

REPORT FROM EMILIA-ROMAGNA

ASPECTS OF EMILIA-ROMAGNA AS AN ECONOMIC DEVELOPMENT MODEL REVISITED

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In *Aspects of Emilia-Romagna as an Economic Development Model* (2004) one of us reviewed recent literature about the economy of Emilia-Romagna and posed some questions that could best be answered by those actively involved in the Emilia-Romagnan economy. We spent a week in Emilia-Romagna in December 2005 attempting to answer those questions.

We were fortunate to have lengthy conversations with Paolo Onesti, Director of Demo Center; Walter Conti, CEO of LaCo, former mayor and member of the provincial legislature; Silvano Bertini, Head of Economic Development Policies for the regional government of Emilia-Romagna; and Alessandro Zampagna, Director of Centuria RIT. These people and others were exceptionally generous with their time. All of the observations, ideas and concepts in this paper arose from this visit, and mostly from these long discussions. However, the words and formulations are ours. Any inaccuracies are solely our responsibility.

We took extensive notes but did not tape our discussions. Quotations are therefore paraphrases and appear in Italics, not quotation marks.

This paper assumes familiarity with the Emilian model. Readers new to the topic may wish to review the earlier 2004 paper to get an overview.

1. ORIGINS OF THE MODEL

Emilia-Romagna is unique in several respects: the large number of entrepreneurs; the density of cooperatives in all forms of economic and social activity; the level of trust and cooperation among stakeholders; and the performance and nature of government. We asked everyone we spoke to, "Why here?" Here is some of what we heard:

- *There is a strong tradition of self-employment and an ability to find solutions.*
- *The war destroyed everything. The people rolled up their sleeves and rebuilt. This was the start of the dynamic economy.*
- *The original agricultural structure of the region was small sharecropping. Well-being depended upon productivity and good products. The tradition of cooperation in managing*

irrigation and food control carried over into industry. Some farmers were also small manufacturers. All these traditions were integrated into industry.

- ❑ *Maybe it's a north-south thing, not just in Italy, but also in places like Poland and Romania.*
- ❑ *The informal connection between enterprises.*
- ❑ *Social peace in the area. The population divides almost 50/50 between right and left. [This estimate diverges from election results that have been dominated by parties of the left.]*
- ❑ *The effect of networks is opportunity generation. This is not a strategic approach [of the kind that big companies might take] but is a relationship approach. Relationships and opportunities are more important than strategy. In our experience, it is better to start with opportunities, and then develop strategies to take advantage of the opportunities.*

These thoughts are consistent with the idea of social capital as playing a critical role. Social capital is a somewhat academic term; the people we spoke with are practitioners, not academics. While not everyone we spoke with had spent much time thinking about why Emilia-Romagna had become unique, all of them knew it was. They also did not think their model would necessarily work elsewhere. They were categorical in saying it would not work in Italy's South.

2. ELEMENTS AND CHARACTERISTICS OF THE MODEL

A. Flexibility, Entrepreneurship and Cooperation

Emilia-Romagna is known for flexible networks, but that understates the situation. The reality is that there is remarkable flexibility in policy, technology, product lines and organizational forms. All the stakeholders: government units and service providers are changing constantly to meet the challenges of the global marketplace. Continuous adaptation and transformation is an extremely important characteristic of the region and a major reason for its success.

Continuous adaptation has implications for anyone trying to study or write about the region. The structure and function observed today almost certainly will not be the structure and function in place tomorrow. These changes happen in a time scale of a few months to a few years. It is the capacity for flexibility that distinguishes the region, not the form that flexibility takes at any given time.

The core of the Emilian model is a large number of entrepreneurs. There is no policy or effort to make entrepreneurs. Their existence in very large numbers is a given. When size is required, a cooperative solution is the norm, not consolidation into a large traditional company. Cooperative solutions include co-ops *per se* but also various kinds of joint private enterprises (such as Dico Services), stakeholder partnerships (e.g. Centuria) and shared service providers, all of which will be discussed below. Public policy is intended to build on an economy of small firms and large cooperatives. It does this splendidly. But this policy is not intended for an economy with a mix of firms that is other than that found in the region. Public policy in the region starts with the

assumption of a culture of cooperation and entrepreneurship. This culture came first and was not intentionally created. What public policy and private actors do is analyze the situation of firms, determine what they think they need, and provide that.

