

Certified Capital Companies and State Economic Development

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Summary

Over the past two decades, “economic development” has become a recognized, albeit contentious, function of state and local government. In order to perform this new role, governments have developed an arsenal of incentive programs designed to retain existing firms or attract new ones. The primary beneficiaries of these programs have been large companies – particularly in the manufacturing sector. Criticism of economic development programs has been both wide-spread and harsh.

The most common argument advanced in opposition to these programs is that they merely encourage the movement of capital and labor from one place to another and result in no new net job creation. Or borrowing a term from game theory, they represent the process as a zero-sum game. Some have even argued that the resultant spatial distribution of capital and jobs is less efficient than the pattern would have been without the incentives, producing a negative-sum.

Perhaps the most critical factor related to this issue is the likelihood that the particular investment would have occurred in the absence of the incentives. If the investment would have occurred anyway – which is the most probable scenario for large, well-established companies – then the use of the incentives only results in a reshuffling of jobs and investment between regions.

Small business, however, is one sector of the economy where investment and job creation in the absence of incentives is much less likely. This is due in part to two factors: the lack of access to traditional capital markets and the absence of the specialized managerial skills necessary to facilitate capital creation. Unfortunately, this sector of the economy, which would benefit the most from incentive programs, has received the least help. In Missouri, for example, only four of the 21 tax incentive programs designed to encourage investment and job growth are directed primarily at small business.

Given the tremendous importance of small business to the Missouri economy – 95 percent of all companies and 35 percent of all jobs – it is remarkable that so few of the state-sponsored programs designed to stimulate economic growth are directed at assisting smaller firms. This lack of support is even more inexplicable given the dynamic potential of small emerging businesses.

One possible explanation may be the strategic focus of economic development officials. Traditionally, states have concentrated on generating a large number of jobs simultaneously; for example, by attracting a corporate headquarters or manufacturing facility to the state. Additionally, programs designed to support and grow small businesses often require a much different skill set, which is more predominant in the private sector. Unfortunately, programs that place the locus of control in the private sector, which is generally demonstrated to be more efficient, often provoke the ire of circumvented bureaucrats.

A program that does address the small business sector, and that utilizes private sector expertise to do so, is the Certified Capital Companies (CAPCO) program that has been adopted in nine states, including Missouri. In essence, a CAPCO is merely a special type of venture capital fund. The program, however, has two features that

differentiate it from the private sector VC funds. The first is the economic development mission of the CAPCO program. This is, in fact, the sole objective of the program. The other distinguishing feature is that the initial seed money to establish the venture fund is provided by insurance companies.

This approach to economic development has many advantages that are not inherent in traditional state programs. The most obvious of these is the ability of the program to generate additional investment funds from traditional capital markets. For the two largest Missouri CAPCO's, Advantage Capital and BOME/Gateway, which comprise over 70 percent of the entire program, the ratio of leveraged to direct investment is an astonishing 24 to 1.

Another benefit of the program's structure is that the deferred utilization of tax credits allows for the fiscal impact of increased revenue-generating activity to actually precede any state revenue loss from the tax credits themselves. This contrasts with many other programs in which the tax credits are utilized during the first year of operations. It also compares favorably to programs that use contingent or off-balance sheet tax credits, which when ultimately claimed can shock the state budget without warning.

A further salient feature of the CAPCO program is that it brings the hands-on management expertise that is essential to the development of the small firms. This aspect is unique compared to other state incentive programs that cannot offer the day-to-day management help that is required for long-term success.

While there is often much debate about how to analyze the effectiveness of economic development programs, one generally accepted approach is the use of cost-benefit analysis. The technique consists of determining the total costs and benefits of a particular program and then calculating the ratio of benefits to cost.

The determination of the cost of the CAPCO program is fairly simple. On a cash flow basis, it is merely the annual value of the tax credits claimed by the insurance companies. For the two largest CAPCO's this amounts to a total of \$98.1 million over the 10-year redemption horizon, or about \$9.8 million per year.

Translating investment expenditures into output, jobs and payrolls necessitates the use of sophisticated economic models and multiplier analysis. While this technique certainly has its limitations, it is the most common and accepted analytical technique to evaluate the economic impact of a particular program, from the construction of a sports facility to the closing of a military base.

Direct Missouri Jobs Due to the CAPCO Program

1997	1998	1999	2000	2001	2002	Total
233	576	1,327	1,888	2,440	1,914	8,378

Using the most conservative assumptions as to the economic impacts, the CAPCO program has been a huge success. Direct Missouri job-years attributable to the program totaled over 8,000 as of the end of 2002. Secondary or multiplier effects

have resulted in an additional 6,900 job-years. The corresponding gains in personal income have equaled nearly \$500 million.

And unlike the more traditional economic development programs where there is a significant likelihood that the investment would have occurred even in the absence of the incentives, such is not the case with the CAPCO program. This is a direct result of the program criterion that mandates that the participating portfolio companies must demonstrate that they could not acquire the necessary capital via typical channels.

The CAPCO program appears to be one of the most effective and successful economic development incentives that the state of Missouri has enacted. Consider the following metrics:

- The programs has provided Missouri residents with in excess of 8,000 job-years of employment.¹
- Economic development generated by the program has led to gains in Missourians’ personal income of nearly \$500 million.
- The program has generated over \$180 million of incremental state and local tax revenue.
- CAPCO portfolio companies have attracted over \$1.25 billion of coinvestment and follow-on capital from other investors, or roughly \$24 of leveraged capital for every dollar of tax incentives provided.

While the CAPCO program has obviously demonstrated an ability to move capital “from Wall Street to Main Street,” create jobs and increase Missouri personal income, the quintessential point that must be addressed is whether the CAPCO program has been effective from a cost-benefit standpoint.

