In Search of Spark Plugs

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Facing a severe and chronic need for more and better economic activity, we must first ask why. What is it that Central Appalachia is missing? Surely, as for any region, there are many issues to work on. But is there something systemic, something broadly in shortage, some specific thing upon which we might focus? This paper contends that the answer to that question is: yes, entrepreneurship.

The following logic chain leads to that conclusion:

- Any significant and durable decrease in poverty will require a large increase in private economic activity in diverse sectors; and
- since any such increase in economic activity requires a large number of new and growing enterprises; and
- new and growing enterprises require entrepreneurs to start them and steer them to success; therefore,
- poverty reduction requires significantly more entrepreneurial skill and effort.

It is an overused word, and to some takes on rapacious or saintly qualities, but this paper addresses it in a mechanical sense. We need more entrepreneurial activity if the region is to build more enterprises, diversify its economy and increase civic engagement. We must make the most of the entrepreneurs we have, bring more of them into the region and grow them at home. In other words, we must do all we can to increase entrepreneurial activity in the region.

This paper proposes establishment of a Spark Plug Institute (SPI) to build entrepreneurship through a combination of direct investment, assistance to investees and wide promotion of entrepreneurial activity. SPI would invest in development venture capital funds already at work, adding risk capital and talent, and would fund with grants a range of entrepreneurship development activities also carried out by others. It would begin with a capital base of at least $100 million from philanthropic, private and government sources.

Analysis

In the early years of development economics, natural resources were considered vital to development, a view that gave way to the worry that dependence on resource extraction is problematic. Others saw capital as key, or that technology or the policy environment and governance were central. All agree that an educated workforce is important.

But eminent development economist Albert O. Hirschman described the challenge very differently. Writing about developing countries in general, he contended that resources and abilities for development are available but they are “hidden, scattered or badly utilized.” He found the principal “deficiency (is) in the combining process itself.” In his view, the ingredients for development are present but latent, and he identifies the need for “binding agents” who turn such ingredients into new economic activity. He calls that central skill “the ability to invest.”[1]

Much theoretical attention has been given to entrepreneurs. Adam Smith was perhaps the first to write about their importance: "the undertaker of the work who hazards his stock in this adventure..."[2] The French word entrepreneur comes from this notion of "undertaker." Joseph A. Schumpeter identified the key to progress as innovation by entrepreneurs: "In any society, the rate of technological progress and so of economic development, depends greatly on the number and ability of entrepreneurs available to it."[3]

Entrepreneurs come in all shapes and sizes. Such people might build a major new business, but they also might start a small one, or a new nonprofit, or even just take on a special project like organizing the community to purchase and install new lights at their local baseball field so the kids can play at night. While economists might call these people "binding agents", it is more graphic to think of them as spark plugs.[4]

Hirschman's articulation comes closest to the rationale beneath the recommendations in this paper. He not only describes well the centrally important "ability to invest" but he addresses the question of how it is built.

> The ability to invest is acquired and increased primarily by practice and the amount of practice depends in fact on the size of the modern sector of the economy. In other words, an economy secretes abilities, skills, and attitudes needed for further development roughly in proportion to the size of the sector where these abilities are already required and where these attitudes are being inculcated."[5]

So, we find ourselves with a serious chicken and egg problem. Many development economists agree with Hirschman that entrepreneurship is built within a vibrant and growing economy. If so, how then does one build entrepreneurship in a chronically depressed economy? What to do if economic growth and development depend on entrepreneurship, but entrepreneurship depends on a growing and diversifying economy?

Why is this such a bottleneck? Can't entrepreneurs be hired to run new enterprises? To have a good chance at building a major new enterprise with a comparative advantage in its markets (meaning that its market position does not depend only on low cost production techniques) is a very challenging task. It requires a high degree of commitment and self confidence, goal orientation, careful calculation of risk, business skills (marketing, engineering, finance, production, research and development), the ability to admit failure and try another approach, and considerable tenacity and motivation. It also demands deep knowledge of the markets in which an enterprise will compete and networks of associates and contacts. Most of these skills and qualities come from experience. Starting a major new business is NOT something just anyone can do, or that someone can be "hired" to do.

A century of geographic isolation and dependence first on extractive industries and then on government transfer payments, has left the region with a chronic economic challenge. It is short of skilled entrepreneurs to build the needed diversity of new enterprises, and it is also short of the sort of economic environment in which such entrepreneurs emerge and build their skills. Entrepreneurs growing up in the region tend to leave for greener pastures and entrepreneurs growing up elsewhere are not likely to think of moving to Central Appalachia to start their new business. And this has been going on for many decades, if not a century.

