Financing of vocational education and training

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In:

Cedefop (ed)

Vocational education and training – the European research field
Background report – Volume I

Luxembourg: Office for Official Publications of the European Communities, 1998
ISBN 92-828-3613-4

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FINANCING OF VOCATIONAL EDUCATION AND TRAINING

Folkmar KATH (BIBB)

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1. DELINEATION OF THE THEME AND METHODOLOGICAL APPROACH

This report attempts to give a rather generalized answer to the question of who funds what for whom and in what way in the field of initial and continuing vocational training in the Member States of the European Union (EU). State institutions and social groups make considerable use of vocational qualification as a means of actively overcoming unemployment and improving business competitivity. Corresponding activities in the form of a virtually indeterminate number and variety of financial support programmes and measures have been introduced at national, regional, local and sectoral levels for diverse target groups and educational processes, and it is virtually impossible to present even an approximately complete documentation of their concrete design. However, these programmes and measures do offer the opportunity of drawing up a systematic typology of existing financial regulatory mechanisms even if, in many cases, they are primarily an instrumentalization of initial and continuing vocational training as a policy to overcome or prevent existing or imminent social problems[1].

The essay focuses on an exemplary, comparative presentation and analysis of the operational features of standardized funding regulations in Denmark, Germany, France and the United Kingdom. Particular attention is focused on their influence and their impact on the quantitative volume of provision and the level of quality resulting from the training processes and the congruence of the prevailing organizational principles of the vocational training system and the financing system.

At the end of the essay a grid for the accounting of overall funding is presented schematically which, with the inclusion of human capital in the costs and benefits of vocational training, visualizes financing flows from their source to the individual target groups

2. FINANCING OF INITIAL AND CONTINUING TRAINING IN THE CONTEXT OF VOCATIONAL EDUCATION AND TRAINING RESEARCH

2.1 Monetary and institutional-organizational aspects of the funding concept

The financing of initial and continuing vocational training contains a monetary and an institutional-organizational component. The monetary aspect attempts to quantify the amounts allocated for funding in a differentiated manner according to the different funders, i.e. the State, the company, individuals, and according to public and private budgets. Through the enumeration of types of costs and funders a comprehensive picture of the overall financing system is given (Bodenhöfer, 1985).

The institutional-organizational aspect primarily focuses on the procedures - mutually agreed through a balance of interests between those participating in vocational training (State, employers' associations and trade unions) via political opinion-building and decision-making - of resource collection, resource use and resource administration with the aim of achieving the targeted vocational training goals established through consensus.

An examination of the funding system requires a fusion of the two aspects with the following result: financial resources are provided from current or future income or revenue in the form of institutional or individual support via market-driven, rule-bound, contractually stipulated or administratively planned provision of funds and payments based on the equivalence principle, or with distribution effects or relief of cost burden via public budgets which are not always completely transparent (Bodenhöfer, ibid.). From the angle of vocational training research, this necessitates statistical documentation of the amounts allocated by the different

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[1] For a synoptic presentation of such regulations on continuing vocational training see.: Kohler, Alexander: Overview of financing mechanisms for continuing vocational training in Europe; unpublished manuscript for the CEDEFOP Workshop “Funding of vocational training in Europe – Status quo and Challenges for the Future”, Munich, 16-18 June 1997 and: Reporting System on Access, Quality and Volume of Continuing Vocational Training in Europe, FORCE, Formation Continue en Europe/INFPC; Neuwied, Kriftel, Berlin, 1996

funders, systematically listed according to target groups and/or measures for the attainment of partial or total qualification goals, and completed by a description of the organization of the funding bodies in contractually or legally prescribed funding regulations.

2.2 Information gaps and problems of method

Because of incomplete data, surveys of the financing of initial and continuing vocational training already encounter partially unresolvable problems at national level; furthermore, in the case of bilateral or multilateral comparative analysis, considerable gaps are to be found in the data on the institutional functioning of highly diverse financing systems. This is also one of the reasons for incompatible methods of cost coverage and plausible estimates of benefits.

National funding systems for vocational training developed historically. Their characteristic institutional-organizational structures are influenced by socio-economic frame conditions and philosophical-cultural background factors. This also leads to major problems of method because the lack of in-depth knowledge of the diversity of the constituent basic structure distorts the necessary understanding of the proper approach and the posing of relevant questions (Heidemann, 1996). This shortcoming also exists in this contribution where there is no concealing that presentation and assessment occur through "German eyes".

2.3 Scientific discussion of issues related to the funding of vocational training

Scientific preoccupation with issues related to the funding of vocational training is mainly guided by problem situations which are thematically defined in public/political debate. Thus, scientifically substantiated suggestions and well-considered proposals for solutions react to a manifest need or even pressure for political action whose topicality is the decisive reason why theoretical knowledge and empirical findings are not systematically and continuously optimized and updated (Bodenhöfer, 1985).

Another conspicuous feature is that political sensitivity to funding needs is only generated through quantitative supply bottlenecks but not through qualitative deficiencies; vocational education and training research has developed a number of strategies to overcome this without, however, proposing adequate financing instruments for their implementation.

3. DETERMINANTS OF NATIONAL FUNDING SYSTEMS

3.1 The economic rationality of the funding of vocational education and training

In countries in which vocational training activities essentially depend on more or less autonomous decision processes in the companies, a scientific examination of the funding of vocational training is undertaken mostly from the economic angle (an example of this in Germany is the work of the Expert Commission on the Costs and Financing of Vocational Training undertaken in 1974, and a number of subsequent surveys and essays). This approach, based on cost surveys, is applied to analyse investment and business-theory-related implications and the interconnected issues of competition and repercussions on resource allocation.

