GLOBAL CONSTRUCTION INDUSTRY

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One of my impressions here is that the globe has gotten a lot smaller. It seems to consist now mainly of Europe and North America. Five years ago people were talking about the Pacific Rim. Ten, fifteen years ago it was the mid-East and Latin America.

I think the real globalization of the construction industry actually took place in the 1970's with that big Middle Eastern boom, when building there increased 5 times and overseas construction, especially for European countries, Germans and others, went up something like 10 times. Then in 1982 and 1983 that market collapsed, went back down to a fifth, although at the same time, the world international building, going by these ENR data, only went down by something like a half. So I think that some of the urging for companies to become globalized or internationalized seems perhaps to be primarily for latecomers.

The globalization that took place then was that a lot of construction firms ceased to be simply national firms which happened to have some sites abroad because they were building something special, military bases, or perhaps some special contract for the World Bank or building factories for their own national companies. But they came to learn in the course of the 1970's to be truly footloose, to work jointly with firms from other countries, especially in the Middle East to begin with, recruiting labour from the Far East, from Pakistan, Korea and the Philippines, and the Koreans came in (the Koreans having had their experience building overseas initially in Vietnam during the war there) and so then we began to get highly specialized firms. Some firms specialized in procurement. Some firms especially skilled in financial engineering were tied in with banks and government agencies.

The construction management and fast track working was also stimulated by the inflation that began to accelerate a great deal in the 1970's and, of course, some of the overseas building went on because some of the petrodollars were recycled in Latin America. Something strange is that none of this was predicted. In 1970 it was predicted that the biggest market would be in Latin America; the Middle East was not foreseen. In the late 1970's the collapse of the Middle East was not foreseen, just as the collapse of the whole Eastern European planned economies, that was not foreseen.

From Dr. Ravara, we heard that in Portugal now there is an opportunity and a need to associate with engineers and building firms in other countries, in order to learn a variety of things so that after that, the Portuguese building industry would be able to fly without a net, as he put it. So then the question comes up, once they have learned how to do that, what is there left for any global contractors to do in Portugal? Is this only a temporary thing? After all, the buildings are not part of international trade. They have to be built locally, primarily with local materials and with local workers, and so therefore what does a foreign firm really have to offer?

From Dr. Kibert we heard a lot of a kind of scolding of the American construction industry - a lot of it, I think, very well put and valid - for low research and development, especially for an adversarial spirit, and lots of things that ought to be done that are not being done and otherwise American firms would fall behind and would not really be competitive. But I don't think that adversarial spirit is going to be changed and the low research and development is partly due to that adversarial spirit. Sometimes they found when the Commerce Department would go to South Asia to try to explore possibilities and would go with some executives and technicians of American construction firms, afterwards they were supposed to write up their reports but most of these tended to be quite useless and uninformative because the firms considered what they had learned to be proprietary information.
And so one thing lacking in the United States and in Britain, I have the impression also, is some of that teamwork, working together, firms and governments and banks (what we call in Japan, incorporated) and the French have something similar. This kind of mutual trust and collaboration of firms and government is just simply not part of the American way of doing things. Under the Reagan administration, the industry hoped things would be different because there was just from Bechtel alone, there was Schultz, who had been president of Bechtel, Secretary of State, Wineberger, Secretary of Defence came from Bechtel. The Deputy Secretary of the Environment, Kenneth Davis, came from Bechtel and so they thought they would be in. There was a book written by McCartney, "The World’s Most Secret Corporation - How They Engineered the World" but actually, the odd thing is that once these people got to be in the government, they kept on being adversarial and competitive in the other sense of the word, not in the adversarial sense rather than in the efficiency sense, and what the Reagan administration wanted to do was even to abolish some construction industries-serving activities, for example, they wanted to abolish the Export/Import Bank, as being competitive with private banking. They wanted to abolish some government insurance supports. They wanted to abolish the commercial service, all of this and they did not really want it and I don’t know if that is ever going to change.

In a paper by Thomas Vonier, who is not here, but maybe you have seen the poster outside. He mentions what could be done to make American firms fit in in Europe in the future and he mentions, among other things, that it is in only those areas where there is a unique technical ability (and he has the word extraordinary) where extraordinary skill is involved, and maybe extraordinary speed is needed or where it seems to be especially risky. These are the areas where are the extraordinary skills and it is in the area that Dr. Kibert mentioned, namely for the United States, in use of computers, integrating computer design and constructability and a lot of these sorts of things, and it is exactly in the things which are unusual where perhaps, even in Portugal, foreign firms can later come in.

