

**SUMMARY**



**10-year report**

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**1990 - 1999**

1 March 2001

## SUMMARY

### **1. Introduction**

This is a summary of a report prepared in 2000, regarding the activities of the Investment Fund for Central and Eastern Europe (IØ) in the last 10 years.

The report forms part of a number of reports published every five years, which analyse the activities, etc. of the Danish International Investment Funds since their establishment.

This is the second IØ report, covering the period 1990-1999.

The analyses serve different purposes, some of which are mentioned below:

- The reports may be used as a guide to central parts of IØ's activities.
- The purpose of the analyses is to clarify a number of important facts and trends in IØ's work
- The analyses form the basis for the Board of Directors of IØ when it comes to evaluating the degree of goal achievement, and they serve as inspiration for possible improvements and increased efficiency in work procedures and methods.

## 2. IØ's activities

The analysis of trends and results of IØ's activities during the last 10 years is divided into four parts:

1. IØ's operations
2. IØ's projects
3. IØ's financial status
4. The Environmental Investment Facility for Central and Eastern Europe (MIØ)

### 2.1 IØ's operations

IØ was established by the Danish Parliament as a self-governing fund by act of 19 December 1989 and started working 1 January 1990. The purpose of the Fund is to promote investments in Central and Eastern Europe in cooperation with Danish companies.

The objective for Denmark's involvement is to support the reformist countries in their efforts to achieve an increased economic and commercial development and to enhance the possibilities for closer economic cooperation between Denmark and Central and Eastern Europe, resulting in generally improved East/West relations, which will benefit Danish trade and employment.

During the last 10 years, IØ's primary task has been to participate with share capital and loans in commercially viable projects in cooperation with Danish companies and companies in the host country.

To reflect the productivity of IØ's investment operations, the number of active and new projects, respectively, may be compared to the number of employees. Due to the administrative connection between IØ and IFU (the Industrialization Fund for Developing Countries), both funds are included in the analysis. Furthermore, the development since 1968 is analysed.

**Fig. 1** Number of IØ and IFU projects per employee

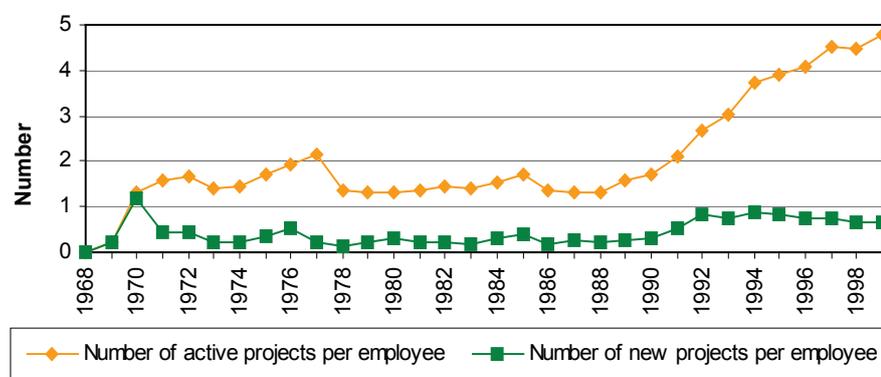


Figure 1 shows that until 1990 the number of active projects per employee was around 1.5. Since then there has been an upward trend, resulting in the number of active projects per employee being just under 5 in 1999. Thus, at the end of the 1990s there had been a trebling compared to the trend of the first 20 years of IFU's existence.

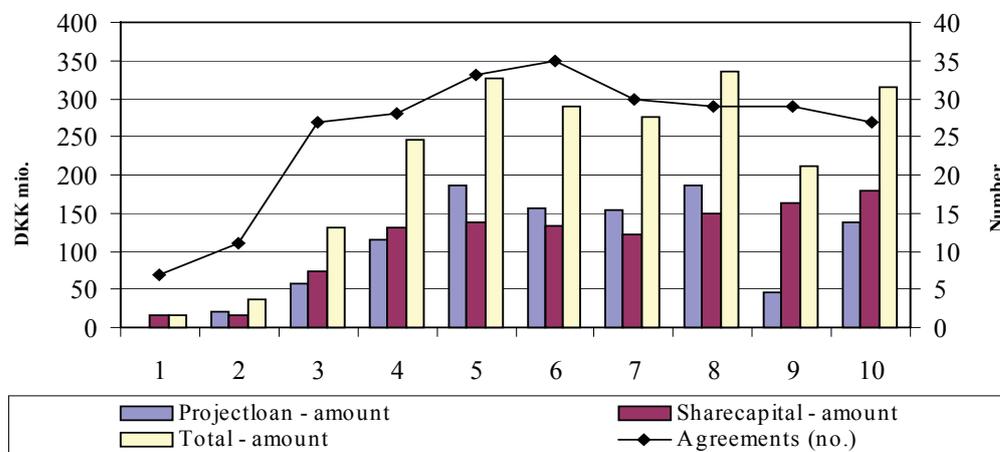
Up to 1990, the number of new projects per employee was around 0.3, however, it has varied a great deal. Since 1990, the number has been fluctuating between 0.5 and 0.8. All in all, the number of new projects per employee was 2-3 times higher in the 1990s compared to the level of the past 20 years.