The answer is an unqualified yes. Additional state and local tax revenues attributable to the CAPCO program now total over \$180 million. Compared to the total cost of the program to date, this implies a current value cost-benefit ratio of 4.7 for total tax revenues and a ratio of 2.8 to 1 for just the state portion.

**Estimated New State and Local Tax Revenues
Due to the CAPCO Program**
(dollar amounts in thousands)

	1997	1998	1999	2000	2001	2002	Total
Total State & Local Taxes	\$0.0	\$8,137	\$17,311	\$41,083	\$59,194	\$46,433	\$180,097
State	\$0.0	\$4,890	\$10,404	\$24,690	\$35,574	\$27,905	\$108,235
Local	\$0.0	\$3,247	\$6,908	\$16,393	\$23,620	\$18,528	\$71,862
Tax Credits I	0	\$4,540	\$7,035	\$7,035	\$9,808	\$9,808	\$38,226
Cost/Benefit Ratio	0	1.8	2.5	5.8	6.0	4.7	4.7
State	0	1.1	1.5	3.5	3.6	2.8	2.8
Local	0	0.7	1.0	2.3	2.4	1.9	1.9

¹ Job-Years are calculated as direct jobs created, multiplied by the number of years the jobs existed. No multiplier was used to account for indirect job creation.

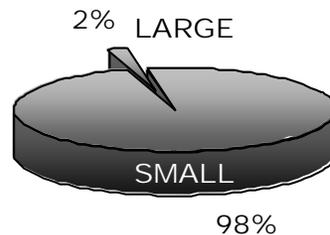
Even during the period of economic instability that we have witnessed over the past three years, the Missouri CAPCO program has performed exceptionally well. And like a new hit show, its success has even spawned state-sponsored spin-offs.

The strongest selling point for the CAPCO program, however, is its long-term potential. At a time when productivity gains and foreign competition preordain the continued decline of the industrial sector, a new vehicle is needed to assist the next generation of growth industries. A program like the Missouri's CAPCO model, combining the ability to attract outside capital coupled with the business expertise of the general partners, has a real potential to play a very significant role in this evolution.

Certified Capital Companies and State Economic Development

Probably one of the most remarkable but least publicized aspects of the U.S. economy is the role played by small business. While giants, such as Wal-Mart, Boeing and Microsoft, receive vast amounts of attention, smaller firms tend to be ignored — not only by the media but also by the state agencies that are responsible for promoting economic development. Although this oversight may be understandable given the “faceless” nature of small business, the importance of the latter to both the national and the Missouri economy cannot be over emphasized.

U.S. Business Firms
by Number of Employees: 2002



Source: U.S. Department of Commerce, Bureau of the Census

Small business, defined as firms with fewer than 100 employees, accounts for nearly 98 percent of all U.S. companies. Total employment by these firms represents 36 percent of all jobs. More importantly, small business accounts for nearly one-third of all U.S. sales and payrolls. As one would expect due to the higher concentration of manufacturing in Missouri, small business represents a slightly smaller portion of the state economy. Even so, more than 95 percent of all companies in the state have fewer than 100 employees, account for more than 35 percent of all jobs, and represent 30 percent of total payrolls.

One shortcoming of using the Census Bureau data is that they present only snapshots in time and, as such, fail to reveal the dynamics of small business. By definition, all businesses begin small. The unsuccessful either stagnate or die. Successful ones expand and grow. For example, Birch Telecom and Savvis Communications, two of the firms used in this study, each had fewer than 20 employees in 1997, placing them in the under 100 category. Five years later, Savvis had 700 employees and Birch had nearly 2,000.

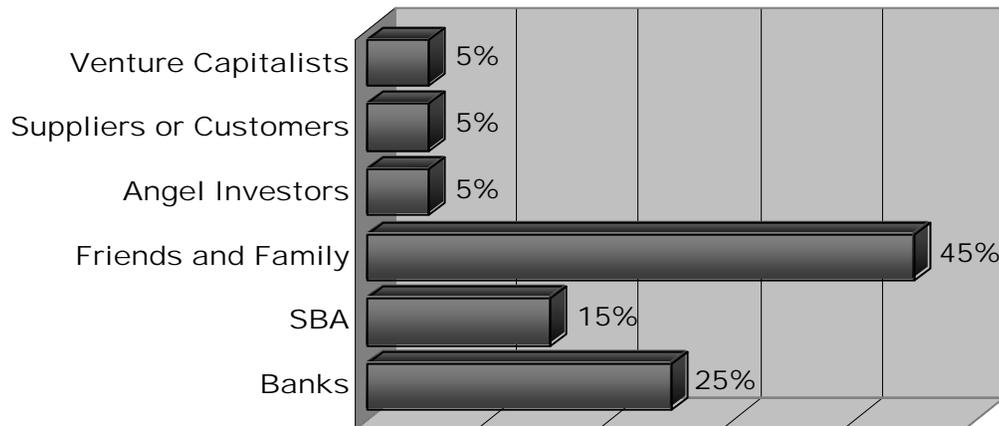
Given the tremendous importance of small business to the economy, it is remarkable that so few of the state-sponsored programs designed to stimulate economic growth are directed at assisting smaller firms. In Missouri, for example, out of the 21 tax incentive programs designed to encourage investment and job growth, only four of the programs are directed primarily at small business. More significantly, only one of these, the Certified Capital Companies Program, has ever been funded at a level sufficient to have a noticeable impact. This lack of support is even more inexplicable given the dynamic potential of small emerging businesses and the special problems

that are unique to these firms — in particular, a lack of specialized managerial expertise and access to external sources of funding.

By their very nature, small firms will typically not possess the broad array of specialized managerial talents that are available to larger, well-established firms. The scope and degree of the managerial skills of these smaller companies is usually limited to that of the principle owners. In a very few instances, this level of experience may be adequate. In most cases, however, the owners will lack the broad variety of necessary training or experience that is essential to success. Indeed, in conjunction with the lack of adequate funding that is also typical of small business, the absence of necessary management skills accounts for the high failure rate among these firms.

