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Contents

List of abbreviations

- BB Brandenburg
- BE Berlin
- BW Baden-Württemberg
- BY Bayern
- DG Directorate General
- EEN Expert Evaluation Network
- ERDF European Regional Development Fund
- FEI Financial Engineering Instrument
- HB Bremen
- HE Hessen
- HH Hamburg
- MV Mecklenburg-Vorpommern
- NI Niedersachsen
- NW Nordrhein-Westfalen
- OP Operational Programme
- R&D Research and Development
- RP Rheinland-Pfalz
- SH Schleswig-Holstein
- SL Saarland
- SME Small and Medium-sized enterprise
- SN Sachsen
- ST Sachsen-Anhalt
- TH Thüringen

Executive summary

The use of Financial Engineering Instruments (FEIs) is common among German ERDF programmes. Understanding FEIs in a broad sense, including all kinds of financial support other than grants and subsidies, 16 out of 18 German ERDF programmes use FEIs. They are organised in different ways. On the one hand, incentive schemes offering loan can be paid directly from the OP, on the other hand a fund can be implemented. Convergence regions use predominantly loan and credit instruments, whilst in Competitiveness regions equity funds are more important. There are hardly any loan guarantee funds and very few experiments with funds for urban development and infrastructure.

The main arguments for using FEIs are general difficulties of enterprises - mainly SMEs - in accessing capital, the need to reduce the risk of investing and inventing, and a general lack of equity capital. If official documents refer to market failure, they mention the standardised risk assessment procedures of the banks and the weakness of the German market for equity capital. There is hardly any explicit deliberation about the use of loans or equity as opposed to grants. The revolving nature of FEIs is seen as a major benefit.

The main difference in relation to private funds is considered to be that publicly-supported funds provide an additional incentive to invest (e.g. by taking on a larger share of the risk or by reducing interest rates). The MAs in Germany do not exert any direct influence on the way that FEIs are distributed. Responsibility for overseeing the activities of Fund managers is usually delegated to units in the ministry. Their involvement in the actual funding decisions varies. Compared to grants, selection criteria for loans are more rigorous in terms of the financial performance required of enterprises. For equity funding, selection involves a more formalised risk assessment and a long and intensive negotiation. To assess performance, financial information and information on the enterprises receiving funding are usually combined.

So far, there are only few Evaluations of FEIs. They show a mixed picture. Some FEIs experienced delays in implementation, others not. In some cases, smooth implementation results from a broadening of the target group. There is very little information from the evaluations on the contribution of FEIs to regional policy objectives. Studies indicate that FEIs are of relatively small importance overall, but have favourable effects in particularly in supporting high-tech start-ups.

1. Use of financial engineering instruments

Most German ERDF-OPs make use of FEIs.[1] Six of the 7 Convergence programmes and 10 of the 11 Competitiveness programmes do so. Only the Federal Convergence programme for transport infrastructure and the Bremen Competitiveness programme, one of the smallest, do not.

According to official reports on FEIs under Article 44 of Regulation 1083/2006 (European Commission, DG Regio, D3 2011), there are 14 FEI schemes implemented in six Convergence programmes (see Column (b) and (c) in Table 1). The ERDF allocation to these is EUR 577.15 million, 5.1% of the overall ERDF budget. 18 more FEIs are implemented in 10 Competitiveness programmes with an ERDF-allocation of EUR 263.9 million (5.6% of the ERDF total).

Table 1: FEIs in German ERDF programmes – overview (EUR million)

	No Programmes using FEI (a)	Reported as FEI according to Art. 44 No. of single FEI instruments (b)	Reported as FEI according to Art. 44 Financial allocation ERDF (c)	Financial allocation (Codes) Financial Allocation ERDF (2) (d)
Convergence	6 out of 7	15	577.15	671.8
Competitiveness	10 out of 11	18	263.90	742.2
Total	16 out of 18	33	841.05	1,413.7

Sources: (b) and (c): (European Commission, GD Regio, D3 2011); (d): Operational Programmes, latest approved version - allocation to the codes 02 "Aid (loan, interest subsidies, guarantees)" and 03 "Venture capital (participation, venture-capital fund)" of Annex II of regulation 1828/2006.
See Annex A for a more detailed overview of the financial allocation.