Entrepreneurship is in the air. One worker/entrepreneur told us: *Even as a kid I could never imagine working for someone else.* The town of Ozzano, for example, has 11,400 people and 1400 businesses.

The special Emilian culture shines through owners' descriptions of what is required to make a business a success:

- *A sense of honor, a sense of trust... must approach business from a principled point of view.*
- *Homogeneous cooperation is an absolute. It is not enough to merely say you will cooperate. You have to think the same way and talk the same language.*
- *You have to cooperate. There is no other option. The market requires integrated solutions.*

The traditional definition of "industrial district" must be modified if it is to reflect Emilia-Romagna of 2005. Firms are less likely to work only in one sector. While originally a small enterprise may have specialized in supplying a specific industry with a particular kind of part, this is giving way to specialization in a particular production process. For example, a company that once specialized in machining parts for the agricultural machinery industry may now specialize in machining tight-tolerance cylindrical parts for any industry.

As a consequence of less sectoral concentration, the very close geographic proximity of firms is less significant than it was in the past. Horizontal integration is replacing vertical integration at the firm level and this in turn has resulted in collateral stakeholders' moving from a vertical to a horizontal strategy.

Vertical sectors may be likened to trees. Different trees all grow out of common horizontal "layers:" soil, water, organic nutrients, etc. A modern service center or a firm, for that matter, acts as a layer, providing its special knowledge to various vertical sectors.

The change in emphasis from a vertical sectoral approach changes the nature of industrial districts, but not completely. Industrial districts in Emilia-Romagna are now more like clusters. But it is important to note that technology, lore and experience are still very much "in the air."

The concentration of customer relationships in the hands of larger firms (as described in pp. 6-7 of the 2004 paper) was confirmed. Industrial districts are no longer characterized by firms of similar size. Small firms still predominate but no longer have the same freedom of action inherent in the original model.

B. Government

The role of government in the economy is significant and helpful. By government we mean Regional, Provincial and Municipal. (Italy is divided into regions that are the rough equivalent of American states. Provinces are subdivisions of regions and municipalities are within provinces.) The National government of Italy is not helpful. It has a long history of ineffectiveness, clientism and corruption, no matter what party is in power.

Just how is the Emilian government different in its approach to the economy?

1. Its interventions are research-based. Government studies what is happening in the local and international economy, especially in the areas important to E-R firms.
2. Government has a long-term economic horizon, explicitly thinking 40 years out. Most democratic governments have difficulty thinking beyond the next election. This does not mean that Emilian elected officials ignore politics; of course they don't. But economic policy is not held hostage to electoral politics.
3. Government in Emilia-Romagna is by and large non-ideological in its actions. Government here is principled, but is not hobbled by ideology, such as neo-political marketism or collectivism. The Emilia-Romagna regional government has been in the hands of the Communist Party or its successor for decades, yet no locality has been better at understanding and mastering the market. At the same time, there exists a high standard of social services. Ownership of the means of production is predominantly in private hands. The large number of small enterprises and of cooperatives means that this private ownership is widely distributed among the population and not concentrated. This is a true "ownership society" with many entrepreneurs and workers exercising quite direct control, not merely holding shares in a 401K.
4. Government has no "industrial policy" in the sense that it is meant in places like Japan or France. There is by and large no attempt to pick winners. Instead, government seeks to understand what enterprises are likely to need and offer that. This is not *dirigisme*. While the original Service Center model was a top down one, pushing concepts onto firms, this has been abandoned in favor of a mostly "demand-pull" model.
5. What is notable to the visitor is the degree of trust between business and government. Government is seen by itself and others as part of the whole life of the community.

Local government pays attention to small manufacturing.