The other crucial ingredient that is vital to the success of any business is the ability to attract sufficient capital investment at a reasonable cost. For large, well-established companies this is usually not a problem. These firms have direct access to capital markets. Because they have a performance history, they also have an established credit rating that permits them to borrow at interest rates commensurate with their assessed risk. A 10-year investment grade corporate bond, for example, would be priced at or near 5.4 percent, or only 130 basis points above that of a 10-year treasury instrument. Large companies that are traded on open exchanges also have the ability to issue equity or other convertible securities to raise funds. Equity has two distinct advantages: it does not require any periodic interest payment and there is no required rate of return. Likewise, convertible debt that has the option to be converted to equity will also have a required rate of return of zero upon conversion.

Small Business Sources of Funding



The small business firm faces a much different spectrum of financing alternatives. The largest source of funding is friends and family, followed by banks, the Small Business Administration (SBA), suppliers and customers, angel investors and venture capitalists. The best borrowing rate available is an SBA loan. The rate on these loans is equal to the prime rate plus an interest rate spread and a loan guarantee fee. While the guarantee fee, which currently runs about 2.6 percent of the amount borrowed, can be amortized over the life of the loan, this increases the total repayment amount.

At the current time, the SBA loan rate is approximately 6.75 percent, or over 130 basis points, higher than a loan for an established large company. It is important to note that this is the best-case scenario for a small business. Loan rates for small firms that do not qualify for a SBA loan will be considerably higher, with some in excess of 20 percent.

Small businesses face much higher financing costs for several reasons. First, the level of investment risk for small emerging firms is high. By definition, they will have a very short track record, thus making it difficult to assess the likelihood of their long-term success. Second, traditional capital markets will usually be unwilling to spend the time and effort necessary to perform a proper evaluation of these firms due to the high cost of simply acquiring the necessary information about their earnings potential and concomitant risk. This latter point is extremely relevant, especially in light of the potential for growth by small emerging firms. Indeed, for some of these firms the potential rate of return will be sufficient to justify the investment even given the larger associated risk. However, if these facts are unknown, the traditional capital markets will not be a source of funding.

From a social vantage point, it is likely that the combination of these factors will lead to a less than optimal level of investment in small businesses, particularly those engaged in research and development. As previously mentioned, small firms will typically lack the specialized management skills necessary to function efficiently. This will be especially relevant for companies involved in basic research. While the individuals in these firms may have all of the technical skills necessary to develop new and exciting products, they will most likely not have the necessary management skills to successfully market their product nor, indeed, the expertise to adequately protect their innovations from competitors or firms in other industries.

One program that addresses many of the challenges faced by small business is the Certified Capital Companies program that has been adopted in nine states, including Missouri. In essence, a CAPCO is merely a special type of venture capital fund. The CAPCO program has two distinct features that differentiate it from the private sector VC funds. The first is the economic development mission of the CAPCO program. This is, in fact, the sole objective of the program. The other distinguishing feature is that the initial seed money to establish the venture fund is provided by insurance companies. The incentive for their participation is the state tax credit against their insurance premium liability. While the establishment and endowment of the venture fund are integral components of the overall program, they merely provide the means to the primary goal of fostering state economic development.

This approach to economic development has many advantages that are not inherent in traditional state managed programs. The most measurable of these is the ability of the CAPCOs to generate additional investment funds from traditional capital markets. As previously mentioned, it is very expensive to acquire the necessary information to adequately analyze both the risk and profit potential of small companies. Under the CAPCO program, the certified capital company performs this required research, thus reducing these costs to other providers of capital funds. In a very real sense, the mere selection of a particular company to receive CAPCO funding acts as a signal to other potential investors that will validate additional investment of capital.

The other salient feature of the CAPCO program is that it brings the hands-on management expertise that is essential to the development of the small firms. This aspect is unique compared to other state incentive programs that cannot offer the day-to-day management that is required. It also explains why state programs that have been fashioned after the CAPCO program have had such poor success rates. Even if all of the other features of CAPCO could be transformed into a state-sponsored program, the program would still lack this most essential element.

A Brief Legislative History of CAPCO

In 1981, the recently-elected Louisiana Governor David Treen, who made economic development and fiscal reform the focus of his entire administration, created a High Tech Task Force that was staffed by Kevin Couhig, Assistant Secretary of Commerce for Economic Development. Belden Daniels, a renowned Harvard economist, was a paid consultant to the state senate and worked with the task force. Together they ultimately recommended a number of initiatives, including the creation of Certified Capital Companies (CAPCO's).

CAPCO was originally passed as part of a larger rewriting of the premium tax code in Louisiana, which provided for other premium tax credits, including a domestic asset investment credit. The program was initially very lucrative for fund managers. As a result, the governor, the legislature, the Department of Economic Development, and the early CAPCO's worked to modify the credit. At that time, the credit was spread over a 10-year period, matching the investment benefit to the state with the cost over a similar period.

As the program evolved, CAPCO's began utilizing this credit along with structured finance techniques to offer insurance companies a more attractive investment. This allowed the CAPCO's to raise increasing amounts of funds, and eventually led other states to emulate the capital formation model. Missouri was the first state to do so; subsequently, New York, Florida, Wisconsin, Colorado, Georgia, Alabama, and Texas have all adopted variations of the CAPCO model.

In Missouri, passage of the enabling legislation was supported by a broad coalition of business and community leaders, including the Regional Commerce and Growth Association (RCGA), the National Federation of Independent Businesses (NFIB), and various entrepreneurial groups and investment firms throughout the state. The initial enabling legislation was passed in 1996.