Under the broad definition used in this report, FEIs are not completely covered by those officially implemented under Art 44. This becomes obvious when looking at the financial allocation under Codes 2 (Aid-loan, interest, subsidies) and 3 (Venture Capital) of Annex II of regulation 1828/2006. The financial allocation under these Codes is significantly larger than the allocation to Funds (see column (d) in Table 1)[2]. The reason for this difference is that besides implementing a fund, incentive schemes using loans can also be run directly under the OPs. These schemes are not covered by the data available on Funds. For the most part, these instruments were already implemented in the previous period. According to the indicative allocation, EUR 671.5 million of the ERDF will be spent on FEIs in Convergence programmes and EUR 742.2 million in Competitiveness programmes. For the latter especially, the allocation is significantly larger than the budget for funds. Hence, the relative share for FEIs is much larger for Competitiveness programmes (15.6%), but more or less the same for Convergence programmes (5.9%).

Use of FEIs is not new in the current period. Some Länder, such as Berlin, Nordrhein-Westfalen and Brandenburg, started using FEIs in the previous period. But they became more widespread in the current period. In the course of the period, 8 programmes have been changed, the ERDF-budget allocated to Codes 02 "aid" and 03 "venture capital" in these programmes being reduced from EUR 814.3 million to EUR 765.3 million.

[1] Financial Engineering Instruments are broadly defined as all means of financial support other than non-refundable grants and subsidies.

2 In the following, the terms "FEIs" refers to the broad definition including both "Funds" and "other incentive schemes".

In official reports on Funds a total of 33 schemes can be identified (see Annex B).[3] The number of Art. 44-FEIs per programme varies between one and four. The FEIs applied in German ERDF-programmes can be grouped as follows:

- Loans: These support investment in enterprises. In some cases, they are explicitly combined with grants or other loan instruments - mainly from the Joint Task[4]. In other cases, micro-credit instruments are used, mainly with a focus on business start-ups. Loans and credits are also focused on innovation and R&D projects in some programmes. In yet other cases there is a focus on selected sectors or, more generally, on innovative or technology-oriented enterprises. 13 Loan Funds are in operation in Germany under Art.44, 9 in Convergence, 5 in Competitiveness regions.
- Equity funding: Different types of equity financing are used, partly as risk and venture capital. In some cases, such financing is targeted on early phase interventions, partly in the form of seed capital. In most cases, the investment is long-term. There are 20 Equity-Funds, 6 in Convergence and 14 in Competitiveness regions.

Loan guarantees are used only in particular cases, and only two Länder have experimented with FEIs for public investment, either for integrated urban development or more generally for investment in public infrastructure.[5]

The use of FEI differs between Competitiveness and Convergence programmes (see Annex D). Convergence programmes allocate more than 69% of their budget for for Funds to loans, interest subsidies and loan guarantees and only some 31% to participation and venture-capital funds. In Competitiveness programmes, the latter account for over 64% of funding and only 35% goes to loans and credits. This financial distribution is reflected in the number of Funds used (see Annex B). Of 13 loan-funds, 9 are implemented in Convergence regions, while of the. 20 equity-funds,, 14 are in Competitiveness regions.

The total amount of individual FEIs (Art.44-type) differs widely. In Convergence programmes, the ERDF allocation varies from EUR 5.0 million to EUR 174.9 million, with an average of EUR 38.5 million. In Competitiveness programmes, the average ERDF contribution is EUR 14.6 million, varying between EUR 0.8 million and EUR 30.0 million. So on average the FEI in Competitiveness regions are smaller than in Convergence regions.

2. Rationale for using financial engineering instruments

The reasons given for the use of FEIs have three different starting points. The first is the financial situation of enterprises, the most general reason for the use of FEIs being a lack of equity capital. This is mentioned in nearly all the programmes using FEIs. Often the specific weakness of SMEs in terms of equity is emphasised which makes it difficult for them to get access to any form of finance. In most cases this argument refers to the equity situation of individual firms. A few programmes emphasise broader aspects, such as general deficiencies in

[3] The available data only covers the funds, so the other incentive schemes can not be presented in the same systematic way.
[4] The *Joint Task* (Gemeinschaftsaufgabe zur Verbesserung der regionalen Wirtschaftsstruktur) is the most important regional policy measure in Germany, co-financed by the Länder and the Federal government.
[5] One of these instruments has not started yet.

the capital stock in the economy rather than analysing the situation of specific (groups of) enterprises.[6]

The second reason refers to the risk associated either with starting a business or investing in one. Reducing the risk through financial support provides an incentive to undertake these activities. Often the argument is used for FEIs supporting innovation, where risk is especially important.[7] In a strict sense, this argument justifies any form of financial support, covering grants as well as FEIs. In a few cases the argument is extended by referring to FEIs providing a more efficient form of support of enterprises. For instance, the OP from Sachsen-Anhalt states that FEIs enables less of the risk to be transferred to public authorities than grants (Ministerium der Finanzen Sachsen-Anhalt 2007:110). The interviews support this view: For FEIs - in this case mainly loans - the return on investment becomes more relevant than in the case of grants. This leads to a more careful assessment of the application by the funding body, on the one hand, and encourages a long-term focus on profitability by the enterprise, on the other.