Empirical surveys of the volume and structure of costs and benefits generated in the education process and estimates of medium and long-term benefits which cannot be quantified in monetary terms, form an important basis for analyses and resultant proposals to overcome existing structural deficits in initial and continuing vocational training. There is absolutely no doubt that it is purposeful and necessary to critically scrutinize the economic rationality and efficiency of funding systems in order to explain them through economic-theoretical arguments and to justify alternative "more effective" forms of financing. But, under no circumstances, can these be explained and legitimized as a result derived only from cost-benefit considerations.

3.2 Financing regulations – the result of political decisions

In all countries of the European Union the State, companies and individuals finance different shares of initial and continuing vocational training by assuming different proportions of direct and indirect costs in mixed systems. That is why the term “co-financing” or “co-investment” is used in this connection. However, nowhere is there an equal match between the benefits obtained by the individual funders and the amounts they have contributed. This means that national financing systems for vocational education and training originate from a fundamental political decision which - by determining the main funder– discloses who, in the opinion of society, is considered to be the main beneficiary of vocational training.

The outcome of this is that the financing complex is more or less firmly integrated in the respective legal framework set up through social consensus, within which the organization of political opinion-building is established and the political field of action of the actors defined through institutional regulations.

3.3 The influence of economic and social developments on the financing of vocational education and training

Vocational training does not have the same status in the different European countries. There is a general tendency to give it less importance than general education paths leading to higher levels of education. This discrimination is offset by the mutual realization that it should play an important role in the solution of economic, social and labour market problems. A broad range of measures providing financial support for vocational qualification processes for youth or for the creation, adaptation, improvement or enhancement of the vocational qualifications of employed or unemployed persons in the form of State programmes or on the basis of agreements between employers and trade unions, is oriented to the goal of reducing current unemployment and combating imminent unemployment and thus making a contribution to the securing or the increase of the performance capacity and competitivity of the economy.

The political reaction to the changed frame conditions in vocational education and training resulting from globalization, technological change and the internationalization of labour markets, is the reform or even a total shift from traditional financing systems. In most cases, however, deficits in the system are compensated or mitigated through ad hoc programmes.

In very few European countries is a clear line drawn between initial and continuing vocational training. In vocational training systems in which systematic vocational qualification is primarily based the free decision of enterprises, financing measures concentrate almost exclusively on the quantitative provision of training for youth. The qualitative requirements are met through normative prescriptions in the training regulations to which trainers are bound because of conventional financing provisions. As quantitative under-provision would imply the danger of long-term social cost burdens through unskilled workers, an attempt is made to remedy the situation through State-financed promotion programmes or a resource collecting system with a more equal distribution of burdens.

Measures for the financing of continuing training concentrate on the promotion of qualifications which can be used on the labour market. If companies do not provide this training themselves, public institutions of the collective-agreement parties take their place by concluding joint agreements.

The financing systems underlying initial and continuing vocational training are not designed to prevent the deficits arising from economic, social and employment-related problem situations. Reality presents a different picture: financing of vocational training is often used as a political weapon against unemployment and as a vehicle to promote economic growth.

4. THE STRUCTURE OF FUNDING SYSTEMS

In funding systems for initial and continuing vocational training the creation, distribution and orientation of financing flows to demanders and providers are regulated through the establishment of organizational mechanisms and use of instruments. In an analysis of the differentiated financing structures emerging from this process, the difference between primary and secondary income distribution can be taken as an analogue. If all financial allocations of the funders are made solely on the basis of the normative order of a financing system, then the ensuing market result is the primary financing structure. As a rule this leaves gaps in the provision of quantitative and qualitative initial and continuing training. Measures taken to re-direct, concentrate or reinforce financing flows to the benefit of target groups, regions or branches have the aim of rectifying the mal-developments which have been caused by market failure. The outcome of this is the secondary financing structure.

These rather theoretical and abstract descriptions will be given a more concrete form in the following by presenting the financing systems and structures in Denmark, Germany, France and the United Kingdom.

4.1 Denmark

4.1.1 Funding of training

In Denmark vocational training is carried out in schools, companies and inter-firm training centres. Their financing is based on a legally prescribed so-called "tripartite" procedure. The choice of the term expresses the fact that the State, employers' organizations and trade unions have reached a mutual agreement through which funding of in-company training is undertaken by distributing the costs between all training and non-training enterprises. In addition to this, public grants are given from the national budget. The compulsory contribution is paid into an Employer-Trainee-Fund (AER) in the form of a fixed amount for each full-time employee, whereby the first and each fiftieth employee and the trainees in a company are not included in the assessment of the amount to be contributed. The AER is jointly administered by the employers and the trade unions. Each year it makes a recommendation on the level of the compulsory contribution which has to be adopted by the Danish Parliament.

The provisions of this regulations were changed several times in the past. At first the companies were only refunded up to 90% of the costs for production-independent phases of instruction in the vocational schools and inter-firm vocational training establishments. Later an additional subsidy, graded according to years of training, was added for each new apprenticeship created in the company. Today this premium is paid for all training contracts concluded since 1992.

Converted into German Marks the compulsory contribution in 1995 amounted to DM 375 per full-time employee per year with the exceptions mentioned above. Together with a State subsidy of some DM 110 million, the total annual volume of the Fund amounts to some DM 400 million a year for about 65,000 trainees. The subsidies for each training contract are fixed at DM 5,000 in the first year of training and DM 4,000 for each further year of the 5-year training period.

Various changes were introduced in the Danish funding system for training in order to react to acute problems arising in the provision of training places for young school-leavers. In the period directly following the introduction of the financing through compulsory contribution regulations, when the only measure was the refund of costs for production-independent periods of instruction, the number of training places offered declined drastically. For this reason, in 1982, a premium was introduced for companies which maintained or increased their number of training places. The basis for the assessment was a comparison with the two previous years. Following a proposal by the government, the resources required were at first provided by the State and the districts. The subsidy amounted to DM 4,500 for in-company training periods up to 1.5 years and DM 7,500 for longer training periods. From 1984 onwards this premium for re-occupied and additional training places was financed through a higher compulsory contribution from the employers. Two years later these subsidies for re-occupied and additional training places were cut by half and then completely abolished for training contracts concluded after 1988. The result was a dramatic 25% drop in the number of training places offered and a correspondingly lower number of training contracts concluded. A subsequent new change of course in financing policy led once again to a slight rise in the number of training places offered by companies without, however, providing enough places for all applicants.