The Missouri CAPCO Program and How it Works

Probably the easiest way to explain the Missouri CAPCO program is to compare it with a typical venture capital fund. The latter has three elements.

1. The general partners of the fund—the individuals responsible for the management of the venture fund, the selection and management of the portfolio companies, and all other operations of the fund.
2. The investors in the fund—the individuals or companies who invest money in the venture fund, either as lenders or as limited partners. The investors have no management responsibility or authority.
3. The portfolio companies—the firms that receive investments from the venture capital fund.

Although the investment categories are somewhat amorphous, the venture capital investments may consist of either: (1) seed capital, i.e., start-up funding for a company that has yet to be formed or is just beginning operation; (2) expansion capital for an established company to assist with product development and delivery; or (3) “mezzanine” financing for more mature firms. The types of investment and the selection of the individual firms are based upon the specific expertise of the general partners.

In return for the investment, venture capital funds typically receive an equity share of the portfolio companies and membership on the board of directors, in addition to any financial return on its investment. The general partners also receive a management fee from the investors for the liabilities and responsibilities of managing the portfolio companies. The objective of the venture capital company is to increase the market value of the portfolio companies. Once this occurs, the company receives the return on its investment via an IPO, merger or acquisition. These proceeds are then either reinvested in the venture fund or distributed to the general partner and the investors.

Venture capital companies are examples of pure capitalism. That is, they receive no return on the invested funds unless the portfolio companies in the aggregate are successful. As a result, venture capital funds do not invest in a single company, but rather a number of firms, similar to the strategy of a mutual fund. This diversification not only reduces the overall investment risk, but also increases the probability of receiving the desired rate of return on the total portfolio. The importance of the need to diversify the investments is underscored by the fact that less than one out of 10 businesses will succeed and only a very, very few will be highly successful.

Venture capital has played a substantial role in shaping the U.S. economy. VC funded companies now contribute over \$1 trillion to gross domestic product, or more than 11 percent of the total output of goods and services. And while venture capital is most commonly associated with the high-tech sector—such as Intel, Apple, Dell, and Microsoft, to name but a few—it has aided a broad range of companies outside the technology sector including Federal Express, Home Depot and Boise Cascade.

A Certified Capital Company is merely a special type of venture capital fund. Like the typical venture capital fund, a CAPCO has general partners and investors who have the same roles as their private sector counterparts. Like the typical VC fund, the CAPCO also invests in portfolio companies and takes an active role in their management. And just like their private counterparts, the partners in the CAPCO do not receive any return on their effort or investment unless the portfolio companies are successful. This aspect is in sharp contrast with other state incentive programs that simply have to meet minimum employment or investment requirements to be eligible for participation.

There are, however, several differences and constraints that are unique to the CAPCO program. First, the program is designed specifically to promote state economic development. Second, the investors are insurance companies. These companies provide the vast majority of the monies needed to establish the venture fund. As a result of the strict investment criteria to which insurance companies are subject by state and federal law, they are effectively prohibited from investing in all but AAA-rated securities. The certified capital companies structure the investment to reduce the risk to the insurance companies, thereby reducing the cost of capital to the state.

Unlike their private counterparts, the CAPCOs also face additional state constraints with respect to how much they must invest, where they must invest, the size of the company and the amount of investment in a particular portfolio company. They also must file reports with the designated state oversight department and are subject to audits by state bank examiners.

Missouri-Specific Constraints

1. The portfolio companies must be in need of venture capital and unable to secure conventional financing.
2. The portfolio companies must be headquartered in Missouri and have a minimum of 80 percent of their workforce in the state.
3. Prior to the initial CAPCO investment, the companies must have no more than 200 employees and their annual revenues must not exceed \$4 million. For a business more than three years old, revenues in the last fiscal year may not exceed \$3 million.
4. Certain types of businesses are also excluded from participating, namely, those in retail trade, real estate development, insurance and professional services, such as attorneys, physicians and accountants.
5. The fund is also subject to specific timing constraints. At least 25 percent must be invested within two years, 40 percent within three years and 50 percent by the end of the fourth year. No distribution of profits is permitted until 100 percent of the fund is invested. These additional constraints are significant because they lower the potential rate of return that the fund can earn.

The Missouri CAPCO program actually consists of three separate rounds of capital formation and tax credits. The first round in 1997 was limited to \$50 million, as was the second round in 1998. The final round in 2000 was limited to \$40 million but

restricted to certain geographic regions, i.e., those classified as “distressed” communities.

The state’s participation in the program is limited to the reporting requirement contained in the enabling legislation. It is important to remember that the certified capital companies do not invest state funds nor do they receive any tax credits. The latter accrue directly to the investors and are provided to facilitate the investment of private funds for the purpose of economic development.

The incentive for the insurance companies to provide this funding is the tax credits that they may take against their state insurance premium tax liability. Unlike their non-financial corporate counterparts, insurance companies are not liable for the state corporation income tax. Instead, they pay what is known as the insurance premium tax, a levy of two percent on the net premium income of the company. Because most state incentive programs were originally designed to provide credits against income tax liabilities, insurance companies and other financial institutions were ineligible to participate. The CAPCO program was one means of leveling the playing field in this respect. But more importantly, it provided a vehicle for utilizing a previously untapped source of investment funds that could be funneled to small emerging firms.