Government is very important. All business people, from both the political left and right appreciate government attentiveness to business needs

Emilia-Romagna's business people are unusual in that they regard social services as productivity tools. Social services are viewed as critical for business success. Day care, elder care and full time schools allow workers, especially women, to work without neglecting family responsibilities. Public transit makes it easy to travel to and from work.

Many people in the United States and elsewhere in the world have developed a deep cynicism about government, a cynicism based on experience, history and reality. For those of us who are

cynical about the capacity and performance of our government it is at once heartening to observe government as it can and should be in Emilia-Romagna and discouraging because the reality of our home governments is so far from this standard. It is hard to see a clear path from where most governments are, to where the Emilian government demonstrates they could be.

Present regional economic policy related to manufacturing currently is intended to:

- ❑ *Stimulate the development of medium to high technology and reinforce reinvestment in research*
- ❑ *Provide incentive for universities and other research institutions to do applied research*
- ❑ *Foster the spin off of high tech companies from universities*

There are four instruments to do this:

- ❑ *Technical parks similar to incubators.*
- ❑ *Grants to place recent engineering graduates in small firms for one year. This gives young engineers practical experience, small firms access to skills they could not otherwise afford and links the latest state of the art university research to small firms.*
- ❑ *Venture capital fund and small grants (up to 50,000 euros) for startups.*
- ❑ *Financial support of R & D in existing companies*

Local governments also do provide direct economic benefits to small firms, e.g., local tax abatement for three years for start-ups and subsidized interest rates on loans.

C. Change and Flexibility in Firms

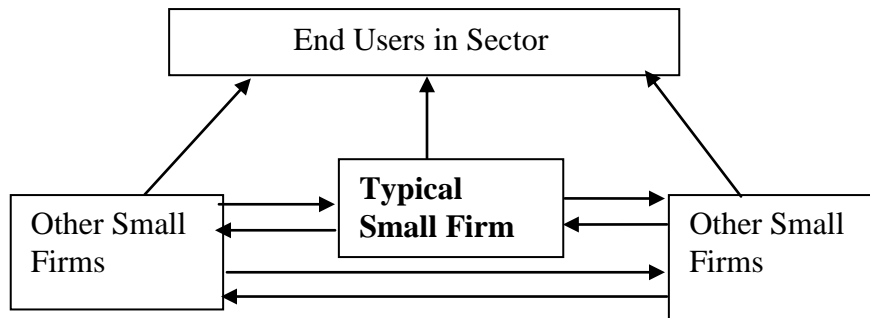
Companies need to compete across a range of products. The low-end is outsourced. Local production concentrates on high value added. Firms brand the entire line from low to high and guarantee quality.

The market has changed and firms in the region have changed along with it. This section will illustrate some of these changes.

The classic flexible network model is graphically depicted in Chart 1.

(In the charts the solid lines represent the sale of products. Dashed lines in Chart 2 represent minority ownership.)

Chart 1 **Classic Flexible Network Model from Viewpoint of Typical Small Firm**



An actual case will illustrate one of several possible models in 2005 (Chart 2). LaCo was started by a skilled worker who had moved up within IMA, a large firm in the packaging machinery industry. Walter Conti had also been a union steward and supervisor at IMA. Thirteen years ago he started his independent company. It has always been a supplier to IMA but also behaved in the classic flexible network manner. Today things are very different. Two worker/managers in LaCo are minority owners. About a year ago, LaCo's entrepreneur-owners sold 30% of the company to IMA, its largest customer. The majority owner acknowledged a loss of autonomy. He also described a requirement for more transparency, especially in financial and accounting matters. On the other hand, the move meant greater security because of the tighter link with the larger firm. Access to bank capital became much easier. The larger firm also encouraged the smaller to sell to third-party clients. *We can better look to the future and go after other clients more effectively. We can think bigger and take more risks.*

LaCo sells to IMA and to other large integrated packaging firms, and to some extent, other small firms. It also subcontracts to other small firms. LaCo also sells to firms outside the packaging sector and it buys low-value products from Poland and Romania. In addition to selling to traditional integrated firms (one of which is a large cooperative), LaCo sells to DiCo Service.

