In 2014, the North American Free Trade Agreement will have been in effect for 20 years. As an international trade instrument, it has had a very important impact on Mexico, not only because of what Canada and the United States represent in terms of trade, but also because 80 percent of the country’s trade is with the latter. On the other hand, Mexico’s gross domestic product is the world’s fourteenth largest due to its high production and export levels. Despite the billions of dollars that enter and exit the strengthened Mexican economy, it cannot be considered completely successful until it diversifies and becomes comprehensive. This implies rethinking national strategy so that, on the one hand, we trade with more actors and, on the other hand, other items become more a part of foreign trade, above all items linked to intellectual property.

DIVERSIFICATION

Today’s situation can be explained by the origin of Mexico’s productive capacity in the 1980s, when the decision was made to put the country on the free market path, a time when today’s productive conditions did not exist. At that time it was necessary to take action quickly using whatever was closest at hand. In my estimation, this defined the situation as an emergency, to be able to create an environment acceptable for free market competitiveness, and public policies responded to that national situation: that is, taking advantage of the long border with the world’s largest economy and the one-third of the world’s market represented by the United States. On the other hand, it was necessary to take advantage of the closest thing at hand productively speaking: the manufacture of commodities. However, today we continue with the same tendency, although the scenario is completely different: Mexico has historically high levels of reserves; monetary parity has stabilized; there is much, much higher investor confidence; and there is relatively sustained growth.

It is important to point out that the Mexican market must diversify. This would imply have a stronger economy and decreasing dependence on a single market, making it possible to achieve greater productivity. This would also be reflected in increased trade with other countries. Mexico has signed a good number of trade agreements that could be more fully taken advantage of, such as those created in the framework of the WTO’s multilateral agreements, the Latin American Inte-

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migration Association, and the free trade agreements with Japan, the European Union, and Israel, among others. This means the institutional framework to diversify our trade exists. Nevertheless, it has not happened. The legal instruments for expanding the market exist, but the conditions needed to do it have not been created.

The conditions I am referring to translate into public policies to create trade channels different from the more than 30 markets Mexico has access to through these instruments and as a function of a greater variety of products and obtaining new goods using technology and innovation. It is also necessary to encourage large-scale production, motivate deregulation, and explore the possibility of reducing transportation costs. Of course, all this should be within a framework of respect for and protection of the environment.

**COMPREHENSIVENESS**

By “comprehensiveness” I am referring to adding other elements to the productive process. Traditionally, three kinds of goods are part of foreign trade: commodities (raw materials, manufactured goods, or capital goods), services (intangible and portable), and intellectual property in any of its forms (industrial property or copyright). For many countries, innovation represents high earnings for their gross domestic product; that is, for those countries, high investments in science and technology get high returns. Equally, other economies are fundamentally based on payment for the services they trade and royalties from intellectual property rights, like Switzerland.

Mexico shows a great preference for producing physical goods, and forgets the two other objects traded internationally. An example, just to illustrate this: our 2010 trade balance registered US$217.25 billion in income from the export of physical goods; for services, the total was about US$11.45 billion. Meanwhile, the Mexican Institute of Industrial Property (IMPI) Patents Section registered 14,576 inventions, only 951 of which originated in Mexico.

These numbers are indicative of an industrialized, manufacturing society, while Mexico’s goal is for our productive system to integrate trade in services and intellectual property more, in order to achieve status as a post-industrial country, and that the economy be based not only on manufacturing tangible goods, but one that bets on its human resources and generation of knowledge. It has often been pointed out that the difference between developed and developing countries is that the former have technology, while the latter merely consume that knowledge. This has also been long emphasized by different sectors of Mexican society, mainly those focused on scientific research and technological development.

It is also important to underline that while the emerging economies are betting on capitalizing creativity and offering incentives for science and technology, in Mexico, Article 9b of the Law on Science and Technology, an article stating that at least one percent of GDP should be earmarked for this sector, has not even been enforced yet. Unfortunately, less than half of that amount is usually channeled into this area.