The third justification for the use of FEIs is - together with the lack of equity capital - the most common. Nearly all programmes using FEIs refer to the general difficulty of accessing capital, most emphasising that this is more so for SMEs than for larger firms. There are three arguments used to support this relatively general statement:

- Several programmes emphasise the restrictive policy of banks in providing loans, with a focus on risk assessment leading to general market caution. Some programmes illustrate the point by demonstrating that general risk indices are higher for the region concerned than for others (Ministerium der Finanzen Sachsen-Anhalt 2007). Other programmes emphasise that projects with higher risk, i.e. innovation or business start-ups, are subject to particular problems (Niedersächsisches Ministerium für Wirtschaft, Arbeit und Verkehr 2007; Ministerium für Wirtschaft, Arbeit und Tourismus Mecklenburg-Vorpommern 2007).
- A few programmes refer to a lack of collateral restricting access to capital (e.g. Land Brandenburg - Ministerium für Wirtschaft 2007; Ministerium für Wirtschaft, Mittelstand und Energie des Landes Nordrhein-Westfalen 2006).
- Some programmes refer to the private equity market in Germany being generally underdeveloped (Land Brandenburg - Ministerium für Wirtschaft 2007; Ministerium für Wissenschaft, Wirtschaft und Verkehr des Landes Schleswig-Holstein 2007).[8]

Most Operational Programmes mention these kinds of reason in a relatively general way. Reference to evidence as regards specific situations is rare. Some aspects discussed in the literature are completely missing in the justifications used for FEIs, such as, for instance (see Heimpold 1998; Prognos 2009; ifo Dresden 2008):

- How far the incentives given by grants and loans can be equivalent. Models show that the rates of subsidy that can be achieved through grants are technically impossible

6 For instance the OPs of ST, NI and HH.
7 Nine of the 16 programmes using FEIs mention this argument.
8 A point raised in the interviews is that there are national differences in the way capital for enterprises is provided. In Germany, long-term credits and loans instead of equity are traditionally important. See Expert evaluation network delivering policy analysis on the performance of Cohesion Policy 2007-2013, Marc Cowling (2012) Task 1, Financial engineering Literature review.

through credits (ifo Dresden 2008). On the other hand, there are costs involved if interest rate subsidies or other financial incentives are used - which means that capital is needed and finally lost anyhow irrespective of the form in which support is provided.

- By implication, incentives that can be provided by loans are smaller than what is possible from grants. If a region switches to loan from grants, it runs the risk of becoming - at least temporarily - less attractive for investors.
- Although the situation on the capital market has changed over time - both for loans and equity (see below) - programmes present hardly any specific evidence at all on the market situation in their region.

The reasons given for the use of FEIs are rather general, but nonetheless pertinent. However not all relevant aspects are covered and sometimes the arguments could be better adapted to the specific situation in the particular region. For example some general arguments such as the problems of smaller enterprises in accessing credit remain valid and are supported by evidence. But the issue of credit rationing, which is the underlying reason for this, is hardly mentioned in the OPs. All in all, the use of ERDF for FEIs is generally based on a general reasoning than on specific evidence.

FEIs are predominantly aimed at enterprises. On the one hand, business start-ups, investment and growth are supported, on the other, innovation and R&D. Other target groups such as local authorities or other areas (such as the environment or urban development) receive only minor support from FEIs. Even if funds are created for purposes of urban development, the target group has been shifted to publicly-owned enterprises (Land Brandenburg - Ministerium für Wirtschaft 2011). Strategically, some of the FEIs are linked to local development, although enterprises remain the target group (Ministerium für Ernährung und Ländlichen Raum Baden-Württemberg 2007).

While enterprises are the target, the main objectives of different types of FEIs vary and the rationale for intervention differs:

- Support of investment: the purpose is to give incentives for enterprises to invest. The time perspective tends to be short-term, in most cases only a few years, and the aim is usually to support specific types of investment. Loans are mainly used for this purpose.
- Support of innovation: the purpose is usually to support particular types of R&D, again mainly in the form of loans or credit and mostly in the later phases of the R&D process involving prototyping or preparing for production.

  Whether investment or innovation is the main aim of public intervention, support tends to be focused on a specific project of the enterprise, which typically last for two or three years and lead to a defined output. The financial contribution is usually comparatively small since such projects tend to represent only a small share of an enterprise's total activities.

- Growth and development of enterprises: in contrast to the short-term perspective of support for an investment project, the focus here is on the development of firms over a number of years (typical five to seven). Support takes the form of an equity stake in the enterprise to add to the capital they have available.