4.1.2 Funding of continuing training

Continuing vocational training in Denmark is also marked by cooperation between the State and the social partners. This applies both to the orientation of training content and corresponding course design and to the financing of vocational qualification measures for employed and unemployed persons.

At present continuing vocational training is regulated by several laws:

- "Open learning", which offers all adults, including self-employed persons, participation in training parallel to the job, depending on professional experience and mainly in the form of part-time courses. Unemployed persons may avail of these offers free of cost without having to forego the usual unemployment benefits. The law does not give them a legal claim to the financing of course fees, but the State at present assumes about 80% of the course fees (Lecher, 1994).
- Educational leave which was newly regulated in 1993 envisages release from work for the employed up to one year for the purpose of continuing training with continued payment of salary at the level of the unemployment benefit.
- The AMU programme enables further qualification of individuals and the removal of qualification bottlenecks in the enterprise. The scheme is implemented in a network of 24 local adult education centres whose management boards have a equal number of members from the social partners.

Up to 1995 funding of all education and training measures was undertaken from a central labour market fund resourced by tax revenue. Since then the fund is being resourced by a tripartite co-financing system in which the social partners participate. In addition to allocations from the national budget, rising contributions from the workers amounting to 5-8% of their gross remuneration and contributions from the employers starting at 0.19% of the total payroll are paid (Heidemann, 1996).

Throughout the duration of the training scheme the participants receive compensation for loss of salary amounting to the level of unemployment benefit which, in some branches, is raised through provisions in the collective agreements. A collective agreement concluded at national level in 1992 also envisages company agreements on vocational continuing training measures financed by the employers (Heidemann, 1996).

4.2 Germany

4.2.1 Funding of training

The basic structure for funding of training in Germany is a simple one: the training companies assume the costs of their qualification measures for their trainees, the State (i.e. the Federal *Länder*, because of the responsibility for education and culture vested in them by the Constitution) bears the costs of accompanying instruction in the part-time vocational schools. In accordance with the Vocational Training Act (BBiG) of 1969, the companies, when concluding a training contract, commit themselves to paying the trainee a training allowance which is generally fixed in the collective agreement, to "training him themselves or appointing a trainer for this specific purpose” and making training material, in particular tools and materials required for vocational training, available free of charge.

Trends in the funding system of vocational training in Germany in the last 25 years reveal increased State intervention to adjust the primary financing structure, whereby the deficiencies of individual-company financing are masked at the same time. The financing system is complemented by numerous measures at Federal, *Länder* and local level and activities undertaken by the social partners in areas untouched by the State. The outcome of this is a secondary financing structure which is considerably different to the primary structure. The start of active participation in financing by the State was quite clearly determined by the political objective of raising the quality of training and securing it in the long term. The point of departure was the improvement of the vocational education and training infrastructure. The “Programme for the promotion of inter-firm vocational training centres” set up in 1973 envisaged subsidies for 80% of investment costs together with financial participation in running costs. This was at first limited to a certain period, but in the meanwhile it has become a permanent support measure undertaken by the State with a slightly different objective and reduced subsidization rates. The target group is small and medium-sized enterprises, particularly in the crafts sector, and the aim is to assist them to meet higher training requirements arising from technological development through the possibility of providing course-like instruction close to practice. This training is given in training centres co-financed by the public sector and run by economic associations such as the Chambers of Crafts, Industry and Agriculture.

As the number of school-leavers and thus the demand for training underwent a sharp rise in the second half of the 1970s, the focus of State support policy had to concentrate more on the problem of the quantitative provision of training. The title of a programme on the implementation of urgent measures to reduce the employment risks of youth, presented jointly by the Federal Government and the *Länder* in 1977 is guided more by labour market considerations than training policy goals. Since then, at times of quantitative problems on the training place market, which are a permanent feature in East Germany after reunification, a number of financial support programmes have been initiated by the Federal Government, the *Länder* and labour administration (funded from employer and worker contributions to unemployment insurance). All these financial support measures are influenced by social, labour market and vocational training aspects and have the mains objectives of

- ensuring sufficient provision of training places in all regions,
- improving training quality primarily in small and medium-sized enterprises in line with rising requirements (e.g. through inter-firm training centres) and
- facilitating access to training for young persons who otherwise have few chances on the market, such as foreign or disadvantaged German youth, the disabled and the so-called “drop-out apprentices” and young women.

Other forms of non-public inter-company funding are collective agreements in the construction sector, a branch with a notoriously low demand for training places, and Chamber regulations in the crafts sector on the funding of inter-firm training. In both cases these are mechanisms for funding through shared contributions. In the construction sector all companies pay a compulsory contribution calculated on the basis of their gross total payroll into a fund administered jointly by the parties to the collective agreement, similar to the Danish model, in order to finance training processes not linked to a workplace (sectoral fund). In the case of the funding arrangement in the crafts sector, this is also a measure with a qualitative goal. On the basis of a resolution adopted by the General Assemblies of the Chambers, consisting of two-thirds company owners and one-third workers, additional compulsory contributions are paid by all the companies in the territory of the Chamber to finance the costs arising from inter-firm training (regional fund). Both financing models have the aim of bringing about a just distribution of costs between training and non-training enterprises. This is a problem which, with some breaks, has governed the vocational training debate for the last 25 years and has always led to severe controversy between employers and worker organizations. This is a conflict which was legally resolved as early as 1980 at the highest judicial level through the Federal Constitutional Court. At that time however, a law which gave the Government the right to impose a compulsory contribution if too few training places were offered by companies in comparison to training place demand, was declared to be unconstitutional because of a formal flaw in the legislative procedure, but not if there was insufficient provision of training places by the companies. Although resolved in legal terms, the political conflict still continues.