Important conditions for the positive development in IØ and IFU's productivity were the expansion of the regional offices and large IT investments, which took place during the 1990s.

On IØ's part, a case is defined as a new project the first time an investment agreement regarding a joint venture is signed. It could be a shareholders' agreement, a loan agreement (guarantee agreement).

Fig. 2 shows the number of new projects and the corresponding amount invested in projects.

**Fig. 2** New projects/year



The number of new projects increased until 1995, but since then the trend has been slightly downward. In 1995, 35 new projects were registered, whereas the number for 1999 was 27.

The amount of money spent on projects increased until 1994, when the funds entered into new project agreements worth DKK 325m. In the rest of the period the average amount was around DKK 300m.

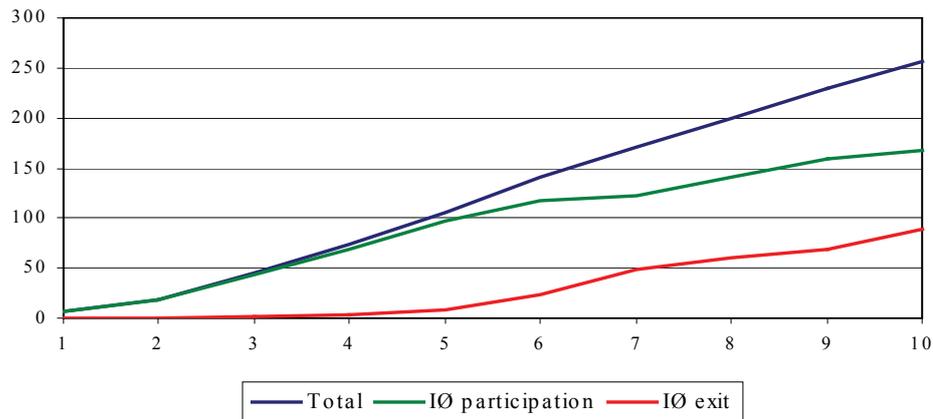
In the period, IØ entered into new project agreements worth a total of DKK 2.2bn divided almost equally between share capital and project loans.

## 2.2 IØ's projects

Fig. 3 below shows the cumulated development in number of IØ projects.

The statement is based on the yearly increase in new projects. In Fig. 3 a distinction is made between projects with (continued) IØ participation and projects, which IØ has exited. Thus, when added up they indicate the total number of projects entered into by IØ.

**Fig. 3** Total number of IØ projects

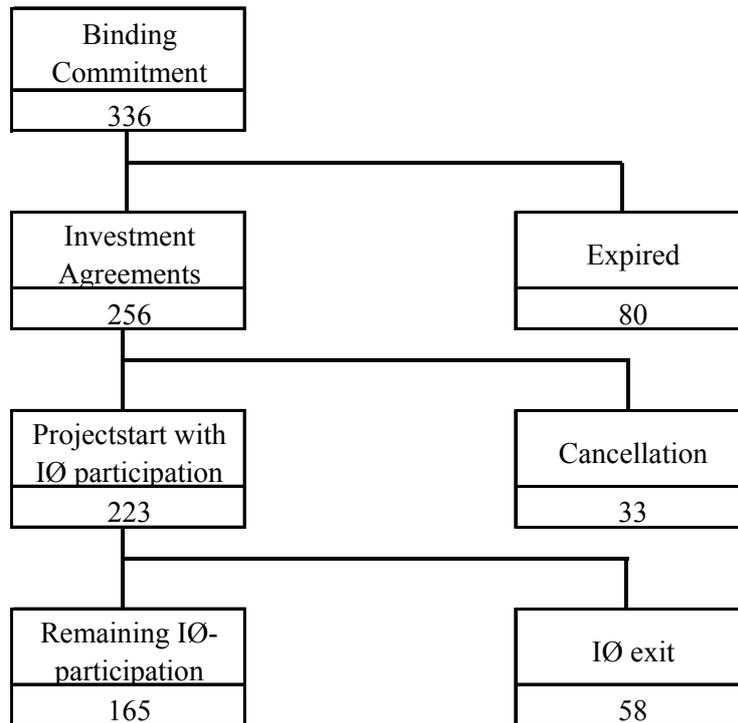


In the period analysed IØ has entered into financial engagements on the establishment of 256 projects. During the same period IØ has exited 88 projects, resulting in a total of 168 active projects at the end of 1999.