> The case of support for start-ups illustrates the difference between the project and the enterprise perspective. Support of start-ups is aimed at developing new, competitive enterprises, sometimes linked with support for by focusing on selected sectors. Both loans and equity finance can be used, the instruments ranging from micro-credit for short-term support for start-ups to a long-term equity stake, each working differently in the enterprises.

The question of whether FEIs or traditional non-refundable grants should be used is not easy to answer, since the programmes tend not to regard the two as alternatives. Public support has traditionally been provided by grants, so that programmes seem to assume that there is no need to question their continued use. FEIs are used to a varying degree as complementary instruments, but programmes do not discuss which is the best for a given purpose. When loans are used to complement grant schemes, the issue is made explicit. Depending on the design of the single instruments the relation between loan and grant is either fixed for all applicants or can be negotiated for every single case.

OPs and interviews emphasise the revolving nature of FEIs as a major benefit. The expectation is that funding is more sustainable when used for FEIs.[9] The time it takes to set up FEIs is not seen as critical when compared to grants - both are not quick to implement and involve administrative time and effort. There are some concerns, however, that the costs of administration can be excessively high for equity-funds in particular.

3. The effectiveness of financial engineering instruments: selected examples

The Operational Programmes of Brandenburg and Sachsen-Anhalt (both Convergence) and of Berlin and Nordrhein-Westfalen (both Competitiveness) give an insight into the effectiveness of FEIs. The features are set out in Table 2 (and in Annex C in more details).

Table 2: Overview of FEIs in selected programmes

Programme	Loan-/Credit Fund		Equity-Fund	
	No.	Volume (Total) EUR million	No.	Volume (Total) EUR million
Brandenburg	3	80.0	2	50.0
Sachsen-Anhalt	2	247.9	1	85.0
Berlin	2	133.5	3	95.0
Nordrhein-Westfalen	2	80.5		

The preliminary results as of end-2010[10] show some typical patterns of outcome of these types of instrument:

- The loan and credit funds reach a large number of enterprises, typically a few hundred. The Berlin micro-credit programme had already provided 700 loans by the end of 2010. These types of loans and credits are for 3-5 years at most and the average amount is small.

9 We will discuss some criticism of this expectation in the next chapter.
10 We can only use data from the annual report 2010, as no updated information is yet systematically available.

- Equity finance is extended to only a few enterprises, no more than 20 in most cases[11], and is invariably long-term (up to 7 years or so) and the amount tends to be relatively large.

How far the objectives of private and public funds differ depends mainly on whether public funding is provided on market terms or with additional incentives (e.g. at reduced interest rates). In addition, the interviews show that the interests of the participants involved make a difference. It is difficult to generalise, but private equity companies tend to put more emphasis on profits and can be quicker to put pressure on enterprises to realise these. The interviews showed also, that the role of banks might become problematic, e.g. when banks try to shift bad loans on to public programmes.

Managing Authorities (MAs) of German ERDF-programmes do not exert any direct control or influence over the selection of firms which FEIs should support. The MAs are responsible for regional OPs containing a wide range of different measures, each one usually administered by an intermediary body – typically a special unit within the Ministry of Economics. But even this unit is not always involved in day-to-day operations. The administration of the FEI is in most cases undertaken by a public investment bank, a separate offshoot of a larger bank, or by some kind of fund manager. How far the unit in the Ministry is involved in the selection of companies to finance depends on how the relationship with the implementing body is organised. In Berlin, for instance, there is no formal involvement of the Ministry in the selection of micro-credit recipients, while in North-Rhine Westfalen, the Ministry can exercise a veto on loans. The situation varies between Länder and even between programmes. In any case, however, the MA is not directly involved but an intermediary body.

In the selection process the fund managers (often in banks) have an essential role. The selection criteria for recipients of finance can be described only in a relatively general way. They differ between types of instrument.

- For loans and credit, one part of the selection process is similar to grants, in that there is a general assessment of the quality of the investment-or R&D-project. Additional criteria imposed depend on the specific programme (e.g. firms younger than 3 years old or in a particular sector). A specific element of selection is an assessment of the financial conditions of the enterprise. Normally, only limited collateral is required, but this depends on the amount of the loan involved.
- For equity funds, the selection procedure is different. Here often specific procedures (due diligence) are applied. Enterprises need to fulfil a set of minimum criteria to be eligible. The decision to invest or not is then reached through a process of negotiation which often involves other investors. Detailed conditions are defined in each case, including the share of risk each investor takes and the exit strategy for investors.