DiCo is another example of flexibility: a very clever entrepreneurial response to customers' need for integrated solutions. This is a firm founded and controlled by an entrepreneur, Vittorio Grandi, with small firms that are minority owners (of which LaCo is one). DiCo represents the small firms as a single provider of integrated packaging solutions. Matt Hancock describes DiCo Services as an "amazing"

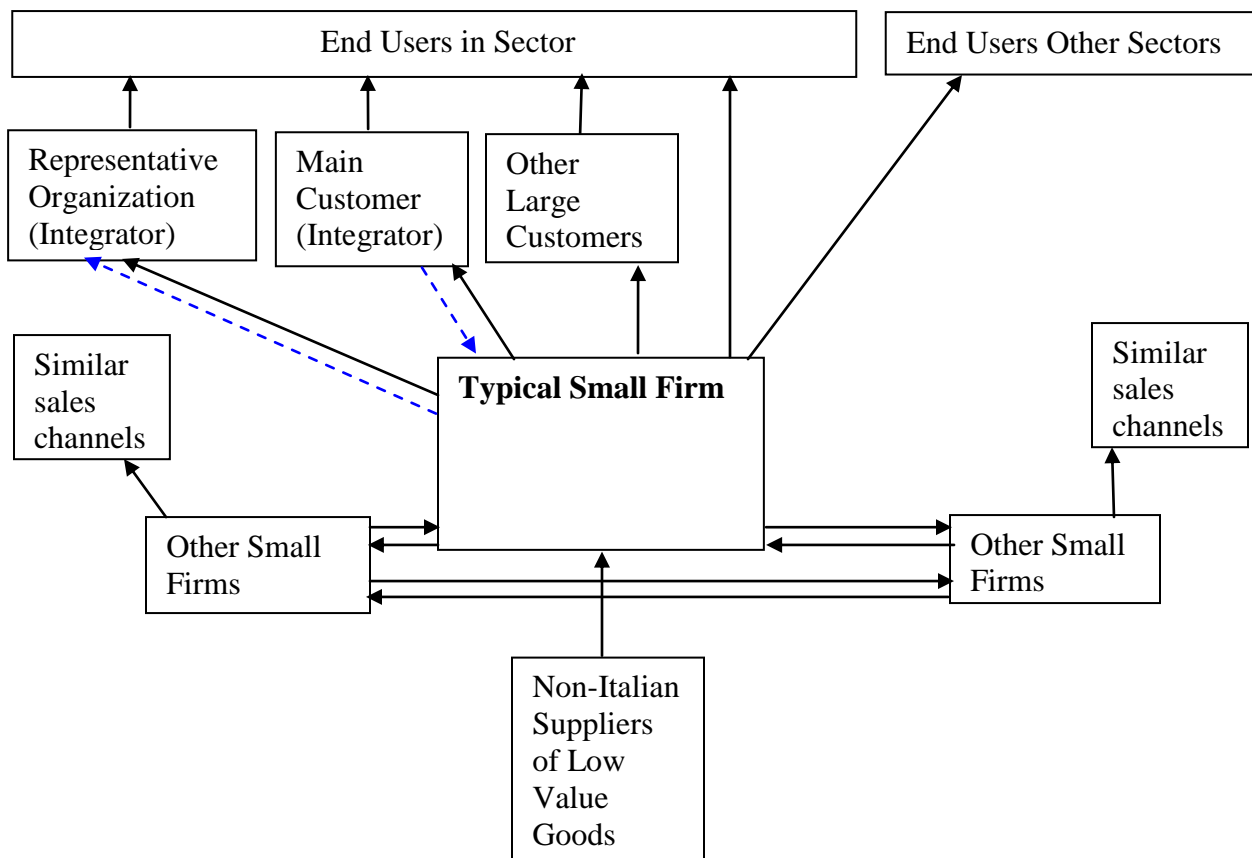
"Virtual enterprise" that is really a horizontal network of components suppliers in the packaging industry. DiCo is an effective example of how SMEs can compete with the big guys by organizing horizontally in a network to produce for the market. DiCo is essentially a small school for worker self-management. It's a network of 17 small firms (mostly around 10 employees) with a total of 150 employees. Thirty of these employees are owners [of their companies]. DiCo works with these 30 owners and trains them in management. Grandi's goal is essentially empowerment of these 30 worker-entrepreneurs...