The objective of IØ is to sell its shares in a project company, i.e. to exit a project, when it is likely that the project is viable. In some cases, the project company has to be liquidated because of financial problems.

The complexity of the analysis of the individual projects is illustrated in Fig. 4, which shows - by different groupings - the development and the (end) status of all 256 projects as at 31.12.1999.

**Fig. 4** Status on project development (number) as at 31.12. 1999



The figure shows the development of project proposals from binding commitment (336) to investment agreement (256) to project start with IØ participation (223) or cancellation (33). Cancellation means that the projects are given up. In total, IØ has participated in starting 223 projects. 165 of these still have IØ participation, while 58 projects were exited.

The following analyses of closedown of projects, i.e. projects with no activities whatsoever, and IØ's exit from projects only comprise the 223 projects, which were actually started.

Fig. 5 illustrates the closedown risk for these projects compared to their age.

**Fig. 5**                    **Closedown risk for IØ projects in relation to project age**

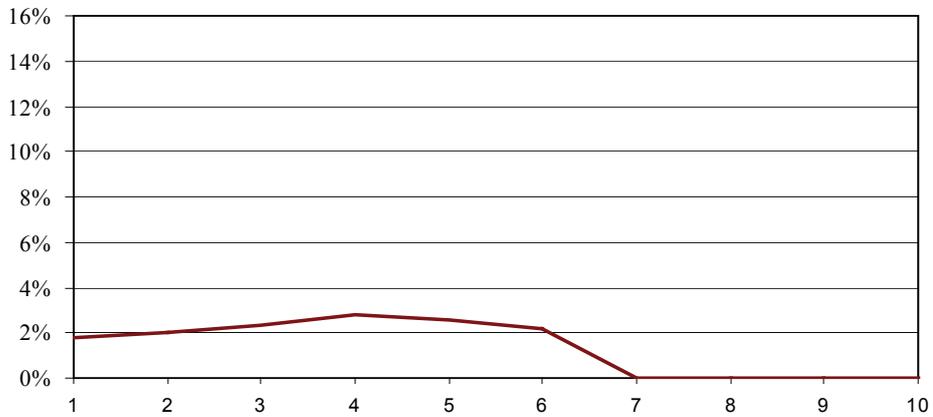
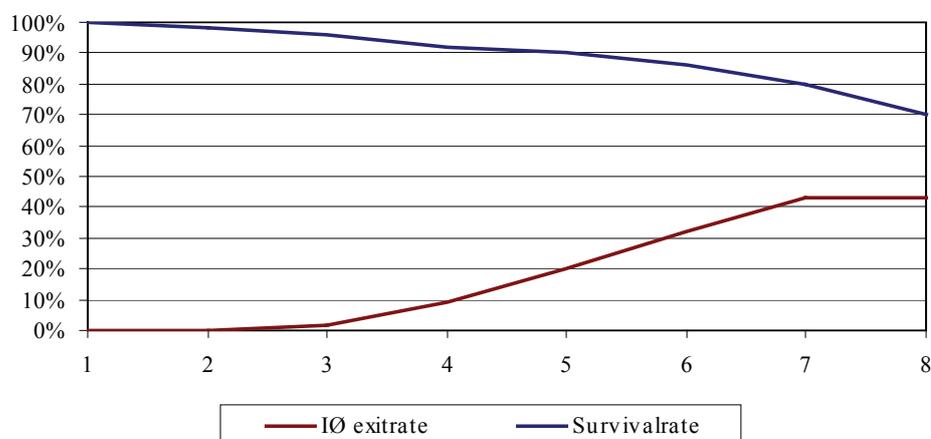


Fig. 5 shows that for each project age up to (and including) year 6 there is a closedown risk of approx. 2% a year, which corresponds to the experience of IFU. For projects older than 6 years, no discontinuation of activities has been recorded.

In fig. 6 the survival rate has been calculated by use of data showing the discontinuation of the projects. The survival rate shows how many projects are active at a given age compared to the number of projects, which have had a theoretical possibility of reaching the given age. For example 118 projects might have reached the age of 5, but as it turned out only 106 were alive at that age, creating a survival rate of 89.8%. As the data on the oldest projects are sparse, the analysis only covers the period up to and including the age of 7.

As expected, it appears from the figure that the survival rate drops as the project age increases.