4.2.2 Funding of continuing training

In contrast to the highly formalized structure of initial training, the area of continuing vocational training in Germany does not have clearly defined contours. The number of training regulations for qualification leading to the possibility of a final certificate is considerably smaller. In additional to this, the line of separation to general continuing training is sometimes very indeterminate. There is no consistent overall financing system. Most of the investment in human resources is undertaken by the companies as part of their staff recruitment and development policy. In comparison to initial training where the trainees produce yields through their productive work in the in-company training process and thus make a contribution to financing, the time and money put into continuing vocational training measures is much higher.

The legally based financing share is derived from provisions in the Labour Promotion Act (AFG) and the laws on educational leave in the individual Federal *Länder*. In addition to this, there is a mechanism for funding through shared contributions contained in the collective agreement for the scaffolding sector.

The solidarity contributions from employers and workers envisaged for the continuing training prescribed in the Labour Promotion Act (AFG) is, in the meanwhile, only used for the re-training of unemployed persons, which means a steady reduction of former support for vocational updating and upgrading training. This reduction has not been compensated by the recently adopted Law on Promotion of Upgrading Training (AFBG) either in terms of target group orientation or allocated financial volume and individual support. The persons who can benefit from the provisions in this law are restricted through the link to income limits and a high minimum time volume, and the support consists of 35% outright Federal grants and 65% loans. Furthermore, the maximum duration of the upgrading training measure is fixed. There is no legal claim to support but only the possibility of getting financing resources within the framework of the available budget.

4.3 France

4.3.1 Funding of training

In France training is financed by the companies, the regions and the central State. The share from the companies is contributed in the form of a "taxe d'apprentissage" (training tax) amounting to 0.5% of the gross payroll. In general this tax is imposed on all companies in industry, commerce, crafts and agriculture irrespective of their number of employees or their turnover. This means that, in these sectors, all companies are liable to this tax. The only exceptions from this tax are granted to the central State, the regional and local administrations and their public institutions, the professional associations, the liberal professions and education/training societies. Furthermore, undertakings in the sectors of crafts, industry and commerce are exempted if they employ one or more apprentices and the basis for assessment of the training tax is not more than six times the legal annual minimum wage.

Certain exempting payments may be deducted from the tax due. These are payments made for the mandatory 20% of the contribution which is intended for training alone, that is 0.1% of the training tax. A part of the remuneration paid to trainees (11% of the legal minimum wage per trainee and month) is credited to this. Tax exemptions are also granted for financial support given directly by the companies to the public training centres.

The following payments may be deducted from the remaining tax due according to a special key for different economic branches:

- payments to the training centers, if they exceed the mandatory rate to be paid for training,
- half of the remuneration paid to trainees, including the legally fixed social charges for periods of absence in the training centres,
- the salaries of the persons responsible for practical training in the companies up to a ceiling of one salary for ten trainees,
- payments to public educational establishments or private schools which give initial training,
- the costs of practical training periods in the field of vocational training.

Every company must submit a declaration by April each year to the responsible tax office on the amount of the training tax and the expenditure deducted from this tax. There is an equalization fund for crafts firms and companies with less than 10 workers. As a rule these enterprises have no means of deducting payments from the training tax as their income is too low; they cannot deduct the remuneration they pay their trainees during their period of absence in a public training centre. This fund is administered by an association which has been set up by the assemblies of the Chambers of Commerce and Industry, the Crafts Chambers and the Chambers of Agriculture.

The Fund is also resourced by a part of the training tax paid by tax-liable companies. The amount paid into the Fund may not exceed half the mandatory amount for training. The rate of contribution amounts to 9% of the training tax. With these resources the Fund can pay a fixed compensatory amount to crafts firms or enterprises with 10 or less workers to cover remuneration to trainees during the time they spend in a public training centre.

4.3.2 Funding of continuing training

For the funding of continuing vocational training too, the French State has legal means of obliging companies to participate. If they cannot provide any or only insufficient evidence of in-house continuing training, they have to pay a tax consisting of 1.5% of their gross total payroll or the difference between their own expenditure and the assessment amount. The evidence has to be provided in the form of a company training plan. In detail this means that enterprises in small industry and commerce with more than 10 employees have to allocate 0.9% of their gross total payroll for measures in the area of in-company training, 0.2% for individual educational leave and 0.4% for the integration of new entrants to employment. An overall quota of 0.15% applies for small enterprises with less than 10 workers. These legal obligations are mostly fulfilled via Funds set up through the collective agreements. These stipulations apply in general for educational leave, they apply to a great extent for measures integrating new entrants to employment, and only apply in some economic sectors for continuing training within the framework of the company training plan. These Funds are organized at regional or sectoral level; the resources collected in them are used for the funding of educational measures. In this area the parties to the collective agreement are not strictly bound to a legal procedure.

Even when the Funds are set up on the basis of collective agreements, this does not always mean that they are administered jointly by the parties. In the large metalworking, chemical and banking sectors there have, up to now, only been Funds which are administered by the employers alone. They organize the collection and use of the resources, their structure is regional, supra-sectoral and sectoral. They are all united under the umbrella of the *Organisme Paritaire Collecteur Agrée* (OPCA).

The legal quota gives a clear priority to continuing training measures contained in the company training plan with the use of internal or external continuing training schemes and thus clearly stimulates the own interest of the companies in bringing about a better qualification of their employees. The complement to the measures organized on the basis of the company training plan is individual educational leave, which as a rule is financed by the Funds established at regional level, in particular for workers with low qualifications who may apply for this leave. In the case of updating training, the participants get 80% of their wages. Wage subsidies of 90% are paid for re-training courses leading to a certificate of qualification. The rate at which the Fund finances the costs of the training schemes is not uniform, but amounts on an average to about 95% of the total costs.