This is also a highly effective completely private business incubator. Any time a new division develops inside DiCo service, or one of the member firms reaches a certain size, they spin it off into a new small firm, with the help of the mother firm and DiCo. The

new firm becomes part of DiCo. They are successfully spinning off both manufacturing and services, and have even opened up joint ventures, including an exact replica of DiCo in Romania. They are literally a factory for businesses.

[Grandi] is an old Emilian Communist Entrepreneur... He said... society [needs] to find a "new equilibrium..." He also speaks very articulately about the concept of "network" as it differs from "supply chain."

Chart 2
Today's Model from Viewpoint of Typical Small Firm



To many people schooled in the rhetoric of the cold war the concept of a “Communist Entrepreneur” may sound oxymoronic. Certainly there is nothing remotely “Soviet” about the Emilian system; nor is there any pretense of “from each according to his ability to each according to his need.” Successful owners earn more than workers. Those who supply capital are rewarded as in any market society. Emilia Romagna seems to be bourgeois, not proletarian. But there are vast differences between the market system in the region and typical contemporary market economies elsewhere. Capital tends to be invested in productive activities rather than

speculation. There is a preference for small enterprises. Size seems to be regarded as something the market demands rather than an intrinsic goal of entrepreneurs. The advantages of size can be achieved without a firm itself having to be large. Thus customer preferences for scale are frequently met by agglomerations of small firms or by coops, solutions which allow for diffuse ownership of the means of production. Spinoffs of new companies are seen as a positive alternative to growth of the parent firm. While owners seek profits, they also strongly believe that everyone in the community deserves a reasonable standard of living. Rather than being seen as a safety net, community services for all are seen more as a necessary part of a good society.

Perhaps an accurate description would be “Community Entrepreneur.” This model did not come about as a realization of a utopian vision. It grew organically out of communist values, not ideology (as the term “ideology” is understood in the U.S.). Both the individual and the collective are highly valued. In many ways we see Emilia Romagna as more capitalist than America. What might be a department or team of workers in a large company in the U.S. often is a small enterprise of risk taking worker owners in Emilia Romagna.

D. Service Centers

We asked everyone how important Service Centers were in explaining Emilia-Romagna’s success. There was agreement among those we spoke to that the specific model of Sectoral Service Centers, funded by the Regional Government and known as Ervet Centers, was of marginal importance in their early days and of little or no value in their later years. A Government official said to us:

Did Service Centers work? Probably they had a positive impact—perhaps 5% or 10%. The hard, very technical services were most important. In the past 10 years, they [Service Centers] have been nearly useless.

Not surprisingly, the Government no longer funds Sectoral Service Centers.

Service Centers might be an O.K. strategy for first generation entrepreneurs when they started. But we found that by the 1980’s, companies were much faster at acquiring information than were the Service Centers.

The Ervet Sectoral Centers are seen today as an ineffective, top-down model.

The Ervet Model was “I am a Service Center and have the knowledge and I push it down.”

The move away from the Ervet model does not mean that there are no Service Centers. Some have been transformed into providers of highly technical specialized services. Surviving Centers seek to pull knowledge from knowledge-holders on demand from their client firms. These services are provided horizontally, to firms working in any industry that requires a particular technical service. These services are paid for by the firms that use them. Examples include:

- ❑ Shared-use machinery or laboratories. Among DemoCenter’s offerings are a fluid power lab and laser sintering production machinery.
- ❑ Collaborative projects with universities, equipment makers, client firms and other stakeholders. These projects may address problems facing several firms or a sector, (pollution caused by the poultry industry; applications of nanotechnology to machining—both Centuria projects) or be a single company’s projects.

