AMERICAN ECONOMIC GROWTH IN 1789 – 1870

A foreword:

The exceptional rate of growth of the United States in the XIX century, which lead it to catch-up with the Europeans leaders, especially the United Kingdom, and subsequently, to position as a world leader, may be related with the rapid assimilation of modern machines and tools of production. Contrary to the case of Germany, American economic growth was first devoted to the so-called "light industry", as textiles, leather and foodstuff-producing, and later on, with the advancement of transportation and communication, came the development of "heavy industry", with the construction of railroads, steam-boats, and the parallel coal, iron and steel-making industries, as well as the distribution and commercialization of goods. In this case the United States as follower was catching-up and forging ahead in the industrial led. Meanwhile the textile, leather, and foodstuff processing industries remained in the fringes of the banks' interests. It was heavy rather than industry to which production was devoted[1].

The German research university system was first advanced by Bayer, circa 1860, with the employment of a large quantity of chemists graduated from German universities, and the installment of scientific and technological research and invention programs. In that sense, it is relevant to recall the managerial practices of the great minds in the United States, as Edison and Coolidge, whose inventions and "effective use of organized research and development paved the way for scientifically trained people to use varied methodologies, to advance science, technology, and commercial interests together". For example, Edison's invention of the lamp was accompanied by the development and promotion of an entire system of generating, distributing, consuming and measuring electric power[2]. In that sense, Edison "directed a team effort that produced a working lamp in one year and an entire commercial electric system in four", in a complete innovative process of research, development, manufacturing, finance, promotion, publicity and politics, to lay conduits in the first generating station in New York in 1882. Edison's innovation was vital in the American and world-wide industrialization process, in the sense that it provided for the first time a

source of lighting and power that "altered urban living and transportation; by changing the ways of the workplace; and by giving rise to new industrial methods such as electrolytic processes for producing copper and other materials"[3].

Finally, it may be also said, that American manufacturing industry, benefited greatly from overseas entrepreneurs. In that sense, the United States borrowed all it could from Europe, specially from the English, who in the spread of the Industrial Revolution traveled to America and settle down factories, such as the Brothers Schofield (who built wool carding machinery driven by waterpower); the Scots Henry Burden (responsible for crucial innovations); the Welsh David Thomas (who first introduced anthracite iron smelting); and the Scots Andrew Carnegie, among others. The important argument to take from this is that Native Americans gain expertise from Europeans, improving their mechanical abilities, schooling and literacy at the elementary level[4].

There is no doubt the American economy had a privileged endowment of natural resources. If we compare the size of the country, it becomes clear: while the US territory covers 9,629,091 km2, together, the UK, France, Sweden and Germany holds just 1,594,808 square kilometers. In addition, in comparing the US with other countries, the reader may bear in mind that, relative to population, the US had a usually rich resource base; indeed, it was short on labor and long on raw material. In that sense, the US industrialization process, especially, in the late XIX century, was concealed mainly to its large access to natural resources and to the world's largest domestic market. Furthermore, and as explained before, it reflected the large private and public investments in research and development, as scientific and technical education. Moreover, considering the national technologies and the technological leadership of European countries in the nineteenth century, the difference with the laboratories research centers in conjunction with prestige universities.

Concerning the issue of the strike's result, we must recognize its impact on the consequences as the "thing in itself". First of all, the results of strike are constant, but the importance of them differs defendant on the achievement of laborers.

The principal consequences of the strike for laborers[5]:

1) in the process of strike the laborers lose the money, and can break the production process (if this process must be constant), and then they will be due to renew and rebuilt it, some laborers, whose particularity is in the necessity to follow the situation (brokers, journalists) can lose their professionalism;
2) by the precedent of starting strike they prove to the employer their willingness to block his management program, directed on the oppression of labourer's rights or change the situation, which doesn't satisfy them, in various ways;
3) the main outcome of the strike is the change or the conservation of the status of laborers and of the productive relations. In the economic respect these are the improvement of work conditions, the increasing and the payment of money. In the social respect these are the guaranties of social defense; in the political – giving to the laborers all the existing political rights, presenting them the same political possibilities as the employers have.

And there are such consequences of the labor strike to the employers:

1) money-lost in the process of strike, break of the production cycle, lost of the trade partners, of the role in the market, and this lost are much more significant then the laborers defeats, because the means of production are in the hand of the employer, and the strike's activity is usually directed on the destroying of these values;
2) in the cases, when the laborers proclaim the "constant strike", id est., they demonstrate their willingness to impede the production process until the full executing of their claims, the employer will lose the working hours, days (there were 10 labor hours in the day, and the strikers have decreased the day to 8 labor hours – the payment was the same, but the benefit of the working day was less), he can lose the money, what he will be due to pay the workers after the increasing of payment. Then he can lose the authority among another owners in the market by demonstrating his seek will to resist strike, but he will earn authority among the laborers[6];

3) for another hand, the product of the enterprise doesn't always depend on the quantity of the labor hours or days, but on the efficiency of the work process; and the last category depends on the rest and leisure of the laborers and in their interests in the results of the production;
4) but in the case of employer's unwillingness to satisfy the laborers claim there will be the heavy consequences to the both sides of the conflict: the employer will lose more and more, because the initiators of the strike would be more urgent, and mush strikers were arrested.

I should emphasize in conclusion that the unusually successful American economic growth of the late nineteenth century was characterized by the abundant natural resource endowment it inherited. Furthermore, the innovation and entrepreneurial skills of some native Americans, such as Edison and Coolidge, as well as with the assistant of overseas immigrants (British mainly), shed light in the new entrepreneurial class that fostered the economic growth and the industrial "take-off" stage of American history[7]. Furthermore, the role played by the unprecedented fragmentation of state banks and the spread of paper money since the mid 1800s, spurred capital investment and hence made available production resources for the establishment of new industries in almost the whole territory.

[1] “US Industrialisation Process in the Late XIX Century: The Natural Resource Endowment” – by Jairo Acuna-Alfaro, 1998.

[2] The same source.

[3] “The Enduring Logic of Industrial Success” – by Chandler, Alfred, 1990.

[4] “American Economic History” - by Hughes, Jonathan & Cain, Louis P.,1998.

[5] "The effect of labour relations legislation on strike incidence" – by M. Gunderson, J. Kervin, and F. Reid, 1997.

[6] "The decline of the global labor force" – by Jeremy Rifkin, 1999.

[7] “US Industrialisation Process in the Late XIX Century: The Natural Resource Endowment” – by Jairo Acuna-Alfaro, 1998.