Such comments can be seen as criticism of people living in Central Appalachia. They are not. Entrepreneurs are not inherently better or worse than others of a different bent. And there are many entrepreneurs in the region doing good and important work. But it is likely true that entrepreneurs are very mobile and tend to move to places most conducive to the success of their ventures, which means over the years more will move out of Central Appalachia than will move in -- a sort of insidious downward spiral.[6]

And there is a large cloud on the horizon in the form of changing comparative advantages of coal, oil, gas and timber as the world rethinks its use of these resources.

Each has seen its share of booms and busts, but we are now facing even larger shifts as the world is poised to reduce its concentration on hydrocarbon fuel sources. This will certainly change the ways in which resources are extracted and to whom they are sold and the price received, and will very likely reduce the competitive position of coal. But sustainably managed timber may well benefit from these concerns, as forests are likely to enjoy added value as "carbon sinks".

So, how does the region respond? How can we strengthen our foundation for strong and durable economic development and increase significantly our "ability to invest"? Simply put, in the face of a serious shortage of the key ingredient of talented entrepreneurs, we must both make more effective use of those we have as well as find and build more of them.[7]

Before delving into that proposition, here is a true story that illustrates the sort of activity that is necessary to a strong and diverse economy in Central Appalachia.

Tents Plus Plus

Two men were working in Tennessee for a closely-held manufacturer of camping tents, the kind you buy at Penny's or Sears. The owners were largely satisfied with current operations even though the market was growing very fast, order backlogs were high, and delivery dates were often missed. The two men grew restless and began casting about for a way to go into business for themselves. They were hungry for the opportunity to show what they could do, but could not find sufficient start-up capital. The Kentucky Highlands Investment Corporation (KHIC) of London, Kentucky, invested in this start-up in 1973, and production began in an abandoned grocery warehouse in McCreary County, one of the poorest in the nation.

KHIC bought $100,000 of common stock and $120,000 of subordinated debt, eventually investing more than $4 million. Interest rates, stock options and other terms for each investment were negotiated to meet the company's needs as well as maximize KHIC's returns. The company hit many bumps and snags along the way: a large bad debt to a customer in its first year, unionization, a fire in its plant, a complete loss of its original tent business due to import competition, and a split in the founding entrepreneurial team. But this is the nature of the beast, and why it is good to have an equity partner who can help with more than money.

In late 1977 the company launched another venture to manufacture sleeping bags. KHIC again furnished financial backing, purchasing $80,000 of common stock and $370,000 of subordinated debt. In 1986 the firm was sold to another large firm, thereby becoming a branch plant operation. KHIC was repaid its debt, made a new loan to the large firm, and retained its equity in the sleeping bag company shell which had been kept by the tent company.

A few years later this shell turned to manufacturing air bags for the auto industry, and KHIC invested a total of $95,400 in equity and $500,000 in debt. That company was also very successful and in 1992 was sold to another large firm. KHIC's loan was repaid, and it realized a gain of over $2.2 million on its four year old equity investment. In 1992, 20 years after it first invested in the company, KHIC sold its investment in the tent company for $800,000, a capital gain of $700,000.

By March 31, 1993, these three start-ups had generated cumulative gross sales of $276 million, and 4,700 person years of employment, all in a very remote county with no history of such enterprises. Further, a local supplier grew to add more than 100 employees directly in response to business from the three companies. And the two men who started the tent company were active in a wide range of community improvement projects. This all happened because two entrepreneurs found a source of capital and active assistance, and then set about pursuing economic opportunities, learning the hard way, changing strategies, winning some and losing others, all leading to serious direct economic activity and solid secondary effects.

The tent company is the deal that put KHIC firmly on the road of development venture capital, and illustrates well the theory of change beneath it: building a critical mass of activity and diversity in the local economy to the point where entrepreneurs and ventures begin to spin off from existing companies or form to serve them as new combinations and new ventures continue to emerge. That dynamic is a large factor at the root of places like Silicon Valley in California.