In addition to the funding provided by companies, the State also participates in the costs of training for young unemployed and other disadvantaged persons by giving subsidies amounting to about DM 6 billion.

Since 1988 companies are given tax relief when their training expenditure exceeds the minimum quota fixed by law. In this case, a tax voucher amounting to 25% is given for additional expenditure up to an amount of DM 350.000 above the compulsory amount fixed by law. The voucher is raised to 40% of additional expenditure if training measures for unskilled or low-skilled persons and employees over 45 years of age are financed by companies with less than 50 workers (Lecher, 1994).

4.4 United Kingdom

In the United Kingdom non-school vocational qualification processes for which there is no binding regulatory framework, are mostly funded by employers. The share of public and individual contributions is relatively low. Content-wise there is no differentiation between initial and continuing vocational training. Training is given, if at all, for age-groups of 16 to 17 year-old school-leavers and 18 to 59 year-old workers.

Systematic financing is available only for certificates which can be acquired on the basis of the qualification standards "*National Vocational Qualification* (NVQ)" and "*Modern Apprenticeship*" recommended by the government.

The government provides a considerable volume of funds for training measures which lead to these certificates. They are administered by a network of 82 semi-public "Training and Enterprise Councils (TECs)". To this end the Employment Department of the British Ministry of Labour concludes contracts on the administration and distribution of these funds which vary annually between UKL 15 and 50 million depending on the TEC. The TECs sign contracts with private training providers which include companies, so that certificates for a specific level of qualification can be acquired through training schemes in the support programme "*Youth Credit* (YC)", formerly "*Youth Training* (YT)" for 16 and 17 year-old school-leavers, and "*Training For Work* (TFW)" for 18 to 59 year-old persons who have been unemployed for more than 6 months. The objective of YC is to enable young persons to acquire vocational qualifications at least at NVQ Level II, while the aim of TFW is the reintegration of the long-term unemployed in the employment system through enhanced qualifications. In the YC scheme every school-leaver is given a voucher which he can present to any accredited training provider of his choice.

In 1993/94 the TECs received public funds amounting to UKL 2.4 billion. 80% of this, i.e. UKL 1.8 billion were spent on YC or TFW schemes. The remaining funds are available for two other support programmes (Education Initials and Business and Enterprise Support) and for administrative costs. The different types of support schemes are strictly separated in the budget. Thus, transfer of funds between the four training schemes is only permitted up to a level of $\pm$ 5% of the individual budget items. Transfers above and beyond this require the consent of the government (Felstead, 1994).

The TEC management boards have an average of 15 directors. At least two-thirds of them must be top managers in large local undertakings. The other directors have to be leading representatives of economic or education sectors or come from trade unions, welfare associations or the public sector. Because of this, large industry is over-represented in the boards where the production and services sectors predominate (Felstead, 1994).

5. REGULATORY AND FUNDING PROCEDURES – CONVERGENCE AND DIVERGENCE

The convergent and divergent features emerging from the description of individual national financing systems can be broken down into different categories for the purpose of a comparative analysis. However, given the problems of method and data described above, this method is not to be recommended because the risk of misconceptions and mal-interpretations cannot be excluded.

5.1 The State as regulator and funder

An approach limited to the role of the State as funder and regulator of financing in the four systems presented as examples, leads to the following result: in Denmark and France the financial participation of companies – in some cases with consideration of their size – in the funding of vocational training is regulated by law irrespective of whether they actively participate in the financing process. In France compulsory participation, which entails payment of a tax in the case of non-compliance, covers the whole range of initial and continuing vocational training. In Denmark the compulsory contribution fixed by law for all companies only covers the field of initial training, and it flows back to the training companies via a Fund to re-finance their costs arising from workplace-unrelated training phases. For continuing vocational training a system of financial participation through employer and employee contributions is being developed.

In Germany and the United Kingdom there are no legal obligations for companies with a passive attitude to training, to participate in the financing of initial and continuing vocational training. Only with a very broad scope of interpretation can the legal provision in Germany on the use of resources collected through employer and worker contributions to the solidarity fund for the financing of the out-of-company training of disadvantaged youth and unemployed persons, be taken as indirect participation in costs.

The assumption of costs by the State in the form of direct and indirect participation in financing occurs with varying intensity in the four national systems described. The most extensive contribution is made by the State in the United Kingdom through its financing of the NVQ and FTW systems, if the considerable level of State expenditure on the expansion and maintenance of educational establishments and schools in Denmark, Germany and France is left out of consideration. In Denmark the volume of State co-funding of in-company initial training amounts to about one-fourth of the financing undertaken collectively through compulsory contributions, whereas in the field of continuing vocational training it (still?) predominates.

In Germany, because of the economic order, there is restraint at Federal level to directly co-finance in-company training activities through open subsidies or grants to undertakings. However, this principle has repeatedly been disregarded, particularly because of the continuing difficulties in the quantitative provision of training in the East German *Länder,* through premiums for each concluded training contract and the financing of Community initiative programmes with the participation of the Federal *Länder* and the EU to implement out-of-company training as a substitute for in-company training. The Federal *Länder* do not practise this restraint implicit in the economic order. They finance a number of target-group-oriented and/or scheme-oriented programmes – also for companies - in order to alleviate acute emergency situations. Permanent financial support measures at the Federal level are confined to inter-firm training as a supplement to in-company training, subsidized upgrading training and low-interest loans, and the promotion of talented persons through premiums for trainees who have completed their training with outstanding success.

In France the State finances training schemes for problem groups on the labour market from tax income and rewards companies which are particularly active in training through tax premiums. The resultant tax losses add up to a not inconsiderable volume of State financing if one recalls that in 1994 the French enterprises spent 3.3% of their total gross payroll on continuing vocational training, i.e. more than double their legal obligation (Jeger, 1997).