Major Missouri Tax Credits (in dollars)

Credit	2002		2003	
	Amount	Share	Amount	Share
Historic Preservation	\$42,979,400	15.6	\$46,737,000	13.2
Infrastructure Development	\$10,250,900	3.7	\$36,750,000	10.4
Low Income Housing	\$27,754,600	10.1	\$28,129,300	8.0
Brownfield Remediation/Redevelopment	\$6,908,400	2.5	\$19,400,000	5.5
Enterprise Zone	\$18,480,800	6.7	\$18,440,000	5.2
New Job Training	\$8,650,800	3.1	\$15,000,000	4.2
CAPCO	\$12,502,696	4.5	\$13,300,000	3.8
Neighborhood Assistance	\$9,626,300	3.5	\$12,555,000	3.6
Affordable Housing	\$7,811,700	2.8	\$9,000,000	2.5
Neighborhood Preservation	\$3,975,900	1.4	\$9,000,000	2.5
Qualified Research	\$1,995,700	0.7	\$8,500,000	2.4
Business Use Incentives BUILD	\$4,301,000	1.6	\$7,508,900	2.1
Business Facilities	\$7,891,000	2.9	\$6,525,000	1.8
Transportation Development	\$1,735,500	0.6	\$5,700,000	1.6
Youth Opportunity	\$3,350,800	1.2	\$4,050,000	1.1
Rebuilding Communities	\$2,332,200	0.8	\$4,000,000	1.1
New Enterprise Creation	\$4,165,500	1.5	\$3,580,800	1.0
Development Tax Credit	\$431,600	0.2	\$2,340,000	0.7
Other Credits	\$99,918,500	36.3	\$103,008,700	29.1
Grand Totals	\$275,063,296	100.0	\$353,524,700	100.0

Source: Missouri Department of Economic Development

The accessibility to Missouri state economic incentive programs has become considerably more liberal in recent years, especially for insurance companies and other financial institutions. Prior to 1993, for example, the only tax credit available to insurance companies was for the Neighborhood Assistance Program. Insurance companies are now eligible to participate in nearly two dozen of the Missouri programs. While the CAPCO tax credits account for approximately one-third of the total credits claimed by insurance companies, they represent less than four percent of all state credits. It should also be noted, that even in the absence of the CAPCO program, there would most likely still be an equivalent revenue loss to the state as insurance companies simply shifted investment activity into low-income housing, historic preservation or other available programs.

Compared to other tax credit programs available to taxpayers to offset tax liability, the CAPCO credit is proportional to the amount of capital mobilized. The present value of a CAPCO credit is approximately 60-70 percent. This is quite modest compared to over 120 percent for combined state and Federal LIHTCs. It is roughly on par with the capital tax credit (50 percent) and combined state and Federal Historic tax credits (50 percent).

A Sample CAPCO Structure

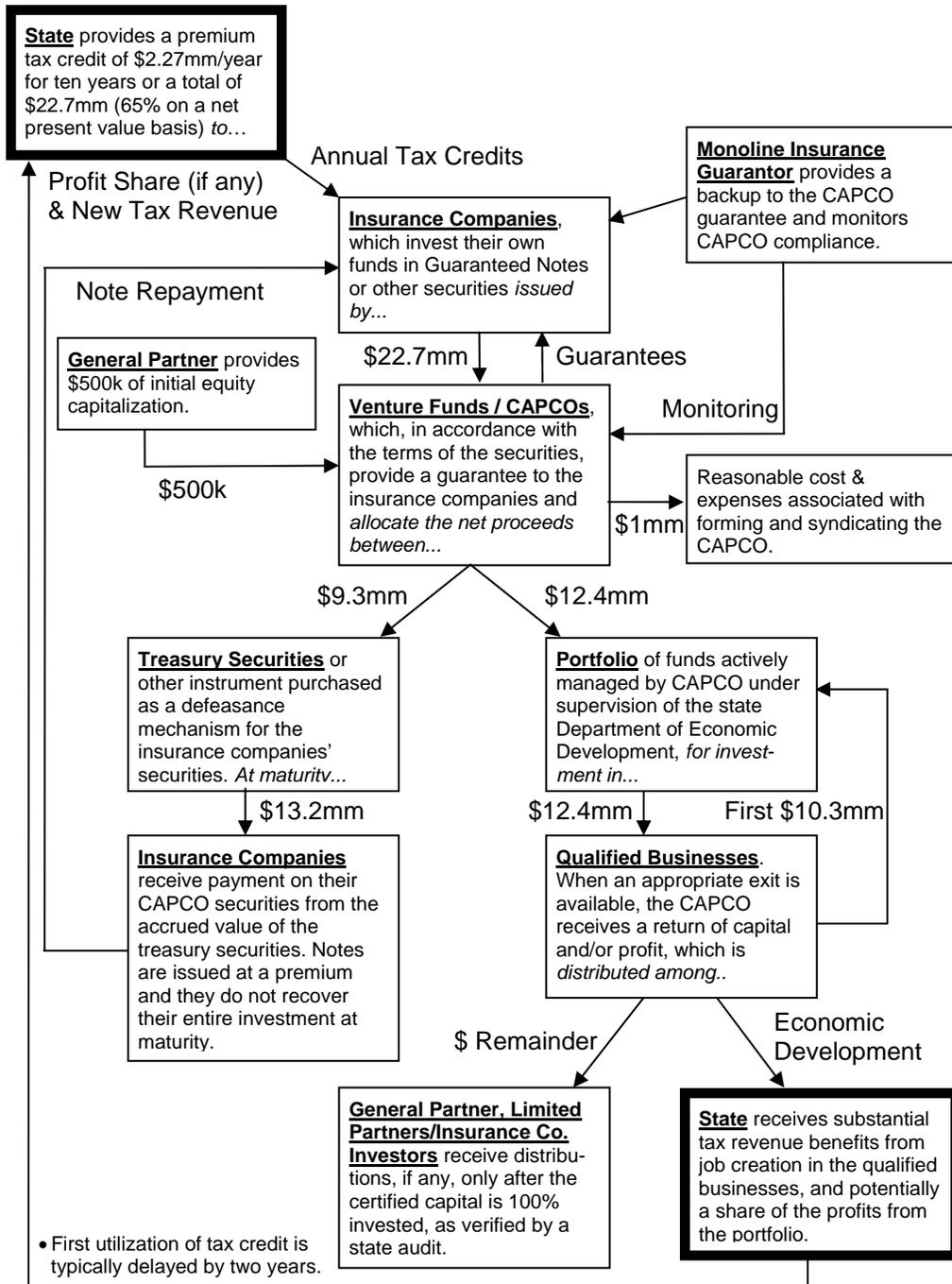
It should be noted that there is not a standard structure for a certified capital company. The critical element is the need to provide a mechanism that, in essence, guarantees the funds invested by the insurance companies. This is necessary due to the extremely strict limitations imposed on insurance companies by both states and the NAIC. Because these investment guarantees can be established in more than one manner, there is no single model that depicts how all certified capital companies are structured.

