

Profitability Analysis of Government Support for Business Start-ups

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Abstract

When the government spends several billion euros every year to support the financing of business start-ups, it is appropriate to ask whether the taxpayers' money is well invested. Since the national economy is a dynamic system, and every day enterprises both large and small fall victim to the structural change in the markets, the government has understandable motives in offering assistance to new and young companies through the instrument of start-up support.

The question must be posed whether the effects associated with **start-up subsidies** oriented towards the costs side could possibly also be achieved by other means. A different approach would be to assist the fledgling companies in rapidly generating profitable new business transactions, i.e. through the mechanism of **earnings support** oriented towards the income side. To all practical intents and purposes, this approach is not yet being pursued in Germany. This is unfortunate, as its implementation would be feasible even without dedicating a considerable amount of the taxpayer's money, for example by prescribing as a standard clause in the weighty state procurement programmes and ordering procedures that a certain proportion of the order volume – perhaps five to ten percent – must be contributed by young enterprises, independently of the price and quality (and market power). One could define “young enterprise” to mean any company founded less than three to five years ago. In this way, these young enterprises would be given improved chances of winning profitable business during the difficult initial phase of their entry into the market – which also takes place in competition to the established firms. Such a clause for earnings support bears some similarity to the “local content” clause familiar in the project sector.

With the aid of a fictitious example, the paper will show what results may be obtained **without government support, with start-up subsidies** and **with earnings support**:

After comparing the results of the variant involving start-up subsidies with that involving earnings support, one is quickly led to the conclusion that an increase in sales of only five percent is already able to compensate for the benefits offered by subsidies. With an eye to nurturing the entrepreneurial ecosphere, the bottom line of this profitability analysis is that politics may be well advised to replace – at least partially – the usual dose of taxpayers' money by a helping hand applied intelligently.

Profitability Analysis of Government Support for Business Start-ups

1. Preamble

When the government spends several billion euros every year to support the financing of business start-ups, it is appropriate to ask whether the taxpayers' money is well invested. Since the national economy is a dynamic system, and every day enterprises both large and small fall victim to the structural change in the markets, the government has understandable motives in offering assistance to new and young companies through the instrument of start-up support. These budding young entrepreneurs are needed to fill the gaps left by the companies that have failed. After all, the government also has an interest in maintaining and expanding the tax base by fostering new, successful companies. With this in mind, the money invested in start-up support can indeed constitute a wise investment.

It should be noted that, in all probability, the possibility of siphoning off the taxpayers' money does not rank uppermost in the motives of young entrepreneurs. In actual fact, the prime motives for starting a business include the following:

- The realization of your own ideas
- The desire to be your own boss
- Being the master of your own time
- The prospect of higher income
- The lack of opportunities for professional advancement at your current employer

Of course, these opportunity motives are not anything new and have probably been significant reasons why new firms sprouted up continually long before any start-up support was given by the government. What is more, it would be an interesting and also non-trivial exercise to examine to what extent government support is able to invigorate the entrepreneurial ecosphere.

Here the aim should not be to cast doubt on the fundamental commitment and involvement of the government. On the contrary, the question must be posed as to whether the effects associated with **start-up subsidies** oriented towards the costs side could possibly also be achieved by other means. A different approach would be to assist the fledgling companies in rapidly generating profitable new business transactions, i.e. through the mechanism of **earnings support** oriented towards the income side. To all practical intents and purposes, this approach is not yet being pursued in Germany. This is unfortunate, as its implementation would be feasible even without dedicating a considerable amount of the taxpayer's money, for example by prescribing as a standard clause in the weighty state procurement programmes and ordering procedures that a certain proportion of the order volume – perhaps five to ten percent – must be contributed by young enterprises, independently of the price and quality (and market power). One could define “young enterprise” to mean any company founded less than three to five years ago. In this way, these young enterprises would be given improved chances of winning profitable business during the difficult initial phase of their entry into the market – which also takes place in competition to the established firms.