The Regional Government, while no longer providing general support to Service Centers, will fund specific collaborative projects. Funding is competitive.

Today, Service Centers provide some “awareness” activities, but these appear to be much less important than providing hard technical services.

Today’s successful service centers seem to have the character of secondary coops, even if that is not their legal organizational form.

Centuria is an interesting example of a successful Service Center in that it anticipated the abandonment of the Ervet model. Centuria was established by the municipal government of Cesena, with the ideal that it would be majority-owned by companies it serves. It began as an agricultural sector center, but is now a horizontal center, serving agriculture, machining and other sectors. Current owners of Centuria are 50 companies, 10 associations and 10 public institutions. Although the University of Bologna is not inside the center, it works with the center on 80% of Centuria’s projects. The center’s mission is to foster innovation through information networking and project planning. Centuria gets expertise from wherever it must: if it is not available locally, the Center looks nationally, and if it’s not in Italy, across the world.

The real globalization is knowledge.

Centuria is critical of new regional economic development policies that restrict funding to collaborations involving only local universities, as opposed to projects that are best executed with the aid of distant expertise.

Centuria’s “awareness” activities center on transforming information garnered from the many networks to which it belongs into a readable format for its members. Centuria also puts firms into contact with information holders via seminars, working groups and focus groups. These awareness activities account for about 30% of the budget and are funded by member dues.

The other 70% of Centuria’s work is fee-for-service projects, as described above. These are funded by the individual company if it is a project only for them. Projects that benefit multiple stakeholders may have grant funding.

When questioned about outcomes, Centuria’s Executive Director (whose doctoral thesis was on the evaluation of complex projects) said it was difficult to measure effectiveness. One measure is membership growth and the fact that few members have resigned. But it is difficult to measure competitiveness because so many factors go into a firm’s outcomes. Alessandro

Zampagna says frankly that Centuria's model would not work in a different context and that to his knowledge, Service Centers have failed when tried outside of the region.

Service Centers are important in the context of strict and sometimes fruitful private-government relation.

Companies join because they want to be part (of a local collaborative effort), not just for the services. They want to participate in something that is serving the region. Their motives are not just economic, but also social.

E. Business Associations

Business Associations also play an unusual and fundamental role in Emilia-Romagna's success. In addition to the types of interest representation common in the U.S., associations provide a wide range of administrative, accounting and legal services to their members. In the U.S., small businesses must master a host of skills unrelated to designing, producing and selling a product. In Emilia-Romagna, entrepreneurs outsource this work to the associations. These associations are very large and therefore have great capacity to offer quality specialized services. Associations also collaborate with government and others to provide training to small firms.

It is important to distinguish between Service Centers and Business Associations. The services provided by the Associations are regarded as vital and fundamental to the success of small firms.

F. Other Factors

Education has been an important part of economic success.

Strong technical universities are important. A specialized technical high school that provides both technical and practical education is important. This is financed locally [not by the national government as is the usual case in Italy].

Investments in continuous technical training, largely financed by the European Union, including lots of training for people over 50 years of age.

Organized labor within the region has a long-range approach to the economy. It actively supports long-range thinking, including in negotiations.

Others know far more about these two factors than we do, so we will not discuss Labor's role or education here.

3. LESSONS

1. Emilia-Romagna has had one of the best economic records in the world over the last 60 years, measured at the level of individual worker and at the level of the economy as a whole. While the

United States has a good record at the macro level, things are less bright at the level of individual worker. Currently, the U.S. economy is sustained by the willingness of consumers to go into debt in order to consume and the willingness of foreigners to lend to the U.S. This is not a sustainable model, especially when coupled with America's appalling educational performance. In Emilia-Romagna, there is every indication that the economy will continue to prosper. Firms and other stakeholders are adjusting continuously and rapidly to whatever challenges the world economy presents. But no one we spoke to is resting on his laurels: people are continuously seeking information and insight in order to stay ahead of the economic curve. No one claims the Emilian model will be sustainable in the future, but there is every reason for cautious, alert optimism.