5.2 In-company financing via collective agreements

The participation of the social partners in the organization of initial and continuing vocational training is particularly conspicuous in Denmark because of national, regional and collective agreements on the reduction of remaining individual financing amounts. In Germany this is more or less restricted to the construction sector.. In the last few years however, in the course of wage/salary collective agreement negotiations leading to a reduction or a freeze of trainee allowances and a renunciation of other general income claims by the trade unions, the employers have accepted a commitment to increase their initial and continuing vocational training efforts. A result which, as a consequence, means a partial rise in individual financing by foregoing material improvements.

In France the participation of employer and employee organizations is mainly characterized by the distribution of resources from the regional and/or sectoral Funds set up through the collective agreements. In the United Kingdom where, like Germany, funding of vocational training is mainly undertaken by the individual company -without, however, any prescribed, systematically regulated training courses -, the influence of the trade unions is absent after it was deliberately trimmed down in a political process.

5.3 Individual funding

In all four countries the financing contributions made directly by training participants does not reach a figure worth mentioning. If a person participates in training schemes which are not financially supported, the fees to be paid can be compensated in part - only in the United Kingdom and Germany - through tax deductions. This means some co-financing by the State in these cases.

6. OPERATIONAL FEATURES OF FUNDING INSTRUMENTS AND REGULATIONS

6.1 Typology of funding systems

This description of the systems for financing vocational education and training in Denmark, Germany, France and the United Kingdom tried to show that several financing mechanists are combined or applied side by side in these systems. If they are summarized according to the dominant aspects underlying the order of the system, three system-determinant characteristics may be identified (Sellin, 1995):

- The liberal system in the United Kingdom where the companies essentially have the liberty of establishing the quantity and quality of initial and continuing vocational training themselves and where the State only prescribes levels of graduated qualification standards without, however, regulating the paths to be followed for certification.
- The neo-cooperative model, e.g. in Denmark, where employers' associations and trade unions actively steer the process of financial organization and where the State confines itself to putting a legal stamp on group consensus.
- The interventionist mode where the State, as leading actor, assumes the role of designing the system in collaboration with the social partners. This example is to be found in France.

It may be noted that the German financing system has not been classified in any category. In their contribution to this report Koch/Reuling have, very rightly, identified the German dual training system “as the case of a corporatist company-based training system”. The reason why Sellin does not classify the German financing system in any given order underlines the fact that the organizational principle of the overall vocational education and training system is not unconditionally reflected in the financing mechanisms. Indeed, the German vocational training system is an example of a system where a training system directed by group consensus in terms of content and final certification, tends to follow liberal principles in its financing arrangements.

Corporatist element – as seen - are not foreign to the German financing system. Apart from the collective agreements mentioned above, they also include Chamber regulations on compulsory contributions to share the costs of inter-firm training, a provision which Administrative Courts, in several rulings, have stated is in conformity with the system. Several complaints lodged by companies against this form of financing led to these decisions.

6.2 Inter-firm versus single-company funding

6.2.1 Transfer of models to Germany?

Triggered by the growing deficits in the provision of company training places as the result of economic recession together with the demographically generated rise in training place demand, the discussion on a reform of the financing system for training which has repeatedly taken place from the beginning of the 1970s, has erupted once again between trade unions and employers. In the opinion of the trade unions, single-company financing of training must be replaced by inter-firm financing which, as in Denmark and France, will compel companies which do not train or train too little to participate in the costs of training. As the Danish and the French financing models play a considerable role in this discussion, a brief examination of the possibility of transferring financing elements from both systems to Germany will follow.

6.2.2 From Denmark?

The Danish vocational training system is organized on a dual basis like the German system, that is, the training processes take place alternately at different venues, namely, the company, the school and inter-firm vocational training centres. The compulsory contribution to training to be paid by each enterprise is a fixed sum set up without any differentiation. The subsidy flowing back from the Fund is the same for every concluded training contract, it is reduced after the first year of training and then remains constant up to the end of the training period. This type of contribution means a more of a disadvantage for employment-intensive companies vis-à-vis capital-intensive companies than a contribution based on a percentage of the gross total payroll of the company, because the latter differentiates according to the wage and salary structure of the undertaking. The reduced level of subsidy after the first year of training is, at most, weak evidence of a cost-oriented provision of funds. It takes marginal account of the fact that the trainees generate earnings during the in-company part of training, but takes no account of the level of remuneration for trainees or the input-return ratio which fluctuates from occupation to occupation.

6.2.3 From France?

The French training tax is the manifestation of State-dominated steering of the training system. This tax, which has the aim of stimulating company commitment to "*formation d’alternance*" (alternance training), can be avoided by crediting company training activities. This regulation has been taken on board by the advocates of compulsory company contributions in three bills presented to the German Parliament for discussion and adoption.

The opponents of compulsory contributions, on the other hand, reply that this solution would have a negative effect on the training behaviour of companies. Enterprises could – they argue – use the possibility of buying release from this levy or reduce their training efforts if they already lie above the mandatory level stipulated for the tax. This criticism is unjustified, as empirically substantiated findings on the continuing training tax in France show. The contradiction between speculation and reality unveiled here is a striking illustration of the political dimension of the German financing debate in which even the advocates of a compulsory contribution regulation are reluctant to include objective facts in their arguments.

6.2.4 Political and systemic obstacles

In the course of a recently concluded research project conducted by the Federal Institute for Vocational Training, a survey of large firms in Germany showed that training-related cost considerations only affect company decision to a limited extent. For German undertakings training is the most important instrument in their staff recruitment policy. The decisive factor is the forecasts of future employment opportunities in the company concerned. An assessment of actual patterns of behaviour does not however permit the conclusion that the arguments of the protagonists and the antagonists result in mutual neutralization. Despite this, it is striking that Danish employers are ready to accept regulations which their German colleagues are prepared to reject with all consequences.