**Fig. 6 IØ's exit rate and the projects' survival rate**



IØ's exit rate has been calculated in the same way as the survival rate and is shown in fig. 6.

The figure shows (as would be expected) an increasing exit rate with increasing project age, and it appears from the figure that IØ has exited well over 40% of the projects when they have reached year 8.

#### Internal Rate of Return (IRR)

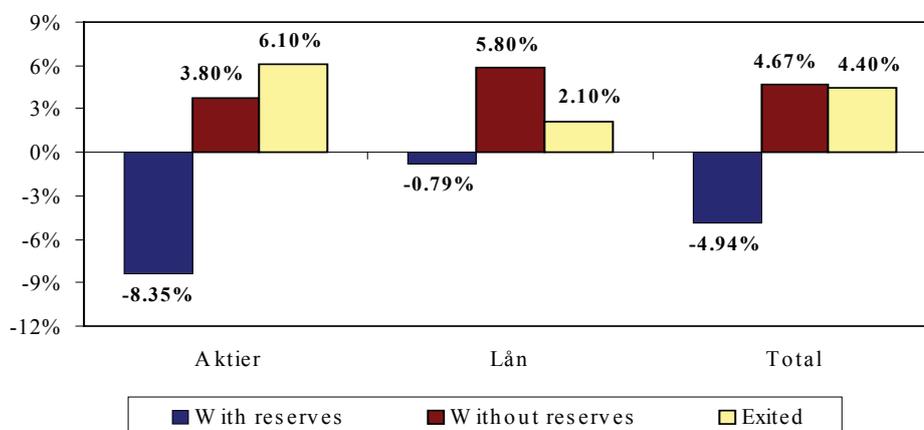
The size of IØ's return on project investments is made up by the internal rate of return. In the calculations, the expenses for administrating the project portfolio are not taken into account.

Fig. 7 below illustrates the total rate of return for all 256 IØ projects (i.e. both projects with IØ exit and projects with IØ participation at the end of 1999). The rate of return for projects with IØ exit is shown for comparison.

For projects with continued IØ participation the terminal value has been calculated as amounts outstanding in the projects at the end of 1999 less specific reserves against losses. This approach probably underestimates the value of IØ's project investments.

The internal rate of return is shown with and without specific reserves deducted in the terminal value, when it comes to the 168 projects which were active at year-end 1999.

**Fig. 7 IØ's Internal Rate of Return on projects.**



The total IRR is 4.7% without reserves and –4.9% with reserves. For exited projects the total rate of return is 4.4%. This should be viewed in the light of the fact that one of IØ's criteria for success is a net rate of return of 4% p.a. after deducting administrative expenses, which corresponds to a target IRR of 6% p.a.

Regarding share capital, the difference between IRR with and without reserves is significant. The difference (in percentage points) is somewhat smaller for project loans. This is due to reserves usually being higher on share capital than on loan capital.

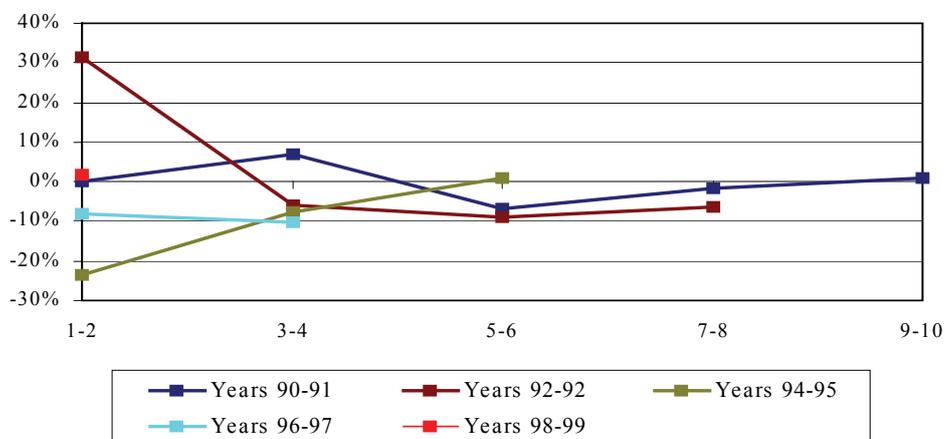
As regards exited projects, share capital has produced the highest rate of return. Thus, the internal rate on share capital is 6.1%, whereas the rate on project loans is 2.1%.

Application of the internal rate of return as a goal for the standing of the projects (from IØ's point of view) creates an opportunity to measure the rate of return for different project groupings.

By aggregating the projects into “2-year groups”, corresponding to start year, and then calculating the internal rate of the group, it is possible to get an immediate impression of the difference between year groups (vintage) and of the significance of age development.