Along these same lines, the terms “knowledge society” and “knowledge economy” have been coined, and from the point of view of trade, this means that the other two kinds of goods traded internationally should also be integrated, and we should not just aim all our efforts at the manufacturing sector. Nevertheless, we should understand that integrating trade in services and intellectual property requires big investments in human resources and technology, in addition to which, results can only be expected in the medium and long terms. In the knowledge society, human capital is fundamental; this is why it grows and is enriched in accordance with a well-defined state policy articulating all kinds of education (basic, middle and high schools, and higher education), scientific research carried out in both public and private universities as well as special research centers, and technological development. This implies linking all these forms of activities to production, that is, companies. However, the challenge is even greater if we take into account the fact that the creation and development of technologies, despite there being a defined public policy to foster creativity and innovation, must go through several filters like economic feasibility, operational costs, and ethical considerations involving the relationship between society and technology, public policies and actions, and market forces that position better, competitive products with better quality and lower costs.
Usually, the commonly recognized points of concentration of power were armies, through their weaponry; governments, because they have all the power of the state; and economic agents, since capital is an enormous source of influence. However, to these three power sources we can add a fourth: information. This is translated into the fact that both those who generate knowledge and those who distribute it concentrate increasing amounts of power. One example is what is happening in the area of modern biotechnology. Estimates say that by 2030, the biggest source of production in the advanced countries that invest in science and technology linked to the biosciences will be advances in the bio-economy. This includes sectors like medicine with an enormous array of possibilities like reproductive technologies, regenerative medicine, and the procurement of bio-pharmaceuticals. In the agricultural sector, for its part, this kind of knowledge will also have an impact on the generation of satisfiers through genetic recombination. In specific industrial sectors, those linked to bio-fuels, bio-refineries, and bio-processes (such as the manufacture of foodstuffs), this technological advantage will also show through. The same thing will happen with the environment, with bio-solutions, and even with matters of security and defense.6

This productive paradigm will produce new elements through big investments in research and development. But if measures to reorient production are not taken, we will fall into technological dependency again, and the gap between the knowledge-generating countries and those that depend on it but do not participate in building it will widen.

In the process of consolidating a knowledge-based economy, we must take advantage of what is already in the public domain; that is, we must use technologies that can be perfected and developed without infringing any intellectual property rights. Along these same lines is technology transfer: Mexico is fertile ground for its incorporation into the productive matrix proposed here. In principle, NAFTA and other international agreements include stricter protection of industrial property; on the other hand, conditions also exist for direct investment in this area. For that reason, the state needs to design an appropriate public policy for technology transfer with public, private, and social actors’ participation.

It should be underlined that the World Intellectual Property Organization (WIPO) formulated 45 recommendations for development. Among them are those under the heading of Technology Transfer, Information and Communication Technologies (ICT), and Access to Knowledge, which emphasize the necessary cooperation and exchange among developed and developing countries to create an environment of inventive capability based on stimulating science and technological development.

There is also a direct link between stimulating science and technology, the knowledge society, and foreign trade. The now unjustified delay in this sector is bad for the economy for many reasons. First, neglecting it causes something called “technological rent,” that is, capital used to purchase satisfiers from another country, thus contributing to the deficit side of the balance of payments, in addition to the fact that very often the technology acquired is obsolete or not appropriate for national needs. Secondly, setting a policy to promote science and technology to increase trade in services and intellectual property goods leads to large investments in education, from the creation of educational infrastructure to the professionalization of human resources. The latter is of great import, since the majority of Mexico’s population is made up of young people who represent the fundamental input for creating cadre and human resources capable of generating knowledge and solving innumerable problems.

That is, if Mexico is thinking of investing in its youth and their education, now is the time. \[NM\]

Notes
2 Mainly in 1986 with the country’s entry into the General Agreement on Tariffs and Trade (GATT) and later, with NAFTA.