Another important factor for consideration is that the provision of training places in Denmark shows an annual deficit - measured against demand - of up to 15%. The success of a transfer of financing mechanisms from other countries depends primarily on the status attached to vocational training. Furthermore, in Denmark and even more in France, the company training ratio (trainee/worker ratio) is relatively low compared to Germany (6% to 2.5%). The stimulating effect of a financing system organized on a collective, inter-firm basis should, in the case of low company training output, be assessed positively, even though this thesis cannot be verified through French experience. In any case, with regard to Germany, some scepticism is justified - apart from the political resistance - because here a comprehensive training system already covers all areas of employment and the majority of training places are offered here without financial incentives because of traditional patterns of behaviour or because of the expected benefits from training, and thus there is only limited scope for other mobilization opportunities.

6.3 Incentives to improve the quality and quantity of vocational education and training

6.3.1 Tax incentives

A conspicuous feature emerging from a study of the financing structures of selected European countries is that, with the exception of the above-mentioned tax voucher for companies which are over-proportionately active in the field of training, fiscal policy measures to benefit vocational education and training are not used by the State as an incentive to improve, secure and raise the quality and quantity of training. At least, references to such incentives are not to be found in the available literature on financing.

This is no reason to abstain from an abstract examination of possible measures in this policy field, because the EU Commission addresses such activities under the heading "Treat capital investment and investment in training on an equal basis" in the fifth general objective in its White Paper on education and training "Teaching and Learning – Towards the Learning Society" (European Commission, 1995). The aim of this postulate is to take account of the fact that company expenditure on training is equivalent to investment in human capital and should be treated in the same way as investment in capital goods. This proposal should be welcomed unconditionally in the interest of a political upgrading of vocational training.. However, under German tax laws, its implementation would have a counter-productive effect.

In Germany the costs of vocational training incurred by the enterprise can already be deducted from profits. This proposal would mean that the present one-time write-off of investment in human capital would be replaced by a distribution over several years pro rata temporis which would mean a deterioration of the balance sheet figures and a lower profit quota in the profit and loss account of the company.

From the German angle, the most effective, just and transparent form of all possible tax concessions is the tax voucher given to companies in France which spend an over-proportionate amount on initial and continuing vocational training. The same monetary effect can be achieved with another instrument which has a different fiscal structure, namely, the deduction of a fixed sum from the tax liability (e.g. for making additional training places available). In the context of German fiscal law, the following relief measures for company expenditure on vocational training are also conceivable in principle:

- Special or immediate write-off of depreciable goods in the company assets which are used first and foremost for vocational training.
- One-time reserves for the net costs of vocational training at the point in time when the training contracts are concluded and dissolution of the reserves when the training is finished.
- Reserve or allowance systems which are linked to the number of training places offered.

However, the following problems arise when these instruments are used:

- The immediate relief effect depends on the profit situation and the legal form of the company (both determine the taxation rate).
- All the measures mentioned above, with the exception of the tax voucher or deduction from the tax liability, only bring about a deferment of tax payments, the actual relief only takes the form of lower interest burdens.
- Large companies are favoured by a progressive tax rate which also means progressive relief, and are thus favoured in comparison to small and medium-sized enterprises.

Tax concessions for company and individual financing of training raise the State's share in the overall training budget and thus lead to a, at least short-term, reduction of tax revenue. However, in the long term there is a chance of compensation through higher tax revenue later when higher-qualified activities lead to higher salaries in the employment system.

If the financing structure of a country is not to be fundamentally modified, tax relief measures with an incentive function to encourage more initial and continuing vocational training should remain restricted. The French practice of giving a tax voucher can be taken as an exemplary model here.

6.3.2 Training vouchers

In Germany the problems of financing are always viewed unilaterally in terms of training provision even though, a few years ago, the German training place market was affected by a rather long period of low demand. In order to overcome this a whole range of measures and instruments were categorized, but not financing. However, financing is a steering element which, if necessary, can stimulate both supply and demand. One incentive on the demand side is a training voucher as a guarantee that training costs for youth and adults will be assumed by public or private institutions. In the case of supply deficits however, their effect is similar to that of fully financed support programmes. The level of demand could be maintained if the vouchers only implied a guarantee to assume a part of the costs and the demanders of training would be prepared to pay the remaining costs themselves. Given the short resources for support, it would even be possible to raise the number of persons assisted. However, the risk of a declining interest in training would continue to exist latently and the danger of future gaps in qualification would grow. This financial solution would imply a trend towards privatization of initial and continuing vocational training which would, first and foremost, hit persons disadvantaged on the market with all the negative consequences. The switch from the YT to the YC in the United Kingdom was undertaken with the aim of strengthening the position of youth as demanders and thus possibly re-orienting the programmes administered by the TECs. However, the chances of success must be assessed with some scepticism as long as the contractual bases between the Government and the TECs are not revised (Felstead, 1994).

6.4 Evaluation approaches

In times of crisis-laden economic, labour-market and socio-political developments, the pressure of high expectations weighs heavily on vocational education and training. Everywhere it is virtually considered to be a general panacea to remedy a vast range of social problems. Special attention is directed to the financing system. It is expected to bring a provision of training places with qualitative and quantitative choices. In addition, it is expected to provide access to good vocational qualifications which can be put to effective use on the labour market, and finally it is expected to reduce distortion of competition between undertakings of different sizes and between sectors and regions (Sellin, 1995).

At present all these goals cannot be considered as fulfilled, either individually or collectively. In this context the question arises whether this situation is mainly due to the use of inadequate financing instruments, or whether it is not the manifestation of an inherent conceptual or organizational weakness of the entire vocational qualification system; because, before taking a decision on how to fund measures it is necessary to answer the question of what should be financed to what extent and from which resources.

Starting from the vocational education policy goal of bringing about a provision of training places with qualitative and quantitative choices, the first step in an evaluation - restricted to the quantitative effect - of individual financing procedures would be to establish to what extent they mobilize a financing volume which can meet demand. A comparison with alternative mechanisms in other countries is to be rejected because of different constituent foundations. An effective comparison can only take place when modifications in financing occur in the national context. But the fact that reliable findings on higher or lower levels of efficiency cannot be obtained even in this case, will be illustrated through two examples from Germany.