Such a clause for earnings support bears some similarity to the “local content” clause familiar in the project sector. The local content clause stipulates that a specific percentage of certain projects must be delivered by local companies. This provision ensures that the regional or national industry is nurtured and strengthened. Although it is not a guarantee for receiving orders, the rocky path to securing business is made easier by this welcome form of government intervention. The corresponding clause for young enterprises could give them a valuable springboard into the industry or into a difficult market.

With the aid of a fictitious example, the following will show what results may be obtained **without government support, with start-up subsidies and with earnings support.**

2. Case Study

After completing their studies, three engineers establish a company in Bremen. They have developed a new method for producing microsensor components of high quality in a cost-effective manner. The market analysis indicates that there is a great demand for this innovative product. Each engineer contributes 20,000 € towards the funding and his own manpower towards the newly founded enterprise. In addition, two employees are hired for the production and administration tasks, to be joined from the second year by a third. The components are manufactured to order, which means that the production volume depends on the quantity ordered. This will keep the inventory costs low.

Investment plan

The three entrepreneurs have decided to purchase, and not lease, all of the initial capital assets that are needed. The production facility costs 150,000 €, while machines are bought for 120,000 €, vehicles for 30,000 € and operating and business equipment for 80,000 €. To secure the initial monthly salaries of the employees in the formation phase, a liquidity cushion of 20,000 € is applied. The following investment plan provides an overview:

Production facility	150,000 €
Machines	120,000 €
Vehicles	30,000 €
Operating equipment	80,000 €
Liquidity cushion	20,000 €
Total	400,000 €

Table 1: Investment plan for a start-up

With the aid of a market research company, the following sales and turnover forecast is drawn up:

	Year 1	Year 2	Year 3
Sales price per unit	1,600 €	1,600 €	1,800 €
Quantity sold (units)	250	360	360
Turnover	400,000 €	576,000 €	648,000 €
Variable manufacturing costs per unit	260 €	260 €	280 €

Table 2: Forecasted sales and manufacturing costs

For the first year, the average expected sales price is 1,600 € per unit, the variable manufacturing costs are 260 € per unit, and 250 units are sold. For the second year, it is assumed that demand will be higher and production will be optimized. Sales of 360 units are projected. For the third year, the entrepreneurs keep the expected sales at a level of 360 units. Owing to the expected rise in raw material prices and staff costs, the sales price is increased to 1,800 € and the variable manufacturing costs to 280 €.

3. Results without Government Support

The financial plan without government support describes a business start-up that operates on an unsubsidized **loan**. The interest is set by the bank at 8 percent for 100-percent loan disbursement, and no grace period for repayment is granted for a credit term of five years. The loan amount is limited to a maximum of 50% of the capital investment of 380,000 €, i.e. 190,000 €. The financial plan hence consists of the equity contributed by the three founders and a loan amount of 190,000 € to cover the planned investments and expenses. This leaves a gap to the amount of 150,000 €.

The participation of an investor is therefore sought. In providing the funds to cover a company's financial needs, such investors do not as a rule participate in the day-to-day running of the firm; rather, they function as "silent" or "sleeping" partners and receive a portion of the profits in return. For the entrepreneurs, such a **silent participation** offers a number of advantages in comparison to debt financing. Amongst other things, the entrepreneurs do not have to provide any collateral to cover the amount of the participation, so that they no longer have to bear the financial risk by themselves. The start-up company in question decides in favour of the investment programme offered by a local bank. This entails a silent participation with a duration of ten years. The return on investment for the silent contribution is made up of the prescribed interest rate of ten percent, the payout sum and a variable, profit-dependent part that is decided individually. The investment programme offers a silent contribution ranging up to the equity capital as a maximum. This limit is exploited to the full by the entrepreneurs.