The flow chart on the following page depicts one variation of how a CAPCO program can be structured. While it is detailed due to the myriad of constraints involved, it provides a reasonable schema of how the program works. Advantage Capital provided the specific outline and numerical data for this section.

First appearances to the contrary, the flow chart is actually not as complicated as it first appears. In essence, this version of the CAPCO structure goes as follows:

1. The investors, the insurance companies, enter into an agreement with the general partners, the certified capital companies, to provide the monies for the venture fund.
2. Because the present discounted value of the tax credits is less than the amount of funds invested by the insurance companies, the CAPCO invests a sufficient portion of the fund in AAA-rated securities. This will permit the insurance companies to receive a guaranteed rate of return on their total investment that is commensurate with the rate that they would have received on more traditional investments.
3. The remainder of the funds is then immediately available for investment in portfolio companies. Over time, funds are reinvested so that, ultimately, 100 percent of the amount of certified capital is invested.
4. The participating parties, the state and the general partner and investors, are then entitled to negotiated distributions based upon the total fund performance. The state, however, receives substantial tax revenue benefits from the job and income creation generated by the CAPCO investments. The general partner and investors, on the other hand, receive no distributions from the fund unless the overall venture was successful. Further, no distributions are permitted in Missouri unless 100 percent of the fund has been invested.

Sample CAPCO Structure



Evaluating the Results: How Well Has the CAPCO Program Performed?

While there is often considerable debate as how to analyze the effectiveness of state economic development programs, there are two generally accepted approaches. The first utilizes classic cost-benefit analysis. The technique consists of determining the total costs and benefits of a particular program and then calculating either the ratio of benefits to cost or merely the net value of the attendant flows—benefits less cost.

Using the data provided by Advantage Capital and BOME/Gateway for just the first round of allocations, for example, this would consist of determining the cost to the state of the \$45.4 million in tax credits and then comparing this with the value of the additional jobs and investment directly attributable to the CAPCO program

The other approach is to analyze the opportunity cost of the tax credits and other incentives and to compare these costs with the additional tax revenues that can be directly attributed to the particular program. In financial terms, this method is analogous to a comparison of the weighted average cost of capital for the two alternatives.

Because of the complexities of either analytical approach, this paper will present only an overview of the two alternative techniques. However, even given this caveat, the results of the program are remarkable.

Due to time and data restrictions, the detailed cost and benefit estimates in the following analysis are based upon the investments of only two of the five Missouri certified capital companies, Advantage Capital and BOME/Gateway. Although this limits the analysis, it is worth noting that these two companies account for \$98.1 million of the total \$140 million authorized under the program. Aggregated investment and job creation through January 2000 for the entire Missouri program is available, however, in the document *The Certified Capital Companies Economic Development Innovation: Missouri's Experience to Date*, prepared by the IC² Institute of the University of Texas at Austin.

The IC² analysis was performed prior to the dramatic stock market decline and broad economic slowdown of the late 1990s and early 2000s. However, it is remarkable that the CAPCO-backed companies still exhibited substantial job growth and retention during the economic decline. Typically, fewer than one in five VC-backed companies is successful over a 10-year horizon.

Cost-Benefit Analysis

The determination of the cost of the CAPCO program is fairly simple. On a cash-flow basis, it is merely the annual value of the tax credits claimed by the insurance companies that are the investors in the fund. For just Advantage Capital and BOME/Gateway, this amounts to a total of \$98.1 million over the 11-12 year redemption horizon, or alternatively depending upon the time period, between \$4.5 million to \$9.8 million per year.

An alternative to using a cash-flow basis is to compute the present discounted values of all the cash flows. This approach is particularly useful when the timing of the costs and benefits differ substantially, as in the construction of a dam, for instance.

On a present discounted value basis, assuming an interest rate of 5.0 percent, the value of the credits is only between 65-75 percent of the actual cash-flow value, depending upon how soon the insurance companies claim the credits. This yields a maximum cost to the state of between \$65.1 million and \$73.5 million based on a benchmark date of 1998.

Determination of the benefits attributable to a particular economic development program, however, requires many inputs and a much more sophisticated statistical technique. Typically, though, this reduces to the determination of the direct and secondary jobs and investment that result from the program, and the calculation of the attendant tax revenues.

Advantage Capital & BOME/Gateway Direct and Leveraged Investment (dollar amounts in thousands)

	Direct	Leveraged
Investment	\$52,400	\$1,255,000
Leverage Ratio		24.0

It is extremely important to note the impact and benefits of the CAPCO program are a function of not only the direct investment tied to the credits, but also the additional or leveraged capital that the program is able to attract. Indeed, this is the aspect of the CAPCO program that makes it unique among economic development programs. In the case of Advantage Capital, for example, this multiple is an astounding 93.7 if just the first round investment is used. For the two largest CAPCOs for all three rounds the ratio to date is 24.0 to 1. And while this level of leverage will probably not be realized for subsequent investments, the follow-on investment ratio has been at least a factor of 2 to 1 in all of the CAPCO programs nationwide. In this regard, it is significant to note that the leverage ratio for the two largest Missouri CAPCOs can never fall below 12.8 to 1, even if there are no additional follow-on investments.