2. An economy is only one aspect of an integrated, connected community. Emilia-Romagna is a marvelous place in most ways. Bologna is physically attractive, comfortable and convenient. People are on the street at all hours. People are talking to each other constantly, on the street, in restaurants, everywhere. This engagement with one another means many fewer passive activities, at least in public. We saw no television in a public place. The feel of Bologna is unique, and certainly vastly different from other parts of Italy. A few little things are illustrative. The card of an official who would elsewhere be called Deputy Minister here carries no title, but rather the description of his job as "Responsible for Economic Development Policies." At Centuria, the Director insists on a completely open email system. Everyone on the staff can read everyone else's incoming or outgoing emails, including those to or from the Director.

3. The manufacturing economy of Emilia-Romagna was not invented nor planned. It is a market economy. Once the practices and patterns of this economy emerged, government and other stakeholders cooperated and continue to cooperate, to keep the economy strong and flexible.

4. Emilia-Romagna is endowed with more entrepreneurs per capita than anyplace on earth. The United States does not lack for entrepreneurs, although it has fewer per capita than Emilia-Romagna. A difference is that in the U.S., entrepreneurs are encouraged by venture capitalists and business school professors to start firms with an "exit strategy" in mind. The business of these firms is making and selling the business itself. Entrepreneurs in Emilia-Romagna start firms to provide a useful product or service and to have independence. (Of course U.S. entrepreneurs can do the same if they are able to ignore the financiers and the professorate.) E-R entrepreneurs may come to develop a succession strategy late in the life of the firm, but they do not start firms to sell them.

5. Emilia-Romagna is a region. Its success has come in spite of an unhelpful national government and alongside different results in sister regions with vastly different characteristics. This demonstrates that regional, sub-national economic success can occur without the positive participation of national government and national stakeholders.

The government is involved with the economy but expects the market to create demand and decide what to produce. (Of course since E-R is a regional, not a national government, it doesn't have the same economic tools. It cannot, for example, adopt protectionism.)

6. Convention has it that there are two major models for Western industrialized societies. European Social Democracy offers individual security at the price of high taxes and high unemployment. The strong safety net is said to provide social peace but sap incentive. Government tends to go beyond regulation and actively seek to manipulate or interfere with the market. Anglo-American Neo-liberalism offers greater economic growth and low unemployment at the price of individual insecurity. There are low taxes and strong incentives to work, but also little social solidarity. There is also great inequality and declining social and economic mobility. These characterizations are only sketches and no nation is a pure example of either but the outlines of the conventional alternatives are clear

Emilia-Romagna offers a different model: Strong, comprehensive social and community services that are seen as allowing more people to work, not as sapping incentive; low unemployment; high economic growth, and social harmony. E-R demonstrates that it is not always and everywhere necessary to choose between growth/insecurity and weak employment/low growth/security. The region calls into question the very notion that a strong safety net saps incentive. Much of the basis of the arguments underlying political economy debates in the West is simply cut away. This means we must cast aside a lot of what we think about neoliberal and social democratic models. Knowing that traditional thinking is inadequate does not tell us what we should do--only that we must do some fresh thinking.

7. Emilia-Romagnans are highly cooperative. Businesses want to cooperate with each other and with other stakeholders, nobody forces them to. (In fact, as everywhere, leaders and officials in Emilia-Romagna have found that it is difficult, if not impossible, to force entrepreneurs to do much of anything. That's why top down activities have been rejected as policy.) Many techniques used in the region depend upon this characteristic. This deep "homogeneous" cooperation can sometimes be found elsewhere. But it cannot be imposed.