The performance of funds is assessed in practice from two perspectives. One is that of the unit responsible for the FEI, which monitors the performance of the instrument as such. The other is that of the MA, which monitors the FEI as part of the Operational programme. The two perspectives overlap but are not identical: The MA is interested in the contribution to the

11 Data on the number of participations is problematic because in some cases several consecutive rounds of financing one and the same firm are counted as separate participations. Therefore it might well be that the actual figure of firms profiting from the equity is even smaller.

objectives of the OP, the unit responsible more in the details of recipients and their development. The monitoring by MAs usually consists of the following elements:

- Financial monitoring in relation to the specific requirements of FEIs in ERDF-programmes: the specific rules of Art. 44 require the fund to be spent once during the funding period. Meeting this requirement is seen as one of the most important tasks of MAs, which are concerned with progress in distributing the fund.
- Performance of the Fund: in some cases a few additional financial indicators are used to gain an idea of the FEI's performance. In addition to progress in allocating the fund, the funds flowing back can also be monitored. In case of equity participation, the time span for return tends to be relatively long. To obtain an overview of performance, the return flow (which includes loan repayments plus interest) is compared with the costs of administration and defaults.
- Profile of recipients: MAs collect information on beneficiaries to varying extents. In most cases, indicators like sector classification, year of foundation, turnover and number of employees are used. The performance of enterprises in which there is an equity stake is monitored but the information concerned is hardly used at all by the MAs.

Targets are normally defined in terms of financial indicators (e.g. amount of loans or investment induced) and the number of enterprises funded.

The interviews make clear that monitoring is not expected to give deep insights into the actual outcome of loans or equity participation and those interviewed shared the view that there is a need for a more in-depth evaluation into the effects both at the enterprises and regional level.

4. Main problems in using financial engineering instruments

The information available suggests that the main problems relate to:

- The demand for FEIs - mainly but not only in the case of equities - depends on the economic situation and developments in the private equity market. For instance loan programmes are currently faced with very low interest rates on the market which makes it difficult to offer favourable conditions to provide additional incentives. But also the approach to risk assessment might be adapted to market developments. All these factors can impact on the demand for FEIs. Some Länder report a declining demand during the crisis. From the perspective of MAs this can be seen as risky due to potential delays in implementation which might conflict with the obligation to spend the whole fund once during the programming period.
- In some cases - mainly in respect of micro-credit programmes - the court of auditors has criticised the risk assessment carried out as too generous and accepting too great a loss of capital. There are some hints that the approach to risk assessment as compared with private credit programmes was contributing to the generally high demand for this type of credit, which raises the question as to how much demand there would be if credit were only provided at normal market terms and conditions.
- Overall, equity funds seem to be most problematic in terms of weak demand. It is not yet clear how far this is simply the effect of delayed implementation due to more complex negotiation procedures and the effect of the crisis as opposed to a more general

problem, which would suggest that the analysis of the situation undertaken before launching the funds was inadequate.

- An open question is how far financial sustainability can be achieved. There are some sceptical views that the finance available is reduced by the risk of default risk and management costs. On the other hand, for some funds, positive developments and even growth in their capital are reported.
- One point that has led intensive debate between the Commission and German MAs over the past two years is the fact that large amounts of ERDF support are allocated to revolving instruments but not under the rules of Art.44, which has only come to light during the course of the funding period.

Not all of these problems can be overcome simply by development of the market as some are claiming. Where there are delays in implementing the funds, MAs watch the situation closely and are prepared to shift funding if necessary.[12] Several MAs plan to undertake a more detailed evaluation of the results of FEIs (some first studies are already available, as indicated below). The issue of "non-Art.44-FEIs" has been resolved. After a change in June 2010, the regulations foresee both Funds and "other incentive schemes".

5. Evaluations of financial engineering instruments

There are only two evaluations which have been undertaken which specifically deal with FEIs co-financed by the ERDF (MR Gesellschaft für Regionalberatung 2010; Ramböll Management 2009). The main findings from the two evaluations are:

- Evaluation of NRW/EU.Mikrodarlehen: The fund has supported a large number of business start-ups, many of them by women. Two-thirds of the recipients concerned were unemployed beforehand. The most important sectors are retailing and personal service activities (such as hairdressing). The evaluation concluded that the fund is effective in supporting start-ups, but has had only a limited effect in terms of structural adjustment.
- Evaluation of capital oriented instruments in Sachsen-Anhalt: The instruments were found to provide finance to comparatively competitive enterprises (the larger ones which invested more). There were no general weaknesses apparent in the procedures. The general assessment was that the programmes fit well with OP objectives and should be continued.