Translating investment expenditures into output, jobs and payrolls necessitates the use of sophisticated economic models and multiplier analysis. While this is often viewed as an arcane or esoteric exercise, it is the most common and accepted analytical technique to evaluate the economic impact of a particular event, from the construction of a sports facility to the closing of a military base.

Utilizing the data for Advantage Capital and BOME/Gateway and conservative assumptions as to the investment impact, the CAPCO program has been extremely successful. The number of direct Missouri jobs created by the portfolio companies has grown from 233 in 1997 to 1,914 as of 2002, a net gain of nearly 1,700 new employees. The number of indirect, or leveraged, jobs attributable to the program is nearly as large, totaling over 1,500 in 2002.

Advantage Capital & BOME/Gateway Direct and Indirect Missouri Jobs

	1997	1998	1999	2000	2001	2002	Total
Direct	233	576	1,327	1,888	2,440	1,914	8,378
Indirect	189	472	1,161	1,472	1,998	1,569	6,861
Total	422	1,048	2,488	3,360	4,438	3,483	15,239

Just as important as job creation is the attendant income flow that is generated by the CAPCO investment. It is this increase in personal income that spawns the concomitant growth in state and local tax revenues. In the Advantage Capital and BOME/Gateway example, direct personal income attributable to the program has grown from \$7.0 million in 1997 to \$62.0 million in 2002. Total income generated by the program, which includes secondary income due to multiplier effects, has increased from \$12.8 million to \$111.6 million over the same period. Or more succinctly, the Advantage Capital and BOME/Gateway portion of the CAPCO program, by itself, has added over a quarter of a billion dollars to total Missouri income in a five year period.

While job and income growth are the key elements of all economic development programs, the other essential feature of any such program is its ability to generate additional tax revenues. With respect to traditional cost-benefit analysis, this is usually the most crucial component because of the need to compare the program results with the opportunity cost associated with the foregone tax credits.

Advantage Capital & BOME/Gateway State and Local Tax Revenues and Cost-Benefit Ratios (dollar amounts in thousands)

	1997	1998	1999	2000	2001	2002	Total
Total State & Local Taxes	\$0	\$8,137	\$17,311	\$41,083	\$59,194	\$46,433	\$180,097
State	\$0	\$4,890	\$10,404	\$24,690	\$35,574	\$27,905	\$108,235
Local	\$0	\$3,247	\$6,908	\$16,393	\$23,620	\$18,528	\$71,862
Tax Credits	\$0	\$4,540	\$7,035	\$7,035	\$9,808	\$9,808	\$38,226
Cost/Benefit Ratios							
State	0	1.8	2.5	5.8	6.0	4.7	4.7
Local	0	1.1	1.5	3.5	3.6	2.8	2.8
Local	0	0.7	1.0	2.3	2.4	1.9	1.9

As the figures in the above table demonstrate, the CAPCO program has also been very successful in this regard, generating over 3.3 dollars in state and local tax revenues for each direct dollar of investment. Using Advantage Capital and BOME/Gateway investments to date, this means that the estimated additional tax revenues generated by the program have averaged \$36 million per year on a cash-flow basis. Compared to the annual cost of \$9.8 million, this generates a total cost-benefit ratio of 4.7, or a net average annual benefit of \$26 million. For the state portion alone, the average cost-benefit ratio is 2.8 and average annual net benefits have been \$14 million.

One final point that is relevant when using the cost-benefit approach in situations related to tax credits is the problem of ascertaining the likelihood of the new jobs and investment in the absence of the incentive program. This aspect of the analysis is often overlooked in many cost-benefit calculations. In the case of the CAPCO program, however, these probabilities are known with certainty to be extremely small, if not zero, since the firms must be unable to secure other financing to be eligible for participation in the program.

Cost-of-Capital Analysis

An alternative approach is to compare the opportunity cost of the state tax credits with the rate of return on the invested funds. This is, more or less, a variation on the standard weighted average cost of capital model. The ROI to the state from the CAPCO funded investments is then compared to the opportunity cost rate of return assuming that the credits had been invested by the state. As with the cost-benefit model, this type of analysis requires many factors, some of which will not be known with certainty. It is prudent, therefore, to utilize the most conservative scenarios.

CAPCO Financial Model Advantage Capital and BOME/Gateway

	1998	1999	2000	2001	2002	Total
CAPCO-funded MO jobs	576	1,327	1,888	2,440	1,914	8,145
Net income	0	0	0	0	0	0
Corporate state income tax	0	0	0	0	0	0
Individual state income tax	567,920	1,341,350	1,956,500	2,592,234	2,084,649	8,542,652
Individual state sales tax	83,933	198,240	289,153	383,109	308,092	1,262,527
Total MO tax revenue generated from CAPCO investments	651,854	1,539,590	2,245,653	2,975,343	2,392,741	9,805,180
Total MO revenue sharing in excess of 15% IRR	0	0	0	0	0	0
Total MO capital generated from CAPCO program	651,854	1,539,590	2,245,653	2,975,343	2,392,741	9,805,180
Amount of MO tax credits invested in CAPCO-funded businesses	4,540,000	7,035,000	7,035,000	9,808,000	9,808,000	38,226,000
Total MO capital generated from CAPCO program	651,854	1,539,590	2,245,653	2,975,343	2,392,741	2,392,741
ROI to state from CAPCO-funded investments	14.36%	21.88%	31.92%	30.34%	24.40%	25.65%
Approximate rate of return for alternative uses of MO tax credits	5.54%	5.24%	5.37%	5.67%	3.10%	4.98%
"WACC adjusted premium" generated from CAPCO investments	8.82%	16.64%	26.55%	24.67%	21.30%	19.60%
Additional CAPCO return vs. State investment alternative	562,970	1,409,078	2,111,928	2,772,261	2,281,310	9,137,547

Assuming that none of the portfolio companies has yet to realize any net taxable profits, this analysis still generates a "WACC adjusted premium" from the CAPCO investments well in excess of 10 percent. The additional CAPCO return in dollar terms has been over \$2 million since full program start-up.