Fig. 8 shows the development in the internal rate of return for the different “2-year groups” as a function of project age (i.e. each 2-year group has been staggered for immediate correspondence between ages).

**Fig. 8 Internal rate of return according to project year groups (2-year groups) and age**



There is a relatively big difference between the internal rate of return of the projects during their first two years of operation. The 1992-93 group has the highest IRR, whereas the 1994-95 group has the lowest IRR. There seems to be a tendency of reduced differences between the year groups with increased project age, and also a slight increase in IRR.

The projects create employment in Central and Eastern Europe and they boost exports and employment in Denmark. It is estimated that the establishment of the 256 projects has created around 25,000 jobs in Central and Eastern Europe. At the same time these projects have led to Danish exports in the amount of DKK 5bn. This corresponds to exports worth DKK 2.3 for every Danish krone invested by IØ.

IØ expects exports in the amount of DKK 0.5m to be equal to one man-year. By applying this calculation method to the 256 projects, it turns out that they have created employment in Denmark of around 10,000 man-years.

### 2.3 IØ's financial status

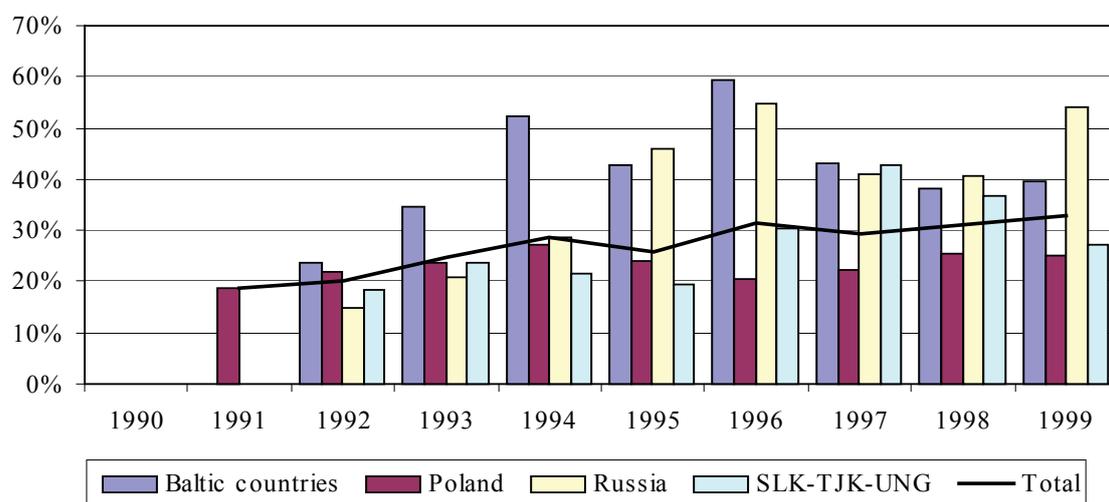
In the period from 1990 to 1999 IØ revenues amounted to DKK 475m and expenses including reserves were DKK 664m. The primary reason for the negative operating result of DKK 189m is adjustments of reserves for bad debts (DKK 430m in total).

IØ's approach to reserves means that a loss is taken into account already at the time of disbursement. In other words, IØ aims at covering expected losses in the accounts right from the beginning, when a risk of losses might occur.

During the period, there has been a heavy increase in disbursements and outstanding amounts in the form of share capital and project loans. In light of IØ's conservative approach to reserves, the increase in outstanding amounts will have a tendency in the short term to lead to a negative result for projects at a preliminary stage.

Fig. 9 below shows IØ's reserves for bad debts compared to outstanding amounts in four chosen geographical areas. The four countries/areas are the Baltic States, Poland, Russia and a group of countries consisting of Slovakia, the Czech Republic and Hungary.