In addition to these two specific studies, FEIs have been the subject of evaluation in a number of more comprehensive programme evaluations. The mid-term evaluation in Schleswig-Holstein found that an equity fund which was targeted at innovative enterprises also included firms in traditional sectors (Prognos AG 2011). The study also argued that grants are better suited to providing targeted incentives for investment in specific - mainly more peripheral - parts of the region as they can be differentiated more easily. In Sachsen-Anhalt, the evaluation reported difficulties in the implementation of the seed loan fund (Ramböll Management und Metis 2010). In Niedersachsen, the implementation of an equity fund was delayed (Prognos AG et al. 2010). According to the study, there is a preference for grants among enterprises. The evaluation

12 A number of programme changes are underway, though it is not as yet clear how far they concern FEIs.

presented assessments by a number of experts. The positive aspects of FEIs mentioned were better inter-temporal differentiation of support, increased mobilisation of private capital, a lower administrative burden on recipients, and higher quality of the project supported An equity fund for early phase investment in innovative enterprises in Sachsen was found to show good progress, though the number of jobs created was smaller than expected (PriceWaterhouseCoopers et al. 2011). The mid-term evaluation of the ERDF in Bavaria is reporting 271 new jobs created with EUR 35 million under four different funds. These funds contribute considerably to the OP's strategic objectives. A number of success factors have been identified: flexibility (allowing for quick reaction to changing market conditions), a reliable legal framework (no changes of regulations during one period), simple procedures (Prognos/RWP 2011).

The evidence from ERDF evaluations is very limited, especially as regards the potential contribution of FEIs to the objectives of regional development and innovation. The mid-term evaluation of the ERDF in Thüringen, therefore, cautioned against a too early integration of FEIs into the mainstream of funding policy (GEFRA Gesellschaft für Finanz- und Regionalanalysen und MR Gesellschaft für Regionalberatung 2011:60). The main argument is that subsidies, whatever form they take always involve costs. There is some evidence in addition to the general discussion of loan versus grants in the Ifo-Study (ifo Dresden 2008). Only 1% of German SMEs (with an annual turnover of between EUR 7 million and EUR 500 million) make use of mezzanine capital each year (Bankenverband und KfW Kreditanstalt für Wiederaufbau 2011) and the capital concerned contributes only 1% to their investment[13]. From a macroeconomic perspective, mezzanine finance is of minor importance. On the other hand, there is evidence that venture capital increases the number of high-tech start-ups (KfW Kreditanstalt für Wiederaufbau 2012a).

6. Concluding remarks

From the above, the following points are relevant for the future deployment of the ERDF in Germany[14]:

- As the implementation of a number of FEIs is slow, a major task of MAs in the short-term is to monitor progress carefully and react if necessary by shifting funds.
- Future use of FEIs should be based more on evidence. Two issues are important to judge the need for public support: whether there are particular sections of the financial market where there are serious deficiencies (e.g. early phase venture capital); what the precise purpose of the intervention is and what instrument is best equipped to achieving this.
- Often, it is not clear if the FEIs are meant to react to structural deficits or to cyclical developments. A clearer and explicit formulation of the underlying rationale would be helpful. Generally speaking it will be difficult to justify FEIs on the basis of cyclical arguments as both loan and equity markets are currently working well – after a few problematic years during the crisis (KfW 2012a and b).

13 If the smaller enterprises (< than EUR 7.0 million) are included, the share is only 0.2 %.
14 The selection is necessarily personal.

- It is important to collect more evidence on the effects of FEIs. Hardly anything is known about their effect on regional development. Evidence is fragmented and no general picture is as yet visible.

There are two further fundamental points that need to be better analysed to determine whether public money should be spent on FEIs:

- One concerns differences in traditional national ways of financing enterprises. In Germany, there is a tradition of long-term loan and credit financing in which banks plays an important role. The system of local and regional banks (Sparkassen) which are not predominantly profit-oriented and of mutual savings banks creates specific conditions for financing enterprises and investment. Equity-capital is less important in this system than in other countries.
- The other concerns the need for better understanding of the interests of the different actors involved – between the policy of banks and the public interest, which was mentioned in the interviews. Public business development banks which often manage FEIs also have their own interests. The potential of FEIs for supporting regional development objectives, which as yet is not entirely clear, needs to be verified in this context, which means learning more about the actors involved and how they interact with one other.

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Interviews have been carried out with the unit responsible for the FEI in the Ministry of Economics in Northrhine-Westfalia and with the MA of the ERDF in Berlin. Discussions with different evaluators helped to inform this paper. We are particularly grateful to Dr. Stefan Meyer and Dr. Kathleen Toepel.