There remains a gap of 90,000 € and this is closed by the **open participation** of an investment company. The return on investment comprises the profit-related portion corresponding to the investment share. In this case, the investor demands an advanced distribution to the amount of 12%

p.a. If the advanced distribution cannot be paid out because the company finds itself in an inadequate profit situation, then this payment must be disbursed at the next possible time. Since the equity has increased to 150,000 €, the share of the third-party shareholders must now be stated as 60%. Besides their own funds of 60,000 €, the young businessmen therefore employ 90,000 € of open participation and 60,000 € of silent participation to augment the equity capital. This yields a total equity of 210,000 €. The funding gap of 190,000 € existing in addition to the equity is closed by the loan.

The financial plan is given in the following table:

Equity of the founders	60,000 €
Open participation of investor A	90,000 €
Silent participation of investor B	60,000 €
Total equity	210,000 €
Start-up loan	190,000 €
Total	400,000 €

Table 3: Financial plan (without government support)

The funding can therefore be secured in this way; however, the founders are no longer the majority shareholders. Moreover, the financing costs are not exactly insignificant. On the other hand, it is now possible to begin the start-up project, and a smaller piece of the pie is sometimes better than no pie at all. The two tables below reflect the profit and loss statement as well as the cash flow budget for the first three years, with the tax burden of corporate tax and trade tax being assumed as a blanket rate of 40%:

	Year 1	Year 2	Year 3
Income			
Turnover	+400,000 €	+576,000 €	+648,000 €
Expenses			
Less variable manufacturing costs	65,000 €	93,600 €	100,800 €
Less staff costs	85,000 €	135,000 €	150,000 €
Less managing directors' salaries for the founders	180,000 €	180,000 €	180,000 €
= Total operating expenses	-330,000 €	-408,600 €	-430,800 €
= EBDIT	+70,000 €	+167,400 €	+217,200 €
Less depreciation	-38,000 €	-38,000 €	-38,000 €
= EBIT	+32,000 €	+129,400 €	+179,200 €
Less interest	15,200 €	12,160 €	9,120 €
Less base interest of silent participation	6,000 €	6,000 €	6,000 €
= Financial result	-21,200 €	-18,160 €	-15,120 €
EBT	+10,800 €	+111,240 €	+164,080 €
Less taxes	-4,320 €	-44,496 €	-65,632 €
Net profit	+6,480 €	+66,744 €	+98,448 €
Advanced distribution for investors	-10,800 €	-10,800 € -4,320 €	-10,800 €
Net profit after advanced distribution	-4,320 €	+51,624 €	+87,648 €

Table 4: Profit and loss statement (without government support)

In the first year, the earnings before taxes are lower than in the subsequent years. Because of this, the net profit in the first year is not quite high enough to cover the advanced distribution for the investor. The outstanding amount must then be paid in the second year. On the whole, the undertaking is just about viable, even without the government subsidies. Nevertheless, the margin of safety is very thin because small cost increases, missed sales targets or reduced sales prices can soon push the project underwater.

	Year 1	Year 2	Year 3
Deposits			
Turnover	+400,000 €	+576,000 €	+648,000 €
Payments			
Less variable manufacturing costs	65,000 €	93,600 €	100,800 €
Less staff costs	85,000 €	135,000 €	150,000 €
Less managing directors' salaries for the founders	180,000 €	180,000 €	180,000 €
= Total operating payments	-330,000 €	-408,600 €	-430,800 €
= Operating payment balance	+70,000 €	+167,400 €	+217,200 €
Less expenditure on capital assets	-380,000 €	-	-
Less interest	15,200 €	12,160 €	9,120 €
Less base interest of silent participation	6,000 €	6,000 €	6,000 €
= Interest balance	-21,200 €	-18,160 €	-15,120 €
Less advanced distribution for investor	-6,480 €	-15,120 €	-10,800 €
Less debt repayment	-38,000 €	-38,000 €	-38,000 €
Less taxes	-4,320 €	-44,496 €	-65,632 €
Liquidity balance after taxes	-380,000 €	+51,624 €	+87,648 €
Compensatory measures			
Borrowing	+190,000 €		
Provision of equity capital	+210,000 €		
Total compensatory measures	+400,000 €		
Cash resources at year end, before dividend payout	+20,000 €	+51,624 €	+87,648 €