Comparison with Other Small Business Incentive Programs

Ideally, the effectiveness of any state incentive should be well monitored and reviewed on a regular basis. Unfortunately, the State of Missouri has been very remiss in gathering the necessary information to perform these audits. As a result of this oversight, the state has very few, if any, data that can be used to compare the relative effectiveness of economic development programs, especially those directed at small business. Because of this, the Missouri Office of the State Auditor has twice admonished state officials for their lack of diligence in this regard.³

In addition to the CAPCO program, Missouri has four other credit programs that are directed towards small business. These are the Small Business Incubator; the New Enterprise Creation program, which replaced the defunct Seed Capital program; the Community Bank program; and the Small Business Investment Capital program.

Because of the dearth of information about these programs, the only data available come from the state auditor reports and a report prepared for the Missouri Development Board by the Barents Group. The most striking fact about these programs is their low utilization levels. For instance, only four projects have been approved under the Community Bank program. One was for the construction of a manufacturing facility, another was for the funding of a venture capital company and two were related to supporting owner-occupied housing. The program total to date is \$1.3 million, of which only \$0.2 million has been redeemed. There are no statistics on the effectiveness of this program, but given the nature of the projects funded it would be negligible.

The Small Business Incubator, established in 1990, is one of the oldest incentive programs. Like the Community Bank program, its use has been limited. To date, only 23 taxpayers have availed themselves of this credit. The amount redeemed is only \$757,000. This is one of the tax credit programs reviewed by the state auditor. Because of the lack of data, the auditor's office was forced to simulate the economic impact of this business incentive using a credit value of \$84,000 over a period of 10 years. Because of the nature of the program, which in essence only subsidizes the office expense of very small businesses, the projected economic impacts were extremely small—maximum job creation was only three per year, and peak personal income growth was only \$107,000.

The Seed Capital Investment program, which has expired and been superceded by the New Enterprise Creation program, was another economic development program reviewed by the Office of the State Auditor. This program dates back to 1986 and

³ “As stated in a prior audit, department officials need to improve data capture and reporting at the project level. Unless project level data is captured, such as types of new businesses and jobs created, it is impossible to measure the economic and fiscal impact a tax credit project may have on state and local economies. Department officials did not provide this data when requested which limited the analysis of the program.”

Source: SAO Report No. 2002-033 issued April 29, 2002. Prior audit was SAO Report No. 2001-13 issued February 23, 2001.

saw considerable activity in the first few years of its existence. In a sense, this program was a type of state-administered venture capital program. The tax credits were available to any taxpayer who contributed to a qualified investment fund managed by a designated investment company. The fund proceeds were intended to provide seed capital or follow-up capital for commercial activities located in Missouri. To become a qualified fund, the managers must have entered into a contractual relationship with one of the approved innovation centers. The latter were then entitled to no less than 10 percent of any distributions from the qualified fund. Of the \$5 million in authorized credits, over 96 percent have been claimed. The very discouraging fact about this program is that absolutely no information was collected by the state or the innovation centers on its effectiveness. Since this program had the potential to generate a substantial impact, the lack of any supporting documentation casts serious doubts as to its actual effectiveness.

The two newest small business incentive programs are the Small Business Investment Capital program (SBIC), established in 1993, and the New Enterprise Creation Act program (NECA), which began in 1999. Both of these are patterned after the traditional venture capital model, thus making them very different from the typical state economic development program.

The purpose of the SBIC is to induce private investment in small business in Missouri. While it has some similarities to the CAPCO program, it is targeted at smaller firms and is restricted solely to broadly defined capital expenditures. The value of the credits associated with this program has ranged from 30-60 percent of the amount invested. The higher value is only available if the qualified business is located in a "distressed community." To date, nearly 80 businesses have participated in this program, none of which qualified for the higher credit amount. Unfortunately, as with the Community Band and Seed Capital programs, there are no statistics to measure its effectiveness, although an additional round of credits was authorized in 1999.

For all practical purposes, the New Enterprise Creation is a state-sponsored venture capital program. Like the SBIC, the purpose of the NECA program is also to induce investment in small, emerging companies. It is specifically targeted at firms in the life sciences and related information technology industries and is also restricted to companies in the seed or early-stage development cycle. The enabling act allows up to \$20 million in credits over a four year period, of which \$17 million have been authorized. There are no limitations on the type of investors, and there is no time table for investments. The value of the credits under the program is 100 percent of the amount invested and may be claimed in the year the contribution is made or in any of the following 10 years. The credits may be also be sold and transferred.

The program is administered by the Missouri Seed Capital Investment Board, which has selected a single fund manager. To date the managers have raised \$34 million in total funding, which represents 2:1 leverage factor. Eleven firms have received funding under the program, one of which also is a CAPCO portfolio company.

Because the NECA program is still in an early stage and has less publicly available data on economic development performance, it is difficult to accurately gauge its potential effectiveness. However, some elementary analysis indicates that NECA is a more expensive program than CAPCO, for reasons including the following:

- The credits are equal to 100 percent of the capital raised.
- All of the credits are redeemed during the first year of the program's operation.
- There is no statutory requirement that all the money be invested in Missouri.
- There is no state participation in either the principal or the profit of the fund. Rather, a share of earnings is directed to the purview of not-for-profit incubators, some of which have demonstrated abysmal results.

None of the programs compared to CAPCO in this analysis have any provision for participation, carried interest, or ownership interest for the State of Missouri. In fact, it is atypical for economic development programs to have any state participation. Normally the incentive is simply set at the level necessary to encourage the desired economic activity, and only the economic agents reap the benefit of their activity.