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Annex

Annex A: Indicative financial allocation in EUR million

		ERDF Indicative allocation				Financial Engineering Instruments (Art. 44)	
		ERDF (total)	Category 02 Aid (loan, interest subsidies, guarantees)	Category 03 Venture capital (participation, venture-capital fund)	Share of Code 02 + Code 03	ERDF allocation	Share
Conv	BB	1,498.7	83.0	22.5	7.0%	117.5	7.8%
Conv	Bund	1,520.3	-	-	0.0%		0.0%
Conv	MV	1,252.4	20.0	-	1.6%	20.0	1.6%
Conv	NI(1)	589.0	30.0	10.0	6.8%	30.0	5.1%
Conv	SN	3,091.1	77.8	35.5	3.7%	52.2	1.7%
Conv	ST	1,931.8	220.9	63.8	14.7%	248.7	12.9%
Conv	TH	1,477.7	108.0	-	7.3%	108.8	7.4%
Comp	BE	875.6	93.2	53.1	16.7%	72.5	8.3%
Comp	BW	143.4	13.9	1.5	10.7%	0.8	0.6%
Comp	BY	575.9	30.3	25.0	9.6%	55.0	9.5%
Comp	HB	142.0	-	-	0.0%		0.0%
Comp	HE	263.5	21.0	25.0	17.5%	30.0	11.4%
Comp	HH	35.3	4.0	1.3	14.8%	6.0	17.0%
Comp	NI(2)	638.8	60.0	30.0	14.1%	27.0	4.2%
Comp	NW	1,283.4	190.2	151.9	26.6%	40.3	3.1%
Comp	RP	217.6	-	10.0	4.6%	10.0	4.6%
Comp	SH	373.9	24.0	-	6.4%	21.0	5.6%
Comp	SL	197.5	2.0	6.0	4.1%	1.3	0.7%
Conv	Total	11,361.1	539.7	131.8	5.9%	577.2	5.1%

		ERDF Indicative allocation				Financial Engineering Instruments (Art. 44)	
		ERDF (total)	Category 02 Aid (loan, interest subsidies, guarantees)	Category 03 Venture capital (participation, venture-capital fund)	Share of Code 02 + Code 03	ERDF allocation	Share
Comp	Total	4,746.9	438.5	303.7	15.6%	263.9	5.6%
TOTAL		16,108.0	978.2	435.5	8.8%	841.1	5.2%

Sources: "ERDF Indicative allocation": Financial Plan in the Operational Programmes; "Financial Engineering Instruments": GD Regio Overview of Financial Engineering instruments.

Annex B: Overview of FEIs

As FEIs are not easy to identify from documents like OPs and AIRs, the following list

Land	Instrument type	Target group/purpose
		Competitiveness
BW	Equity-Fund	Young technology oriented enterprises
BY	Equity-Fund	Growth of SMEs - geographically focused to Eastern Bavaria
BY	Equity-Fund	Growth of innovative enterprises - geographically focused to Eastern Bavaria
BY	Equity-Fund	Growth of young enterprises
BY	Loan-Fund	Financing innovative investment - geographically focused to Eastern Bavaria
BE	Loan-Fund	Micro-credit and loan to SME, start-ups for investment of different purposes
BE	Equity-Fund	Growth and innovation, equity and mezzanine
BE	Equity-Fund	Technology-oriented start-ups
BE	Equity-Fund	Creative economy
HH	Loan/Equity	Technology-oriented young enterprises
HE	Equity-Fund	Innovative start-ups and innovative enterprises
NI	Equity-Fund	No specific focus
NI	Equity-Fund	Focus on automotive, optic, information and communication, life science, energy
NW	Loan-Fund	Micro-credit for start-ups
NW	Loan-Fund	Subordinary loans
RP	Equity-Fund	Small technology-oriented enterprises
SH	Equity-Fund	Mostly SMEs
SL	Equity-Fund	Multi-national fund
		Convergence
BB	Equity-Fund	SMEs
BB	Loan-Fund	Enterprises, combined with grants from the joint task
BB	Loan-Fund	Urban development - local authorities and public owned enterprises
BB	Equity-Fund	Early phase investment for young and innovative enterprises
BB	Loan-Fund	Subordinated loan for SMEs
MV	Loan-Fund	Enterprises, combined with grants from the joint task
MV	Loan-Fund	Micro-credit for SME
NI	Equity-Fund	No specific focus
SN	Equity-Fund	Technology-oriented start-ups
SN	Loan-Fund	Micro-credit, young enterprises (< 3 years old)
ST	Equity-Fund	Technology-oriented enterprises
ST	Loan-Fund	Start-up and growth
TH	Loan-Fund	SME, investment
TH	Loan-Fund	SME, investment

Annex C: Case Studies - Overview of FEI

Financial information in these tables is not necessarily consistent with the figures in Annex A due to different sources for reporting. Here both OPs and Annual reports have been used.