**Fig. 9 Reserves compared to amounts outstanding - by geographical area**



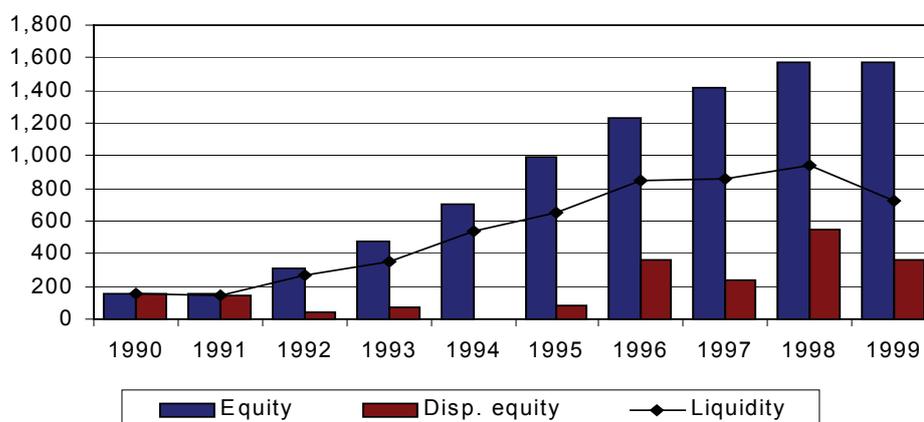
In the first part of the period the reserves, relative to the outstanding amounts, expressed some variation due to the data being very sparse. This makes the ratio very sensitive to even minor variations in the underlying figures. The increase in the reserves expressed as a percentage of outstanding amounts in recent years is mainly caused by an increase in reserves for projects in Russia, following the crisis in 1998.

Furthermore, the reserves expressed as a percentage of outstanding amounts for projects in Poland tend to be smaller than the average value. On the other hand, the reserves expressed as a percentage of outstanding amounts tend to be higher than the average in the Baltic States and Russia. This reflects the risk connected to investing in these countries/areas.

At year-end 1999, IØ's assets amounted to DKK 2,043m, of which DKK 1,297m covered amounts outstanding in the projects. The remaining assets are primarily liquid funds, of which around half is earmarked for investments.

Equity capital (DKK 1,574m) and reserves for losses (DKK 448m) mainly represent the liabilities. Figure 10 below illustrates the development in IØ's equity capital, the available equity capital and liquidity.

**Figure 10 Equity and liquidity**



IØ's equity capital has increased every year, except from 1990 to 1991 in which period a marginal drop was recorded. The equity capital increase, which took place during that period, is attributable to the capital infusion totalling DKK 1,763m.

The available equity capital is the part of the equity capital, which has neither been invested nor earmarked for investments such as binding commitments or contractually committed amounts not yet disbursed. The available equity capital was previously a reflection of the financial scope for new project activities, as it has been IØ's policy so far not to dispose of an amount higher than equity capital. In 2000, however, this policy was replaced by a liquidity based management system.

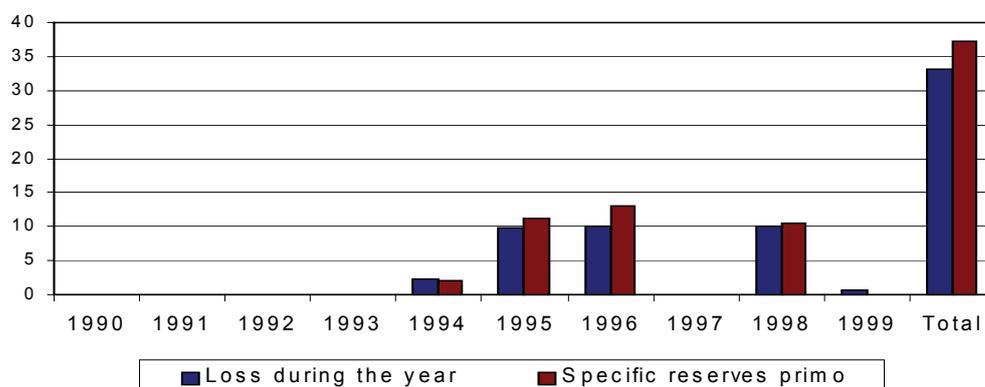
Figure 10 shows capital fluctuations in the available equity capital. At the end of 1999, the available equity capital totalled DKK 360m. This amount roughly corresponds to the investment agreements made in 1999 (new projects and additional financing).

The available equity capital and the part of the equity capital, which has been earmarked for investments constitute the liquidity of IØ. The liquidity rose until 1998, peaking at DKK 938m. At the end of 1999, the liquidity of IØ amounted to DKK 720m.

It is continuously analysed whether IØ through appropriate reserves has been able to predict realised losses year by year. In this connection, only projects with IØ-exit in a particular year are analysed.

The below analysis only involves the loss-making projects. Realised losses of share capital and project loans with specific reserves at the beginning of a particular year are compared. The results for the years in question – and for the entire period – are shown in figure 11.

**Figure 11 Losses and reserves for loss-making projects exited in a particular year**



The figure shows that there has been no registered losses of projects exited prior to 1994 (4 projects all in all). It also appears that in that period the size of losses complies with the reserves. The loss for that period totals DKK 33m whereas the corresponding reserves for the projects in question total DKK 37m. Thus, the total reserves exceed the losses by approximately 12% reflecting the Fund's cautious approach to provisions.