The odd thing in globalization is, an inventory principle is involved, last in, first out, that the international companies in the Middle Eastern boom that were last in were the Koreans, the Brazilians, Tunisians in North Africa and then they were the first out there. Their share of the international market went down or their total volume went down by something like 90%, while industrial countries, their international work as that market collapsed went down by something like 50% and, well, why is that? Because they were doing the most conventional sorts of things. They were doing the sorts of things which Arabian and Libyan contractors could themselves most easily learn. So, it is the unusual things, the risky things, the large scale things, the novel things, this is where firms are likely to be having a competitive advantage internationally and in this connection I note the following. The countries which have had this kind of integrated teamwork type of research, and lots of government encouragement for research and development, and namely the French, the Japanese and the Italians, their share of the world market, using these defective ENR figures, which have a lot of omissions and some double counting, but nevertheless, with a big margin of error, the share of these countries from about 1980 to about 1990 went up from about 10% of the world market to a third and more but at what expense? Not at the expense of the largest American firms: Kellogg, Bechtel, Carsons Floor, Lumbers Crest and these largest firms. If you compare the six largest American firms with the six largest French, Japanese and Italian, it continued to be about two and half times as much of the market. So the largest firms were the ones who were doing exactly the sort of thing, who were already internationally competitive, and were doing these sorts of things, while it is the smaller firms who were also the last ones to come in. They are the ones who don’t have these sorts of highly specialized skills and also the international networking capability which it takes to be truly globalized.

I was going to say something on Mr. Bowen's paper, but I didn’t find anything to disagree with. It is a lot easier and more fun to disagree. I have two extreme examples, that one time I made a comparison of something like 80 contractors building a very small 25 m² house, which cost about $3500 and it turned out that
the costs stayed more or less the same as pricing this house in the very standardized design in about 8 countries, with about 80 construction contractors, where wages would be, in the cheapest countries, Pakistan and Sri Lanka, $2.00 per day and Latin America and North Africa, maybe $10.00 per day for unskilled labour. But, somehow or other, the contractors with the higher labour costs found ways within their own country to use the labour more efficiently and there was not any way of predicting exactly how they would do that, but it turned out that, insofar as labour costs went up, they would substitute other ways of doing things, so that it is certainly true that one cannot simply go by inputs and use a cookbook formula.

The other extreme was a plant in Michigan being built by the Japanese firm “Kajima”, which is a half-billion dollar plant a little bit south of Detroit, which they were building for Mazda. And so that wasn't very far from us so I drove there and wanted to find out if they use any of their many patents with their much more research and development, which the Japanese firms do compared with Americans, and the manager, I think his name was Toshia Muki, told me “No they weren’t using any of the patents.” So I asked him what do they do differently and they said “we don’t do anything differently here.” They built an almost identical plant in Japan. The only thing they do differently is in Japan if they see some worker who is not working well, they can say to the subcontractor to fire him and he is permanently gone, but in Michigan you have a lot of trouble on your hands and even if he is fired, some other subcontractor will hire the same worker and also they do not have as much clout with the material suppliers as in Japan. He said mainly that means they spend a lot of time working at night, working week-ends, in order to stick to the schedule. So then I asked does it mean it is cheaper to build here or cheaper in Japan. He looked at me kind of funny. Later I concluded he must have felt, what a dumb question for an economist to ask, because he said well look, at 250 yen to the dollar, it is cheaper in Japan; at 150 yen to the dollar, it is cheaper here; so 200 yen to the dollar is about the break even point.

Well, finally, the last thing that I will mention is that what prices are ultimately depends on whether the industry is competitive or not competitive. And on this my British co-author Gill Wells and I, we never could agree, because I said the industry is fiercely competitive. Look at how easy it is to enter, look at how many firms go bankrupt, it must be fiercely competitive. And she said the whole point of the book is to show that competition is a myth, because design, construct and negotiated contracts avoid competition, construction management avoids competition, there are bribes all over the place, there is financial engineering and government pressures. How can you say there is any competition anywhere? So if you look at the book and you think it is kind of schizophrenic, that is why. So I said to her, why don’t you write the introduction and I write the conclusion, so don’t read both, read only the conclusion, and I concluded that, okay, sometimes they get high profits but they have to have the high profits, in some cases, in order to offset the risks elsewhere, and that essentially competition is not about who gets the contract but competition limits the price that one of the competitors can actually charge to get the contract.