6.4.1 Germany

From 1976 – 1980 there was a legal regulation on compulsory contributions from companies which enabled the Government to impose a levy in the case of a quantitative shortfall of training place supply. Despite the fact that this situation did arise, the regulation was not enforced. The continuous rise in company training place provision during this period came to a stop after the law was declared to be unconstitutional. Up top now, there has been no scientific research in Germany which tries to establish a causal connection between this threat of a compulsory contribution and the growth in company training place provision. However, the then Government and the political parties it was composed of repeatedly stated that the effect of this regulation was “fleet in being” or equivalent to that of the “sword of Damocles”.

Since the mid-1970s the construction sector has a regulation on compulsory contributions from companies, stipulated in the collective agreements, which in periods of high training place demand led to a large number of training contracts being concluded; however, during the decline in demand in the mid-1980s, this figure dropped by 40%.

Evaluation attempts to determine the ratio between the costs and the quality of vocational training are much more complicated. In 1974 an Expert Commission set up by the Federal German Parliament developed a method to measure the input and output quality of the German training system with the aid of indices. The input quality factors they defined were organization, technology, intensity, staff and training method. Output qualification was subdivided into 4 competence criteria to be acquired by the end of training: formal, occupational, work-environmental and social competence. The question whether financing mechanisms can be successfully evaluated with the use of this method approach has not been investigated up to now.

6.4.2 United Kingdom

In the United Kingdom the financial administration of the TECs has been critically examined (Felstead, 1994). The allocation of public funds is undertaken on the basis of a point system differentiated according to seven criteria. In the YC the costs of the different NVQ levels include the number of NVQs acquired per 100 course-completing persons and the number of young persons who wait 8 weeks or longer for a YC place. In the case of TFW the costs are also taken and the number of NVQs acquired per 100 course-completing persons plus the number of successful transitions to employment or other full-time training schemes, also per 100 leavers. The survey reached the conclusion that this evaluation system prevents financial incentives to support cost-intensive and high-quality training measures and instead only promotes the cheapest, the easiest and fastest training courses. This means that the conditions on financing laid down by the Government for allocation of funds with the aim of obtaining better and more efficient returns on training, practically achieve the opposite.

6.4.3 France

In France a survey conducted by the National Statistical Office (INSEE) showed that 25% of interviewed workers participated in continuing training schemes from 1989 to 1993, whereas from 1973 to 1977, i.e. shortly after the introduction of the mandatory minimum obligation to finance continuing training, the figure was only 11% (Goux/Maurin, 1997). The same survey reveals that the later income of persons participating in continuing training schemes was 2.5 % higher.

7. FINANCING AND HUMAN RESOURCE ACCOUNTING

The financing of the costs of initial and continuing vocational training should be viewed as an investment with anticipated returns. Despite this, vocational qualification is far from being conceived as an integral part of a consistent investment concept. This is mainly due to the three following reasons:

- In Germany at least, human resources are intangible goods and cannot be entered in trade and tax balance sheets.
- It is difficult to assess and quantify education as an investment input.
- Training measures face the dilemma of an asymmetrical situation: Expenditure and costs arise in the short term; but income, output and returns, are only obtained in the long term. There can be no direct allocation of input to the success of the company.

The basic idea of accounting human capital which is also discussed in the White Paper of the European Commission, is that vocational training gives the individual a portfolio of knowledge and skills which is used up gradually through his work. In principle, this idea is not very different to the accounting of material resources. In the balance sheet the available assets at the beginning of the year are entered at their replacement value. From this, the depreciable assets are deducted and current investment is added. At the end of the year one obtains the final level of assets which again is the starting level for the next year.

Vocational training measures can also be assessed at their replacement cost. The problem here is how to handle the depreciation instrument. In contrast to machines and buildings, acquired knowledge potential is not "worn out" through use. The corresponding process in the field of education and training is the gradual change in skill requirements which are transformed through the purchase of new machines, the use of new materials, the development and introduction of new products and new forms of work organization. The outcome is a creeping loss of competence, i.e. the necessity of depreciating human capital arises from the outdating of knowledge and continuing training is the instrument used to remedy this process.. The financing of continuing training costs is thus analogous to re-investment to offset depreciation in the capital goods sector.

For human resource accounting it is important to have knowledge of the financing network of funders with all their financial outflows. The following diagramme presents a financial account of initial and continuing vocational training.

In Germany the Federal Statistical Office collects data on all private and public training expenditure (for the time being without the expenditure on in-company continuing training).

The point of departure is the OECD statistics in "Education at a Glance". The figures, following the table below, will also include an account of inflows and outflows differentiated according to funding and receiving sectors.

This is an important step towards a national accounting of human capital based on costs or expenditure.

Table: **Outline of a financial account of investment in vocational education and training**

Recipient **Funders** (Type of cost)	Dual system		Vocat. school[3]	College /Univ.	Continuing training funders			Chambers (Education administr.)	Private persons (subsistence, training allowance, continued payment of wage/salary)	Total
	Part-time vocat. school	Venue firm/ inter-firm			Private and public funders	Churches, associations and trade unions	Firms			
State • Expenditure on infrastructure - Personnel costs - Material costs - Material investm. • Trainee allowances • Continued payment of wages and salaries • Other expenditure (e.g. BAFöG, research promotion)										
Federal Labour Office • Institutional support • Subsistence • Other expenditure										
Companies[1] • Expenditure on infrastructure - Personnel costs - Material costs - Material investment • Trainee allowances[2] • Research promotion • Other (Chambers)										
Private households • Subsistence • Material costs										
Total										

Grey areas = with financing flows; white areas = without financing flows

[1] Including churches, associations, trade unions (organizations without gainful activities)

[2] Including continued payment of wages and salaries

[3] Including technical schools

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