4. CONCLUSIONS

The conclusions we reached tentatively in 2004 have been reinforced. We have added some nuance and detail to the following restatement:

1. Social capital is a major factor in the success of Emilia-Romagna. This can be seen in the deep sense of trust and reciprocity that is everywhere apparent in the region. This is confirmed by the success of Emilian civil society and government, which have been successful in ways that both draws upon and creates social capital. A pre-existing stock of social capital allowed Emilians to seize the economic opportunities presented in the last half of the twentieth century. This was not the only factor in the economic success of the region. Certainly human capital was critical in developing a successful manufacturing industry. The remarkable flexibility that leads to continuous adaptation on the part of all stakeholders and the large number of entrepreneurs have been key factors in the region's success. The nature of the economic opportunities themselves (including the type of products demanded and customer preferences) were well suited to Emilian strengths.

This does not mean that high stocks of social capital are required for all economic success, only that it was and is an important part of Emilian success.

2. These and a variety of other factors interacted with each other to contribute to Emilia-Romagna's success. While none of these factors is unique to the region the precise combination, coupled with international events, resulted in a unique alchemy. The "Emilian miracle" is only exportable to the extent that it can be adjusted to fit the culture and circumstances of the importer. Place and culture matter.

It is difficult, although sometimes possible, to change the culture of a single company. It is unlikely that any intervention can succeed at changing the deep culture of a society. What we take away from Emilia-Romagna to apply elsewhere must be culturally appropriate.

3. The processes and structures utilized by Emilia-Romagna are mere artifacts of the region's deep culture: they were the correct tools for the confluence of external and internal circumstances at the time. These processes and structures are not the reasons the region is successful. Moreover the processes and structures are constantly changing. Simply copying processes and structures will not result in similar success elsewhere. Processes and structures must be appropriate for the culture of the community and the external circumstances of the time. Of course, elements of Emilian processes and structures may well be useful to other regions on a case by case basis. The validity of this point is driven home by the fact that Emilia-Romagna is itself changing its processes and structures as external circumstances change. In the end a successful economic development initiative must be custom tailored.

4. Innovation is a requirement for prosperity for Western Europe and North America. Cooperation, collaboration and networking are important practices that result in innovation. Much can be learned about these practices from Emilia-Romagna. While direct copying simply will not work, careful study and adaptation to local culture, human capital, and economic circumstances can yield benefits.

5. The United States in general and Chicago in particular must face up to certain challenges in adapting the Emilian model. The United States has reasonable levels of social capital although these are rapidly declining. But this social capital is of a different nature from that found in Emilia-Romagna. Our strong individualistic streak does not mean we can't cooperate: we do so all the time, but in very different ways and with a different worldview. (Not many businesses would enter into a vendor-customer relationship without a written contract, for example. But we often tend to see contracts as creating trust by establishing clear understandings in advance, not as a sign of distrust.)

We face a massive problem of ill- and inadequately educated citizens. This problem is dangerously near the point where our competitive advantages could be irretrievably lost. We are an ethnically, socially and racially heterogeneous society without much sense of solidarity. We too often resort to blaming others rather than assuming responsibility for our own lives. This tendency is often played out in litigation and politics. Our national, and in many cases state and local politics, has been captured by the kinds of particular interests that makes achievement of collective objectives difficult.

These challenges don't mean we cannot learn and borrow from Emilia-Romagna, only that we must bear these distinctions in mind as we craft sensible adaptations that will be useful here.

6. There are certain practices and policies that might be culturally feasible and readily useable in the United States. These include:

- Government grants to enable recent science and engineering graduates to be placed for a year in small firms. Currently Emilia-Romagna supports 900 engineers and firms in this way.
- Shared production machinery, laboratories, and other expensive facilities. This could take many forms: a secondary coop, joint venture, activity of a trade association, or organized by a unit of government or not-for-profit.
- Shared technical services on common problems. Again, this could possibly take many organizational forms.

Shared equipment or services must be determined by demand from firms.

Other practices might require much greater cultural adaptation:

- Members of trade associations could consider broadening their associations' role to include the provision of administrative and, perhaps, technical services.
- Research grants could be helpful, but it would be an absolute requirement that these not be awarded on the basis of politics. In addition, the grantors must not attempt to pick winners.