Unfortunately, it turns out that it is very hard to find entrepreneurs like the two who started that company. KHIC has never refused an investment because it was out of funds. Throughout its 40 years as an active venture investor focused on a portion of Appalachian Kentucky, its biggest challenge remains finding deals and entrepreneurs in which to invest.[8]

<u>The Spark Plug Institute</u>

Durable progress requires a large increase in economic activity accompanied by diversification into nonextractive enterprises which largely sell their products and services to customers outside of the region. And such growth and diversification requires a large number of enterprises. To increase the supply of people with the skills and motivation to form them, and to maximize what they are able to achieve, the Spark Plug

Institute would engage in three lines of work, all focused first and foremost on stimulating and supporting entrepreneurship:

1. Invest in regional "active equity investment funds" such as KHIC. Such funds would likely fall into the category of development venture capital, which looks very much like conventional venture capital, but is focused on a geographic area of economic distress and often takes higher risks (financing start-ups, for example). In other words, they bring entrepreneurial talent to the table along with risk capital, and entrepreneurial talent is the most important. The process boils down to searching for deals, assessing and negotiating the investment, and then working with the entrepreneurs to achieve success. As the region boasts only a few such groups now doing this work, SPI will likely help create new ones as well as invest in those funds. SPI would likely invest $5 million to $10 million each in six to 10 such funds in its first five years, and provide other assistance to them as appropriate.
2. Invest in sustainable resource development. While there are many questions about the long term costs of extracting and burning fossil fuels or of cutting timber, the country is surely going to be using them for some time to come. It makes little sense for the region to turn its back on them entirely as these are among the few sectors in which entrepreneurs are now most active in the region. Rather, we should seek to increase economic activity around resource development in which the most environmentally responsible methods are used. Timber presents a new opportunity as sustainable forest management is likely to see an increase in its competitive prospects. SPI would establish an investment

fund to back such resource development efforts, and might invest $20 million to $30 million in this way. They would have the large disadvantage of being extractive enterprises that do not typically present as many economic development benefits as other industries, and the even larger disadvantage of not helping to achieve economic diversification. But they have the very large advantages of being available for investment right now, and offering a strong possibility of significant new economic activity.

3. SPI would fund others to engage in aggressive entrepreneurship development strategies. It would provide grant funding from its own resources as well as “regranting” relationships established with other funders, and it would likely make low-interest loans to those programs that provide capital to the entrepreneurs they work with. Such activities include programs like Junior Achievement and others that introduce high school students to business, coaching programs such as the Kentucky Entrepreneurial Coaches Institute, business incubators, angel networks, microfinance and training for microentrepreneurs, community loan programs that support civic enterprises (such as the ball field lights mentioned above), and work with regional higher education institutions on entrepreneur education and commercialization of research products. While these strategies will not lead to much investment activity in the short term, they promise to build the supply of entrepreneurs in the long term. Activities of this nature in the region have grown considerably in the past decade and they likely contain many lessons and much experience upon which to build.

SPI would be a social investment "fund of funds" cum grant making intermediary focused on Central Appalachia. The region already contains some venture capital and equity-oriented funds and other institutions dedicated to these goals. However, very few of them possess a critical mass of resources and most work in a fairly small geographic setting. The region could well use much more of this work. SPI would use loans, investments and grants, and provide cross learning and evaluation opportunities for its investees and grantees.

This is a 50-year strategy and will require a large base of financial capital. And it is crucial to understand that while this will be an investment strategy, it will not be commercially profitable. SPI's capital must come only from sources that value the economic development that will result. Based on the experience of development venture capital groups, SPI would be doing well to cover its capital losses and operating costs with its investment earnings, let alone to earn a surplus. For one thing, development venture capital does not restrict its investments to only those with potential public stock offerings and high earnings multiples. KHIC would not have made the tent company investment if it was a profit maximizing venture capitalist. So, the level of investment gains is lower for a development venture capital outfit. Further, it would also likely incur operating costs double that of its commercial counterparts because bringing entrepreneurship to the table is its central contribution and is quite expensive. This is, after all, not a commercial investment challenge, but a development challenge motivated by potential public benefit.

SPI should start with at least $100 million of equity and debt, mostly from private sources, and could be a nonprofit or for profit company, or some combination thereof. Several factors are important to consider when designing its capital structure.

1. It must be able to tolerate a net capital loss. This activity will not be profitable, and it is not reasonable to demand it be so. Investors in SPI will value its social achievements and tolerate some level of capital loss. This is similar in concept to the way institutions such as the Ford Foundation view their social investment programs for which they anticipate a net capital loss of 10 or 15% of the investments made, and count such investments as successful if they achieve their social goals.
2. $100 million is likely a bare minimum. In its first several years, SPI will not yet be seeing significant investment returns and will struggle to meet its operating and grant budgets. While some of those costs might be funded by grants from foundations or government, it is important that SPI have sufficient resources of its own to mount the strategies it is charged with. $250 million would be closer to the level needed to do that, but is probably difficult to raise until SPI proves itself. Perhaps the goal could be $250 within 5 or 7 years, but with an initial target of $100 million.
3. Of this initial capital base, a large portion should be in the form of equity. This could be supplied by private foundations interested in the region, likely in the form of recoverable grants. The balance of the capital would be in the form of concessionary debt such as program related investments and other forms of social

investment. This debt could be structured to tolerate differing repayment terms and levels of risk tolerance.

