system in terms of the number of universities, in physical and human resources, and in student numbers. Consequently, access to higher education is quite open, research activities have greatly increased, and the quality of the higher education system has generally improved in all aspects.

Some Perverse Effects

Nevertheless, the new legal framework produced some perverse effects mostly due to the excessive internal power of academics and the lack of accountability. As depicted in Burton Clark's model, universities moved from the strong influence of the state to a situation in which the academic oligarchy is the main force ruling the system. Professors, who kept their civil servant status, together with nonacademic staff and student unions (which, by the way, are not very representative) control institutions with a clear tendency to protect the "ivory tower."

A greater responsiveness to market forces in higher education and a more entrepreneurial university structure were considered necessary to confront the new challenges facing universities: decreasing demand (for demographic reasons), increasing competition, new external demands, globalization, and so on. The need to reform the legal framework of universities was recognized by both major political parties, which included proposals in their platforms for the last general elections.

The LOU

In 2001, the government presented a draft of the act that was considered by most experts to be too timid. The draft proposed a governing board for universities, one-third of which would be composed of people from outside the university and the rest of university staff and students. Nevertheless, rectors reacted angrily to the draft, considering it to be a frontal attack on university autonomy. For several months there was a confrontation between the conservative government and rectors, most of whom were on the left. The debate was not very productive and was basically conducted via the media. It was not a debate about the future of universities but rather a political confrontation that can only be explained in internal political terms. Eventually, the government reduced the external representation to only three people on the governing board (which may reach as many as 50 members), and the LOU was finally approved by Congress. In spite of this modest representation of the nonuniversity community, there are several claims in the Constitutional Court charging that the LOU is unconstitutional. It should be pointed out that in Spain university autonomy (which is guaranteed by the Constitution) and self-government by the academic staff are considered by most university people as equivalent.

The consequence of this confrontation is a new act with inadequate tools for coping with the challenges that Spanish universities have to face in the new global context. The central problem—the internal power structure of universities—remains untouched. Nevertheless, the LOU introduced some elements of flexibility that could be taken by universities or autonomous regions as a means of moving forward. For instance: non-civil-service positions at all levels of the academic staff ladder can be created; wage increments to compensate staff productivity will be introduced by regional governments and, universities will have more freedom to establish their own internal statutes. On the other hand, a clear positive aspect of the LOU has been the creation of the Agency for University Quality and Accreditation, which will be in charge of promoting quality and informing citizens about university performance. Quality assurance has been a regular activity during the 1990s in the Spanish higher education system, but the LOU has institutionalized these activities and introduced accreditation of academic programs.

In summary, while the LOU might bring create some opportunities for more dynamic universities, most analysts are skeptical about the real capacity of the LOU to transform the Spanish higher education system. The fear is that a good opportunity has been lost for making serious improvements and that events of last year in Spanish higher education can be summarized as too much ado about nothing.

A Research University in the Periphery: A Japanese Mistake

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The Japanese government has announced plans for a new research university to be built from scratch in Okinawa, in the Ryukyus, the island chain located two and half hours flying time southwest of Tokyo and known mainly for its tropical weather and American military bases. One could hardly think of a more isolated location for such a university. It will focus on biotechnology and will require an investment of \$600 million by the Japanese government to get it started. Japanese authorities say that it will cost \$160 million per year to operate—a figure that seems unrealistically low to operate a science-based research university. The aim is to recruit half the researchers from outside Japan; the language of instruction is to be English. Except perhaps

for some scientists from China, it is highly unlikely that many top researchers will be lured to Okinawa, not only because of the location and surroundings, but because of the generally internationally uncompetitive salaries offered by Japanese national universities at the senior levels.

From every perspective except perhaps for providing some public investment for Okinawa, this is a terrible idea. There are some significant lessons to be learned for higher education generally, and perhaps there is still time for the Japanese government to reconsider.

The decision comes at the same time that Novartis, the multinational pharmaceutical company, announced that it is moving its research laboratories from Switzerland, not exactly a scientific backwater, to Cambridge, Massachusetts in order to take advantage of the scientific infrastructure and entrepreneurial atmosphere there. This illustrates why Okinawa is not the right place for a research university. Even in the era of the Internet, intellectual enterprise requires community infrastructures, and other academic and intellectual stimulation.

There are a few examples of great universities or scientific centers located in isolated places, although it would be especially problematic to attempt this feat in the current environment. Even some of the great American state universities, established in the 19th century in relatively isolated places such as Iowa City or Urbana-Champaign, Illinois suffer somewhat from geographical isolation and find it difficult to retain top scientists and scholars. And this is why great centers of science have for a long time been located in or near metropolitan centers that have a tradition of academic excellence—such as Tokyo and Kyoto as well as Boston or San Francisco, Paris, and London. It is one thing to establish postsecondary teaching-oriented educational institutions in places like Okinawa to provide opportunities for training and education to the local population. It is quite another to build a research university in such a location.

There are a few examples of significant scientific centers located in remote places, and Okinawa must be categorized as a remote place. Novosibirsk in Russia and Los Alamos in the United States come to mind. But both were built to serve military needs more than basic or applied research and were purposely located in places where security would be easier to maintain.

The Japanese experience with establishing Tsukuba University in Ibaraki Prefecture near Tokyo is an example of the challenges. Tsukuba, founded in the 1973 as a way of diversifying higher education from the center of Tokyo, required several decades and much money to establish itself as a major academic center.

The insurmountable problem of the plans for

Okinawa is that the location is so clearly peripheral—to other academic institutions as well as to the industries it is intended to serve. It will be very difficult to attract top talent to Okinawa regardless of salary or other incentives—and the Japanese national universities are not noted either for administrative flexibility or high salaries. Top scientists, it should be remembered, are a rare breed. They are attracted by a scholarly community as much as by high salaries and favorable working conditions. The incalculable elements of an intellectual atmosphere—bookstores, cinemas, coffeehouses, and the like—are all significant in the thinking of academics. Okinawa has the multiple disadvantages of location, climate, and the complete lack of other academic or scientific amenities.

There are several relevant lessons to be learned from the current Japanese proposal—not only for Japan, which still has time to drop the idea, but also for other initiatives elsewhere for the establishment of new scientific institutions.

Major research institutions should not be founded in remote or peripheral locations. It is, of course, appropriate to have higher education facilities in such places in order to provide access and skills to local populations. But research universities will seldom be successful. The informal infrastructures of intellectual life are important. While communication is now possible through the Internet, there is no substitute for community or for direct links to both other researchers and the users (companies, government agencies, and others) of the knowledge products to be produced.

Lost Opportunities in the Massification of Higher Education in China

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One of the latest changes in China's higher education is the dramatic growth in student numbers. This expansion is happening in a policy context that views higher education as a tool for achieving an integrated global system along market lines. Meanwhile, Chinese society is also in transition. While making impressive progress in many areas, China is full of the tensions caused by turbulent social changes. This article aims to illustrate how some parts of the population are losing out on opportunities for receiving higher education while others are