Table 5: Liquidity planning (without government support)

4. Results with Government Subsidies for Start-ups

Guarantees

For business start-ups, the presentation of collateral is often conducive to the granting of loans. Guarantees provided by guarantors with a good credit rating are regarded as valuable securities. These are offered inter alia by the government in order to enhance the creditworthiness of a company. Furthermore, they allow access to the more favourable lending terms of the KfW or (in Bremen) of the “Bremen Business Loan”. The application for a guarantee may be submitted through the house bank. Acting in concert with the company, the house bank will then put in an application to the guarantee bank, in this case “Bürgschaftsbank Bremen”. In this way, the house bank can be unburdened of up to 80 percent of the risk in dispensing the loan.

For companies with no suitable house bank, the guarantee banks offer the possibility of submitting a direct application. The advantage of this approach is that, when subsequently choosing a house bank, it is possible to present a guarantee, so that the loan can be processed and granted without delay. In Bremen, small and medium-sized enterprises of all branches of trade, together with members of all professional sectors in terms of the SME policy, are entitled to submit applications. All applicants must be domiciled in Bremen.

Sample conditions for a guarantee:	
• One-time administrative fee	1.25%
• Annual guarantee commission	1.25%
• Basis for calculation	Loan amount
• Regular ceiling	750,000 €
• Guarantee share (normal procedure)	80% maximum
• Term	15 years maximum

Table 6: Sample conditions for a guarantee¹

The **Bremen Business Loan** is an assisted type of loan. The Bremen Business Loan is used by business start-ups and SMEs for the long-term financing of investments within the State of Bremen and also as short-term working capital credit. The loans are granted at favourable, risk-appropriate interest rates; the terms can be frozen for the entire life of a loan. For the capital expenditure variant, Bremer Aufbau-Bank GmbH makes use of the favourable terms of the KfW Entrepreneur Loan and turns it into an even more attractive package. For the working capital loan, Bremer Aufbau-Bank can also deploy its own funds. It does not issue the Bremen Business Loan directly to the investor, but solely through credit institutions, which take on complete liability for the credit transmit-

¹ See: www.buergschaftsbank-bremen.de/leistungen.php/konditionen/Konditionen/

ted by them. The application must therefore be submitted to a credit institution; here the borrower has freedom of choice. The loan amount can range up to a maximum of 5 million euros per project.

For the pricing of the Bremen Business Loan, it is necessary to determine the credit rating class and the collateral class. The results are then used for the categorisation into a price bracket.

Credit rating class

Owing to the high demand for the product, high profit margins may be expected for the sample case. Accordingly, the one-year probability of default may be regarded as low. (The one-year probability of default is determined by applying a rating procedure. It indicates the statistical probability that the borrower will become insolvent within the space of a year. Over the entire term of a loan, the delinquency probability is several times higher – depending on the further development of the borrower’s financial situation.) Owing to the minimal one-year probability of default, the sample case is given a credit rating class of 2, which is then used for determining the price bracket:

Credit rating class (Bremer Aufbau-Bank)	Credit rating (house bank)	Risk assessment (house bank)	1-year probability of default
1	Very good	Low	Up to 0.3%
2	Good		$> 0.3\% \leq 0.9\%$
3	Satisfactory		$> 0.9\% \leq 1.5\%$
4	Still satisfactory		$> 1.5\% \leq 2.5\%$
5	Adequate		$> 2.5\% \leq 4.5\%$
6	Still adequate	High	$> 4.5\%$

Table 7: Credit rating classes of Bremer Aufbau-Bank²

Collateral class

With an 80% guarantee given by Bürgschaftsbank Bremen, the sample case is categorised into collateral class 1:

Collateral class	1	2	3	4
Valuable collateralization in %	$\geq 80\%$	$\geq 50\%$ and $< 80\%$	$\geq 30\%$ and $< 50\%$	$< 30\%$

Table 8: Collateral classes of Bremer Aufbau-Bank³

² See: www.bab-bremen.de/detail.php?gsid=bremen172.c.2222.de

³ See: www.bab-bremen.de/detail.php?gsid=bremen172.c.2222.de

Price bracket

The figures obtained from the credit rating class and collateral class together form the possible combinations of the price brackets from A to G. The company of the sample case is placed in price bracket B, with a credit rating class of 2 and a collateral class of 1. Price bracket B is assigned a maximum interest tariff which can vary according to the interest rate market. The interest tariff without guarantee would correspond to price bracket F.