OP Brandenburg - Convergence

Name of the fund	Type	Total Volume EUR million	ERDF volume EUR million	Target group and main focus	Result
Financial Engineering Instruments (Art. 44)					
BFB Wachstumsfonds Brandenburg	Equity-Fund	30.0	22.5	Follow-up of a similar instrument in the previous period, participation to SME, requires private co-investor	Up to 31 December 2010: EUR 15.0 million investment, investment in 14 enterprises
Low interest loan fund for urban development	Loan-Fund	20.0	15.0	Urban development fund - for local authorities and municipally owned businesses Municipally owned businesses are only in the target group since 2010	Up to 31 December 2010: EUR 0.8 million invested,
Early phase investment fund	Equity-Fund	20.0	15.0	Early phase fund, financing investment in open or silent partnership, no private co-investor required.	Up to 31 December 2010:EUR 5.2 million invested, investment in 6 enterprises in 2010
Brandenburg Kredit Mezzanine	Credit-Fund	20.0	15.0	Subordinated Loan for enterprises	Up to 31 December 2010, no investment:, the fund started only in December 2010
Other FEI (not under Art. 44)					
Subordinated loan fund	Loan-Fund	50.0	50.0	Subordinated loan is offered combined with grants from the Joint Task	Until 31 December 2010: EUR 13.0 million invested 6 loans in 2010, totalling ERU 10.6 million

OP Sachsen-Anhalt - Convergence

Name of the fund	Type	Total Volume	ERDF volume	Target group and main focus	Result
Financial Engineering Instruments (Art. 44)					
Venture Capital Fund	Equity-Fund	85.0	63.75	Risk capital - open and silent partnership, open partnerships for 5 to 7 years, silent partnerships for 10 years	Up to 31 December 2010: EUR 37.2 million By end of 2010 all in all 42 participations, 18 new ones in 2010.
SME-Loan Fund	Loan-Fund	237.9	174.86	Loan Fund for SMEs Loan running up to 10 years Four different types of loans are offered: ○ prefinancing for orders ○ Start-up and SME-loan ○ Mezzanine Loan ○ Innovation loan	Up to 31 December 2010: EUR 193.2 million By end of 2010 all in all 634 loans had been agreed.
SEED-Loan Fund	Loan-Fund	10.0	10.0	Loan Fund for start-ups of graduates, students etc.	Up to 31 December 2010: EUR 1.1 million 4 loans in 2010,

OP Berlin - Competitiveness

Name of the fund	Type	Total Volume	ERDF volume	Target group and main focus	Result
Financial Engineering Instruments (Art. 44)					
KMU-Fund	Loan-Fund	50.0	25.0	SME, either micro-credit or loan for start-ups, investment, etc.	By end of 2010: 25.EUR 16.0 million, 700 loans
Berlin Kapital	Equity-Fund	13.0	6.5	Participation for growth and investment in open or silent equity	By end of 2010: EUR 2.05 million, 9 participations
VC Fonds Technologie	Equity-Fund	52.0	26.0	Technology-oriented start-ups	By end of 2010: EUR 14.1 million 69 participations in both funds
VC Fonds Creative	Equity-Fund	30.0	15.0	Creative industries	By end of 2010: EUR 9.1 million
Other FEI (not under Art. 44)					
Profit-Darlehen	Loan-Fund	83.5	41.7	Loan for innovation in the later phases	-

OP Nordrhein-Westfalen - Competitiveness

Name of the fund	Type	Total Volume	ERDF volume	Target group and main focus	Result
Financial Engineering Instruments (Art. 44)					
NRW/EU.Mikrodarlehen	Loan-Fund	20.5	10.25	Start-up and micro-enterprises	By end of 2010: EUR 8.0 million, 364 loans, 258 of them start-ups
NRW/EU.Investitionskapital	Loan-Fund	60.0	32.0	Subordinated loan for SME	By end of 2010: EUR 48.0 million, 15 new loans in 2010
Other FEI (not under Art. 44)					

Annex D: Art.44-FEI in Germany - Overview

Region	Type	Number of FEIs (Art.44)	ERDF-allocation (EUR million)	Share of ERDF-allocation	Maximum allocation to a single fund (EUR million)	Minimum allocation to a single fund (EUR million)
Convergence	Equity	6	181.8	23%	63.8	15.0
	Loan	9	395.35	473%	174.9	5.0
Convergence Total		15	577.15	69%	174.9	5.0
Competitivenes	Equity	14	168.6	20%	30.0	0.8
	Loan	4	95.3	11%	30.0	10.3
Competitivenes Total		18	263.9	31%	30.0	0.8
Total		33	841.1	100%	174.9	0.8