4. As noted above, private foundations are a likely source of capital, but SPI would also find interest among regional corporations and utilities that would benefit from regional investment and growth. State and federal government sources would also be tapped.

Why build a new institution? Why not urge foundations and governments and nonprofits to fund and manage such programs? First, much of the investment and entrepreneurship development activities would be carried out by existing groups. Second, the issue of entrepreneurship is so central to regional development, and will require decades of work, that a dedicated institution with a large balance sheet is necessary. Funding, business, investment, political and other key relationships must be built into this strategy, and a dedicated institution of size and scope has the best chance of forging them.

When a challenge is overwhelming, we talk of the need to establish a beachhead, a smaller place to conquer so that the effort may be expanded and sharpened and reinforced until the battle is won. Surely economic distress in Central Appalachia qualifies as overwhelming, and we might as well throw chronic into the mix. For a long time now this region has faced the most severe poverty and dependence in the country, and progress, while evident, has been sporadic and slow. SPI could be a new beachhead, an institution dedicated to stimulating entrepreneurship and investment in the region.

Two ingredients would advance the development of the Spark Plug Institute. First, would be a small planning grant ($250,000 or so) to put it all down on paper, marshal evidence for its key assumptions and rough out financial projections. As a part of that process, a small group would be formed of widely respected regional actors who are interested in helping to design and develop the initiative. That could quickly be followed by formal presentations to potential capital sources.

Conclusion

This paper argues that significant and durable economic development will not be realized in Central Appalachia unless it builds its supply of entrepreneurs and investment institutions dedicated to investing and working with them at every stage of their venture formation challenge.

In the larger economy, markets are always changing and new opportunities emerging, and our region has much to offer in taking advantage of them. But we do not do so often enough. New ideas or opportunities are not worth much in the abstract. Renewable energy, arts or adventure tourism, ginseng, local food systems -- none will yield much without strong entrepreneurs in the middle of it all.

This is only one of many targets that might be chosen. This paper does not claim it is the most important thing, but it does claim it to be a central thing. Nearly all activities in pursuit of economic or community development involve the building and growing of new enterprises, one way or the other. That process is severely constrained in the face of a severe shortage of people skilled at that very function.

We know that this investment approach can be effective in Central Appalachia. KHIC pioneered the strategy and has been investing in this way for more than 40 years. Its track record inspires confidence that equity strategies are worthwhile. And KHIC learned a very important lesson, which lies at the root of the design of SPI. Throughout its history, it has always been able to aggregate large amounts of investment capital, but it quickly found that its challenge would be in finding places to invest it, illustrating this paper's contention that the principal challenge to new economic activity in Central Appalachia is the shortage of entrepreneurs, a bottleneck constraint in its "ability to invest."

To return to that chicken and egg problem noted at the beginning of this paper, it is by finding entrepreneurs and investing actively in them that we will strengthen the region's "ability to invest." Like the famous route to Carnegie Hall, the answer is "practice, practice, practice."

The good news is that we know how to do this. It is only now to do it.

[1] Albert O; Hirschman, The Strategy of Economic Development, pp 10 and 25.

[2] Smith, Adam, An Inquiry Into the Nature and Causes of the Wealth of Nations, The Modern Library, 1937 (orig. 1776), page 36.

[3] Higgins, Benjamin, Economic Development, 2nd Edition, Norton Press, NY, 1968, pg 150.

[4] Thanks to Hal Williams of The Rensselaerville Institute (TRI) in New York for this wonderfully expressive term.

[5] The Strategy of Economic Development, pg 36.

[6] Vivek Wadhwa, of Duke University, notes that 52% of Silicon Valley start-ups were founded by immigrants, up from around a quarter ten years ago. In all, a quarter of America's science and technology start-ups, generating $52 billion and employing 450,000 people, have had somebody born abroad as either their CEO or their chief technology officer. The United States of Entrepreneurs. The Economist, March 14, 2009.

[7] This paper makes the assumption that the region is chronically short of entrepreneurs willing and able to start significant new enterprises, but it does not present evidence that is actually the case. If an entrepreneurship strategy is developed for the region, such a case needs to be made.

[8] The author of this paper is not an objective observer of KHIC. He was its president from 1973 to 1981 when its development venture capital strategy was being put in place, but is no longer involved at all in its work. References to KHIC in this paper are from the author's own knowledge and experience, and this paper was neither cleared nor discussed with anyone at KHIC.