to Flexible Working Time however, is "variation". "Variation" means that the standard working time agreed upon, say 35 hours per week, must be reached on the average of a defined period of time, e.g. within 6 months. The following Fig. 2 shows an example.

Figure 2 A Simplified Model of Flexible Working Time by "Variation".



Company may decide in cooperation with Workers Council that Working Time in the first 3 months will be 45 hours per week and in the following 3 months 25 hours only, while the employees receive their unchanged pay during the whole period based on 35 hours per week<sup>15</sup>.

## **III. Flexible Working Time with Time Accounts**

Individual time accounts for employees are an absolute "must", whenever employees are allowed or forced to work more or less than the contractual working time. They show the contractual working time and the daily deviations of real working time in terms of working time savings ("Zeitguthaben") and working time debts ("Zeitschulden"), resulting in a positive or negative balance at the end of the month.

## 1. Studies on the time accounts applied

Nor surprising, individual time accounts are closely connected with Flexible Working Time and as widespread as Flexible Working Time is. The SFS-study, already cited (see Fig. 1 above) counted 48% of all employees working with time

<sup>&</sup>lt;sup>15</sup> Note: the multitude of tools required comprehensive planning of flexible working time. See Ackermann (1986, 1987), Ackermann, Hofmann (1988, 1990).

accounts. A more detailed study of WSI in 2004 and 2005<sup>16</sup> applying another data collection method gives some more insights; three main types are distinguished and quantified:

- (1) short-term working time accounts ("Kurzzeitkonten") up to one year,
- (2) long-term working time accounts ("Langzeitkonto") more than one year, and finally
- (3) special long-term working time accounts restricted to partial retirement ("Altersteilzeit").
- Ad (1) Short-term working time accounts are most frequently applied. The WSI-study identified 73.6% of private and public organisations with Workers' Councils, which manage Flexible Working Time by short-term working time accounts, measuring working time savings and working time debts from "Variation" of standard working time, "Flexitime" and "Overtime". They are tailor-made according to the needs and wants of the respective company in cooperation with the Workers' Councils with varying upper limits for working time savings and working time debts (up to 150 hours, that is about 19 eight-hours-days) and also with varying lengths of time for balancing short-term working time accounts (from 1 month up to 1 year).

It should be mentioned that short-term and other type of working time accounts need a standard procedure for measuring the actual working time of the individual employee. This might happen through external control by mechanical or electronic time recorders; a well-known alternative, however, is trust-based working time ("Vertrauensarbeitszeit").

- Ad (2) Long-term working time accounts are far less frequently applied according to the WSI-study with only 6.5% of all organisations investigated. They differ from the short-term working time accounts in different respects:
- The focus is not so much on varying employment requirement which may be the main argument for short-term working time accounts. Long-term working time accounts are and will be designed to collect all time savings of an employee for long-term purposes such as sabbaticals (extended vacancies), advanced education by degree and non-degree courses at universities, business schools or other training institutes, early retirement etc. is expected, that this service will help to strengthen the retention of managers and high performers to the company.

The sources for long-term working time accounts are also different, including excess time from short-term time accounts at the end of the year, scheduled salary conversion of current pay components to time savings, scheduled transfers of extra pay, e.g. Christmas bonus etc. This procedure is attractive for the employees because of income tax-reason, and also for the companies.

Long-term working time accounts have either no upper limit for time savings or a very high one up to several hundreds of hours, which enables the time account holder to retire one, two or even more years earlier without income reduc-

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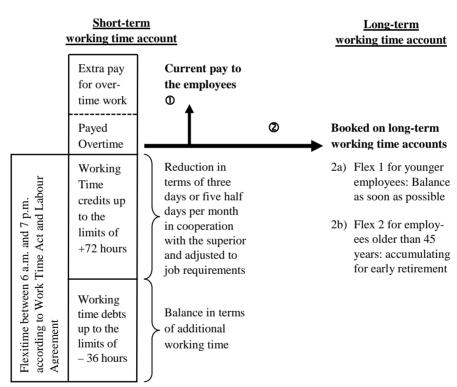
tion or, as an alternative, to take a one year's sabbatical for private reasons and then to continue working.

Ad (3) There are special rules for partial retirement which justify to introduce separate accounts for this special purpose. Partial retirement was already subject of former remarks and will not be analysed further.

# 2. An example of integrated short-term and long-term working time accounts from industry

Both, short-term and long-term working time accounts are subject of company-specific agreement. One of numerous examples is shown below (see Fig. 3).