If all exited projects are included in the analysis, the reserves in proportion to realised losses for the entire period will increase to 1.28. In conclusion, the analysis shows that IØ's reserves exceed the size of realised losses considerably.

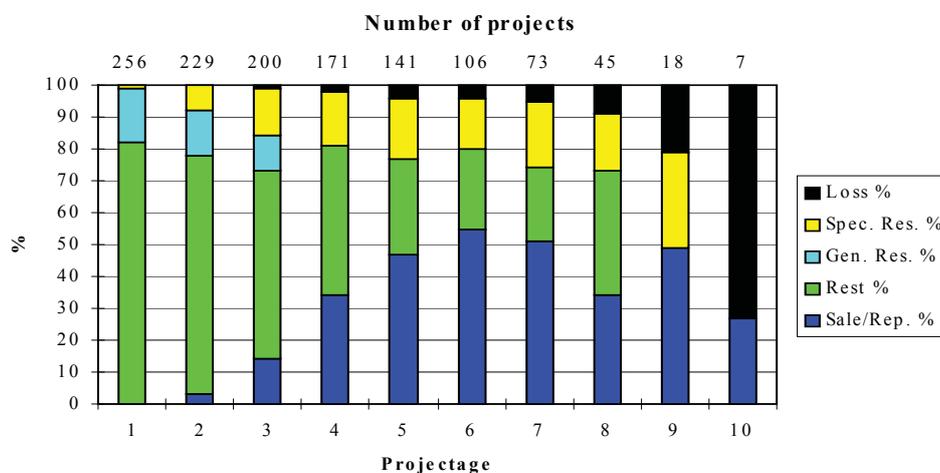
On the basis of a long-term assessment of IØ's financial situation, a so-called "hammock" analysis is applied to illustrate the development of three central financial ratios (losses, reserves and sales/repayments) for each project age. The analysis is based on an annual follow-up on each investment. An aggregation of data is prepared in order to achieve an overall assessment for each project age of the average allocation of disbursements for the three above-mentioned ratios.

When making up the age of the projects it is based on the year in which the project is initiated (i.e. the year in which an investment agreement is entered into). Every year each project will contribute with a new observation about the project age corresponding to the age of the project in question.

The current flow of new projects implies that the population of observations increases when the project age drops and, thus, the statistic significance of the figure is higher when the project age drops. In this analysis the two oldest project ages have been excluded from the analysis, as the number of observations for these ages (9-10 years) is too sparse to draw useful conclusions.

Figure 12 shows the development of the three ratios: losses, reserves and sales/repayments in relation to disbursed amounts as a function of project age. The figure includes share capital and project loans.

**Figure 12 The development of losses, reserves and sales/repayments in relation to disbursed amounts as a function of project age.**



The figure indicates that the general reserves made during the first three active years of the projects drop from 20% to 10% of the total amount disbursed. The general reserves are gradually replaced by specific reserves, which, however, are relatively small in the first years but then increase steadily up to the 7<sup>th</sup> year. The general reserves lapse in the 4<sup>th</sup> year, and losses are now recorded. The total reserves drop relatively from the 3<sup>rd</sup> to the 4<sup>th</sup> year, where all reserves are specific.

As would be expected the figure shows loss percentages tend to increase with age. It should be noted that the loss percentage for projects of a high age is based on relatively few observations. Furthermore, in the beginning of the period the investment conditions in Eastern Europe were very complex resulting in projects established in this period being exposed to relatively big losses.

A decisive question, attempted answered in this figure, is whether the fixed general reserves of approximately 20% are high enough to “absorb” the losses, which are actually realised in the long run. Data from IFU seem to indicate that the sum of losses and reserves (in percentage) around year 5-6 will be higher than the losses which are realised accordingly and that the long-term (final) loss percentages correspond roughly to the rate of the general reserves on the disbursement date. Due to the relatively short period of available IØ data, it is still not clear whether this will also apply for IØ.

Finally, an analysis of IØ’s cash flow shows details about the total disbursements and infusion of capital. In the period, DKK 1,863m have been disbursed to projects, whereas DKK 568m have been received from the projects in the shape of sales proceeds from share capital, dividends, interest and repayments on loans. IØ has been provided with capital from the Danish Government amounting to DKK 1,763m.

## 2.4 The Environmental Investment Facility for Central and Eastern Europe (MIØ)

The Environmental Investment Facility for Central and Eastern Europe (MIØ) was established in the beginning of 1995 as a separate revolving pool for environmental investments within IØ. The objective of MIØ is to make an effort to improve the environment in Central and Eastern Europe by co-financing projects in the private sector, which have a certain relevance to the environment. The funding has been provided by the Danish Environmental Assistance<sup>1</sup> under the National Agency of Environmental Protection.