Price bracket of Bremer Aufbau-Bank	A	B	C	D	E	F	G
Nominal interest rate p.a. (in %) of the Bremen Business Loan for a 5-year loan	1.45	1.80	2.10	2.40	2.90	3.60	4.30

Table 9: Overview of terms applying for the Bremen Business Loan (from 17.07.2009)⁴

The interest rate as of autumn 2009 for a 5-year loan is therefore 1.8% p.a. in price bracket B.

Equity

In addition to the 60,000 € of equity, the entrepreneurs in the sample case make use of 100,000 € from the ERP Capital for Start-ups programme, which is applied as a subordinated loan to bolster the firm's equity. The equity can thus be stocked up to as much as 45% of the total investments. ERP Capital for Start-ups grants the borrower a seven-year grace period for repayment of the principal and guarantees 100% disbursement. The term of a loan is as a rule 15 years, and interest rate subsidies are provided by the ERP Special Fund during the first ten years. In the event of insolvency, the loan must only be repaid after all other liabilities have been settled.

A basic prerequisite for the granting of this loan is that the own funds contributed by the borrower must cover at least 15% of the total costs eligible for financing. With a personal share of 60,000 €, the entrepreneurs meet this requirement. This results in a total equity of 160,000 €, corresponding to 40% of the overall investments. In western Germany, the terms for the subordinated loan lie at 1.85% p.a. during the first three years of the life of the loan, and at 3.85% p.a. from the fourth year.⁵

Financial plan

The sample case therefore uses 60,000 € of own equity and 100,000 € of outside equity. The Bremen Business Loan is applied for the remaining sum of 240,000 €. Here a distinction is made between investment credit and working capital credit. The investment loan serves to finance long-term assets and attracts a more favourable interest rate than the working capital loan (in price bracket B, the working capital loan has an interest rate of 3.25% p.a. – as from 17.07.2009.)

⁴ See: www.bab-bremen.de/detail.php?gsid=bremen172.c.2222.de

⁵ See: www.kfw-formularsammlung.de/KonditionenanzeigerINet/KonditionenAnzeiger?Bankengruppe=1590781856

The two basic types of credit also differ in respect of the life of the loan. The investment loan usually has a term of ten years, and only in special cases more than twelve. Moreover, long-term investments also have an additional year without repayment of the principal. In contrast, Bremer Aufbau-Bank allows at most a life of six years for a working capital loan. Both types of credit have the same disbursement rate of 96%. For the borrowers, this means they will have to apply for a loan of 250,000 € from Bremer Aufbau-Bank in order to cover their requirement of 240,000 €.

The following table summarizes the details of the financial plan:

Equity of the founders	60,000 €
ERP Capital for Start-ups	100,000 €
Bremen Business Loan (disagio)	240,000 € (10,000 €)
Investment loan	220,000 €
Working capital loan	20,000 €
Total	400,000 €

Table 10: Financial plan (with start-up subsidies)

The above-mentioned turnover figures and expenses then yield the following profit and loss statement for the version with start-up subsidies:

	Year 1	Year 2	Year 3
Income			
Turnover	+400,000 €	+576,000 €	+648,000 €
Expenses			
Less variable manufacturing costs	65,000 €	93,600 €	100,800 €
Less staff costs	85,000 €	135,000 €	150,000 €
Less managing directors' salaries for the founders	180,000 €	180,000 €	180,000 €
= Total operating expenses	-330,000 €	-408,600 €	-430,800 €
= EBDIT	+70,000 €	+167,400 €	+217,200 €
Less depreciation	-38,000 €	-38,000 €	-38,000 €
= EBIT	+32,000 €	+129,400 €	+179,200 €
Less financial result	-12,902 €	-9,777 €	-9,365 €
EBT	+19,098 €	+119,623 €	+169,835 €
Less taxes	-7,639 €	-47,849 €	-67,934 €
Net profit	+11.459 €	+71.774 €	+101.901 €

Table 11: Profit and loss statement (with start-up subsidies)

The profit and loss statement with start-up subsidies is identical to the variant without government support, up to the EBIT result. The financial result, comprising the interest and the guarantee fee, then yields differences. Interest of 1.85% p.a. must be paid for the ERP Capital for Start-ups loan (having a seven-year grace period for repayment) during the first three years. The investment credit variant of the Bremen Business Loan must be concluded with 229,167 € in order to cover the net requirement of 220,000 € (with 96% disbursement). The term of the loan is ten years with one interest-only year, i.e. repayment begins in the second year with the amount of 22,917 €. The working capital credit variant of the Bremen Business Loan must be concluded with 20,833 € in order to cover the net requirement of 20,000 €. The term of the loan is six years with a balloon repayment, so the interest at a rate of 3.25% p.a. amounts to 677 € per year.

Added to the interest, there is the guarantee fee of 1.25% once in the first year and 1.25% annually on the loan amount of 250,000 €, making it 3,125 € once and the same amount again each year. A share of the investment earnings for an investor is not applicable with this financing variant.

In the liquidity planning, the results of the variant with start-up subsidies are again identical to those of the variant without government support – up to the operating payment balance. Differences arise

with regard to the interest balance, debt repayments and taxes. The effects of the liquidity arrangement are summarised in the following table:

	Year 1	Year 2	Year 3
Deposits			
Turnover	+400,000 €	+576,000 €	+648,000 €
Payments			
Less variable manufacturing costs	65,000 €	93,600 €	100,800 €
Less staff costs	85,000 €	135,000 €	150,000 €
Less managing directors' salaries for the founders	180,000 €	180,000 €	180,000 €
= Total operating payments	-330,000 €	-408,600 €	-430,800 €
= Operating payment balance	+70,000 €	+167,400 €	+217,200 €
Less expenditure on capital assets	-380,000 €	-	-
Less interest balance	-12,902 €	-9,777 €	-9,365 €
Debt repayments	-	-22,917 €	-22,917 €
Less taxes	-7,639 €	-47,849 €	-67,934 €
Liquidity balance after taxes	-330,541 €	+86,857 €	+116,984 €
Compensatory measures			
Borrowing	+190,000 €		
Provision of equity capital	+210,000 €		
Total compensatory measures	+400,000 €		
Cash resources at year end, before dividend payout	+69,459 €	+86,857 €	+116,984 €

Table 12: Liquidity planning (with start-up subsidies)

5. Results with Earnings Support

Regarding the start-up assistance through earnings support, i.e. through general help with getting more and better orders early on during the formation phase, the analysis is built upon the results without government support. In particular, the financing modalities remain unchanged; only the sales and hence the turnover are increased moderately. Owing to the increase in sales and turnover,

which is initially assumed to lie at the very temperate level of 5%, the fixed costs remain unchanged. The corresponding profit and loss statement as well as the liquidity planning are then obtained from the two tables below:

	Year 1	Year 2	Year 3
Income			
Turnover	+420,000 €	+604,800 €	+680,400 €
Expenses			
Less variable manufacturing costs	68,250 €	98,280 €	105,840 €
Less staff costs	85,000 €	135,000 €	150,000 €
Less managing directors' salaries for the founders	180,000 €	180,000 €	180,000 €
= Total operating expenses	-333,250 €	-413,280 €	-435,840 €
= EBDIT	+86,750 €	+191,520 €	+244,560 €
Less depreciation	-38,000 €	-38,000 €	-38,000 €
= EBIT	+48,750 €	+153,520 €	+206,560 €
Less interest	15,200 €	12,160 €	9,120 €
Less base interest of silent participation	6,000 €	6,000 €	6,000 €
= Financial result	-21,200 €	-18,160 €	-15,120 €
EBT	+27,550 €	+135,360 €	+191,440 €
Less taxes	-11,020 €	-54,144 €	-76,576 €
Net profit	+16,530 €	+81,216 €	+114,864 €
Advanced distribution for investors	-10,800 €	-10,800 €	-10,800 €
Net profit after advanced distribution	+6,730 €	+70,416 €	+104,064 €

Table 13: Profit and loss statement (with earnings support)

	Year 1	Year 2	Year 3
Deposits			
Turnover	+420,000 €	+604,800 €	+680,400 €
Payments			
Less variable manufacturing costs	68,250 €	98,280 €	105,840 €
Less staff costs	85,000 €	135,000 €	150,000 €
Less managing directors' salaries for the founders	180,000 €	180,000 €	180,000 €
= Total operating payments	-333,250 €	-413,280 €	-435,840 €
= Operating payment balance	+86,750 €	+191,520 €	+244,560 €
Less expenditure on capital assets	-380,000 €	-	-
Less interest	15,200 €	12,160 €	9,120 €
Less base interest of silent participation	6,000 €	6,000 €	6,000 €
= Interest balance	-21,200 €	-18,160 €	-15,120 €
Advanced distribution for investors	-10,800 €	-10,800 €	-10,800 €
Debt repayments	-38,000 €	-38,000 €	-38,000 €
Less taxes	-11,020 €	-54,144 €	-76,576 €
Liquidity balance after taxes	-342,302 €	+70,416 €	+104,064 €
Compensatory measures			
Borrowing	+190,000 €		
Provision of equity capital	+210,000 €		
Total compensatory measures	+400,000 €		
Cash resources at year end, before dividend payout	+57,698 €	+70,416 €	+104,064 €

Table 14: Liquidity planning (with earnings support)

After now comparing the results of the variant involving start-up subsidies with that involving earnings support, one is quickly led to the conclusion that an increase in sales of only five percent is already able to compensate for the benefits offered by subsidies. The somewhat better results in liquidity planning obtained for the variant with start-up subsidies can be ascribed to the reduced debt repayment attained there. An overview is given in the following table:

	Year 1	Year 2	Year 3
EBT (with start-up subsidies)	+19,098 €	+119,623 €	+169,835 €
EBT (with earnings support)	+27,550 €	+135,360 €	+191,440 €
Net profit (with start-up subsidies)	+11,459 €	+71,774 €	+101,901 €
Net profit after advanced distribution (with earnings support)	+6,730 €	+70,416 €	+104,064 €
Cash resources at year end, before dividend payout (with start-up subsidies)	+69,459 €	+86,857 €	+116,984 €
Cash resources at year end, before dividend payout (with earnings support)	+57,698 €	+70,416 €	+104,064 €

Table 15: Comparison of the results for the variant with start-up subsidies and that with earnings support

6. Conclusion

Analysis of the above figures leads to the conclusion that especially the annual results of the two variants are comparable. Doing without tax-funded subsidies can also lead to equivalent start-up successes if the instrument of earnings support is employed instead. However, the situation must be viewed differently from the standpoint of the founders: in the case of earnings support they will have to share the enterprise's earnings with the outside investors, whereas in the case of start-up subsidies they remain the sole owners of the company and hence of the earnings. In essence, the start-up subsidy becomes a founder subsidy. From the viewpoint of the start-up founders, comparable results are attained for the variant with earnings support if it becomes possible to boost sales by about 40%. Even such a consequence of earnings support would appear feasible. With an eye to nurturing the entrepreneurial ecosphere, the bottom line of this profitability analysis is that politics may be well advised to replace – at least partially – the usual dose of taxpayers' money by a helping hand applied intelligently.

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