 $\label{eq:Figure 3} \textbf{A conservative model of integrated time accounts in industry}$ 



The example described is very simple and was selected only for didactic reasons: short-term time accounts are restricted to Flexitime workers who should not exceed the limits of 72 hours plus (= 9 days) and 36 hours minus (= 4.5 days) on their time accounts. Overtime is separately booked and can be transferred to the

long-term time account at the end of the year, whenever this is wanted to by the employee ad admitted by his of her superior and if required by the Workers Council. Overtime transferred to long-term time account will be handled differently, depending on the age group of the employee (see Fig. 3).

Obviously, there is much to change in order to improve Working Time Flexibility and its economic effects for the company (and for the employees) e.g.:

- (1) Open the present short-term time account for other sources of working time credits and working time debts, including "variation" of standard working time in the company, overtime and others;
- (2) Rise the limits of 72 hours plus and 36 hours minus according to forecasts of employment variations;
- (3) Allow more and longer blocks of time to reduce time credits on short-term time accounts, beyond three whole working days or five half days per month, if possible and admitted by the superior;
- (4) Enlarge transfers from short-term to long term time accounts, e.g. by excess far beyond the defined upper limits of short-term time accounts, which otherwise are lost for the employees;
- (5) Consider the case that an employee might have an individual agreement with his or her employer to work permanently one, two or more hours per week more than really paid by the company. The difference between actually achieved working time and paid working time, e.g. 5 hours per week, might be also booked on the long-term time account alone or in combination with other types of direct or indirect salary conversion.

It becomes clear that there is a multitude of different architecture for time accounts which are expected to become still more important in the future.

#### 3. Managing time accounts

Time accounts can only inform on when and how long individual employees were present in their office or in their plant, but not, whether they made best use of their working time or not. Some critics suppose, that time accounts increase the motivation of workers to stay at their workplace longer than necessary, "because each minute counts" either for short term or for long-term time accounts.

At the moment, it is difficult to decide on scientific grounds, if such a trend really exists or not. Nevertheless, some concepts of managing time accounts are already offered, which should avoid that too much working time credits are assembled on the time accounts by a special behaviour of the employees called "Minutenschinden" (meaning to maximize working time on time accounts even if not justified by the employment situation).

One management concept was already described, providing limits for time credits and time debts which are not allowed to be exceeded. A more elaborated

management concept is called "traffic light concept" (Ampelkonto), because three phases of a time account are precisely distinguished through proper definition<sup>17</sup>:

- (1) "green" phase: acceptable amount of time credits (or time debts)
- (2) "yellow" phase: still acceptable amount of time credits (or time debts), but need for action in order to avoid further increase and promote reduction;
- (3) "red" phase: not acceptable amount of time credits (or time debts) to be out of order and should be cut right from the spot by all means

The idea behind is, that employee should be left alone in his or her decision-making on working time as long as time account is within the "green" phase, that in the "yellow" phase his or her superior should be alarmed and is expected to give advice how to return to the "green" phase. In the "red" phase the superior should act and improve the situation with or even without the assistance of the employee.

There are other management concepts not subject of the present report.

### 4. Insolvency Insurance of long-term Time Accounts

Though, required by law and by a growing number of labour agreements in different sectors of the economy, only 26% to 39% of the companies with long-term Time Accounts have already introduced "insolvency insurance". A wide range of Insolvency Insurance models are available:

- "Block account-Model.": company transfers a reasonable amount of cash to a company-owned "block account", which in principle, is not at the disposal of the company;
- "Holding company clause-Model": companies being subsidiaries of a holding company, receive agreement, that the holding will take over the obligation to pay for the existing time accounts in the case of insolvency of one or the other subsidiary;
- "Bank guarantee Model": company receives guarantee, e.g. from its house bank, amounting to the value of the time accounts in question. For this service, the company has to pay a provision;
- "Funds-Model": company invests the value of long-term Time Accounts in external funds which then are available in case of company's insolvency, for paying to the employees.

Which of these and other models will be chosen, is a subject of managerial decision-making. However, it should be noticed, that not each of the models mentioned above, really fulfil the true purpose of Insolvency Insurance.

<sup>&</sup>lt;sup>17</sup> Kutscher (1996).

<sup>&</sup>lt;sup>18</sup> (WSI-study 2004/2005).

#### IV. Final Remarks

The present report on Flexible Working Time in Germany and its Economic Effects is based on the research work of the author and of other institutes with special interests in the subject. The situation in Germany is described in some detail, without any attempt to consider feasibility and benefits of transfers to other countries. All concepts, tools and instruments described have its own country-specific history and should be carefully analyzed whether they fit other cultures and structures. Nevertheless, the present report might include general lessons learned to be easily applied with or without some necessary adjustments.

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