Contractually, MIØ functions as an integrated part of IØ and the investments are based on IØ's legal and financial rules.

As IØ's investments, MIØ's funds may be invested as share capital and/or loans in co-operation with Danish companies in commercially sustainable environmental projects in Central and Eastern Europe for the purpose of limiting the countries' regional and local environmental strains and ensuring a transfer and structure of the necessary environmental technology in the countries.

From 1995 to 1999 the number of new MIØ projects has been ranging from 3 to 10 per year. MIØ has participated in 30 projects in total and has invested DKK 385m. 3 projects have been exited which means that MIØ participated in 27 projects at the end of 1999.

The gross internal rate of return of the 30 MIØ projects has been 3.5% before reserves and -6.3% after specific reserves.

MIØ's consolidated accounts from 1995 to 1999 shows that the investment facility had a loss of DKK 31m including provisions for losses of a total of DKK 55m.

MIØ's assets are constituted by an outstanding amount in share capital (35%), project loans (19%) and liquid funds (45%).

MIØ's facility capital has increased steadily throughout the period and at the end of 1999 it amounted to DKK 368m. The available facility capital has been ranging from approx. DKK 50m to DKK 100m. At the end of 1999 the available facility capital was DKK 84m.

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<sup>1</sup> Miljø- og Katastroferammen

## Conclusion

The purpose of analysing IØ's activities every 5 years (as well as the activities of its sister fund IFU) is partly to throw light on a number of aspects of IØ's project work and partly to draw conclusions which could help improve future working methods and results.

IØ's existence and operations during the last 10 years should be viewed in the context of difficult and unsettled times in the geographical areas covered by the Fund. After the breakdown of Communism, Central and Eastern Europe has gone through a bumpy and risky transition. Foreign investments and know-how have played an important role, but investors have been subjected to considerable risks.

In general, the companies who have invested in Central and Eastern Europe have worked under difficult circumstances. However, the development in most of the countries is now pointing in the direction of more stable financial and political conditions. At the same time there has been a development and strengthening of institutions working to further democracy and market economy.

The financial crisis in Russia in 1998 has led to increased uncertainty about foreign investments in Russia. Fortunately, it seems that the crisis has only had a minor impact on the main part of Russia's neighbouring countries. At the end of 2000 there seemed to be hope of a more stable financial development in Russia.

A number of countries in Central and Eastern Europe have applied for admission to the European Union. The current negotiations will be decisive for the more specific terms of the enlargement, but a time frame of 3-5 years is realistic. The enlargement with the Central and Eastern European countries closest to the borders of the EU will move the geographical area of IØ further to the east. This could increase the risks connected with investments, partly because of political instability and partly as a result of less favourable investment conditions in those countries.

In the past ten years IØ has increased its project activities significantly. The level of activities now corresponds to that of IFU. In light of IØ's conservative approach to provisions, the resulting substantial growth in share capital and project loans has led to a negative result for the period. In the long term, IØ expects this loss to be compensated by positive earnings.

The analysis of IØ's project administration and of the cause of the projects shows a closedown risk factor of approx. 13% in the first year of existence (cancellation). After that, the closedown risk drops to approx. 2% p.a. This corresponds to the experience of IFU after 30 years of operation.

IØ's objective is to reach a net rate of return (IRR) of 6% p.a., corresponding to a return on the investment capital of 4% less administration costs of 2%. The analysis of the internal rate of return attributable to IØ suggests that in general the profitability of the projects is still negative. Looking at only the projects exited so far, an internal rate of 4.4% is achieved. This is somewhat lower than the fixed minimum requirement. But as more and more of the large project investments are exited, the internal rate of return is expected to reach the objective decided on by IØ.

As would be expected, the analysis of the return on the investments shows a tendency of an increasing internal rate of return with increasing project age. At the same time, there is a tendency of an increase in the internal rate of return when the size of the project and the size of the Danish partners increase, which corresponds to the experience of IFU.

An analysis of reserves compared to recorded losses establishes IØ's conservative approach to reserves, as the reserves exceed the recorded losses throughout the period.

The relatively short time span and the few observations on which the "hammock" models are based makes it difficult to draw any conclusions about the long term development in losses and reserves compared to project age. In the 30-year report of IFU there is a clear tendency of the sum of reserves and realised losses peaking around project age 6-7 years. To a large extent, part of the reserves could be carried back after that and thus contribute positively to the operating result. A similar development is expected for IØ.

Finally, an analysis of IØ's cash flow shows that additional capital of DKK 1,763m was injected in IØ during the period. A total of 1,863m were paid out to projects, while sale of shares proceeds, dividends, interest and repayments of loans have contributed DKK 568m.