MANUFACTURING AND DEVELOPMENT IN COUNTRIES AND AREAS OF AMERICA, 2000-2010

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AGUAYO, Eva

Abstract: We analyze the evolution of manufacturing and development in 22 American countries for the period 2000-2010, following our previous studies of the period 1980-1999. We find some advance in industrial development of several American countries for the period of study, but unfortunately we may notice stagnation and even diminution in some developing countries. Achievement of the Millennium Development Goals (MDGs) requires that international cooperation play a role to foster industrialization in many countries with a low level of manufacturing activities, given the positive impact of industry on non-industrial development. The paper contributes to show empirical evidence in favour of Kaldor’s perspective on the positive role of industrialization.

Keywords: Kaldor, Industry, Manufacturing, American countries, Development for 2000-2010.

JEL codes: L6, N16, O14, O51, O54

1. Introduction

As seen in Guisan, Aguayo and Exposito(2001), Guisan(2014) and other studies, empirical evidence shows the great importance of Kaldor’s views on the positive impact of industrialization on economic development.

Regarding Latin American countries we have studied production by sector and development in other studies, for the period 1980-1999, and here we analyze the period 2000-2010, with special regard to the positive role of industrialization on economic development.

We analyze the evolution of 22 countries of America where there are two outstanding countries: Canada and the United States, with a high degree of industrial and non-industrial development, as well as a few countries with industrial development around world average while other countries are clearly below. As seen in Guisan and Neira(2006), and other studies, investment and education are two main factors explaining the differences in economic development.

It is of uppermost importance to favour international cooperation addressed to improve industrialization in many American countries in order to provide a great impact on non-industrial development. Guisan, Aguayo and Exposito(2005) analzye several ways of international cooperation including not only investment but also trade, transfers from abroad and other activities that foster industrial and non-industrial development in low income countries.

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Table 1 show the evolution of Manufacturing real value-added per capita (qmh), for the period 2000-2010, together with real Gross Domestic Product per capita (GDPH), investment per capita (IH) and Savings per capita (SH), in 4 areas of America, in comparison with other areas and with World average.

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Note: Data have been elaborated by Guisan(2014) from country data of World Bank(2014). In case of non available data, we have included our provisional estimations. QM is real value-added in Manufacturing GDP is Gross Domestic Product, I is investment and S is savings. Data of IH in area 16 has been updated on 5th October of 2015.

Both IH and SH in the area of USA and Canada are high, in comparison with World average, while the other American areas were in year 2010 very close to World average. The evolution of the variables of table 1 shows a decrease of manufacturing per capita in two areas of America (areas 13 and 14 in Northern and Central America), stagnation in one area (area 15 in the South West) and increase in one area (area 16 in the South East).

Industrialization in areas of Latin America is close to World average and superior to Africa and Asia-Pacific average, but clearly below the area of USA and Canada and average of Europe and Eurasia.

In the next section we analyze the evolution of manufacturing in 22 countries of America.

3. Manufacturing and development in 22 countries of America

As seen in Guisan, Aguayo and Exposito(2001), and in other studies, it is usually very important to foster manufacturing in order to achieve sustainable development in other economic sectors. Countries with low levels of industrial production (both in the domestic market and in foreign countries), usually have a low level of non industrial development.

Table 2 shows the evolution of manufacturing production in the domestic market of 22 countries of America, and we may notice the great difference on the level of economic development between industrialized countries and less industrialized countries.
Table 2. Manufacturing, Development and Population in countries of America, 2000-2010: QMH, GDPH, QNMH in USD at 2005 prices and PPPs, Population in thousand.

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Note: Data have been elaborated by Guisan and Aguayo, in this study, from country data of World Bank(2014). In case of non available data, we have included our provisional estimations. QMH is real Value-Added in Manufacturing per head, GDP is Gross Domestic Product per head, QNMH is real Value-Added in non Manufacturing per head, I is investment per head and S is savings per head. Data of IH in area 16 has been updated on 5th October of 2015. *1 World(132) is the set of 132 countries of the study by Guisan, Aguayo and Exposito(2001). Data of QMH, GDPH, QNMH, IH and SH in US Dollars at 2005 Purchasing Power Parities (PPPs).

In table 2 there are 10 American countries with production per head higher than 10000 USD, over World average, in year 2010. In descending order: USA, Canada, Argentina, Chile, Uruguay, Mexico, Panama, Venezuela, Costa Rica and Brazil. Between 5000 and 10000 USD per head appear 6 countries, in descending order: Peru, Colombia, Dominican R., Ecuador, Jamaica and El Salvador. The lower values, below 5000, correspond, in descending order to: Paraguay, Bolivia, Guatemala, Honduras, Nicaragua and Haiti.
The evolution of manufacturing for the period 2000-2010 was not positive in many Latin American countries, with stagnation in several cases (Bolivia, Brazil, Guatemala, Haiti, Honduras and Jamaica), diminution in other cases (Chile, Costa Rica, El Salvador, Haiti, Mexico, Panama and Venezuela). In other countries there was a clear increase (Argentina, Colombia, Dominican Republic, Nicaragua, Paraguay, Peru and Uruguay).

The advancement to achieve the Millennium Development goals has been not enough, for the period 2000-2010, in several cases and thus more initiatives to foster manufacturing, investment and other ways of international cooperation, as seen in Guisan, Aguayo and Exposito(2015) are of uppermost importance.

In the Annex we include a report of our Association published by Guisan(2012).

4. Conclusions
The main purpose of this study has been to evaluate the real evolution of manufacturing and development in 22 countries of America during the period 2000-2010. We find that the average of America experienced a diminution in domestic manufacturing per head, from 3312 USD at 2005 PPPs in year 2000 to 3052 in year 2010.

In spite of the high levels of the United States and Canada, and the evolution around World average of many Latin American countries, we find poverty and lack of industrialization in many countries, particularly in those with manufacturing values below World average (1728 USD, in year 2010, at 2005 PPPs)

The main causes of the low values of manufacturing are related with the educational level of population and with the circumstances that do not favour investment. It is of uppermost importance to diminish financial risk, through national and international guarantees, in order to favour international investment and other ways of cooperation to development.
**Bibliography:**


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1 [http://www.usc.es/economet/aeid.htm](http://www.usc.es/economet/aeid.htm)  
2 [http://www.usc.es/economet/ijaeqs.htm](http://www.usc.es/economet/ijaeqs.htm)  
3 [http://www.usc.es/economet/rses.htm](http://www.usc.es/economet/rses.htm)  
4 [http://www.usc.es/economet/eedi.htm](http://www.usc.es/economet/eedi.htm)  

Journal published by the EAAEDS: [http://www.usc.es/economet/eaat.htm](http://www.usc.es/economet/eaat.htm)

Economic development and real production per capita, and by sector, for the period 1980-1999 in American countries is analysed in two articles by M.C. Guisan and E.Aguayo, free downloadable at the journal Website:

Economic Development of American and European Areas in 1951-99

Those articles published in the journal Applied Econometrics and International Development show an estimated average annual increase of real Value-Added per head of 1.20%. Regarding the period 2000-2010 the average annual increase has been lower, around 0.69%, in a set of 22 American countries.

Regarding production by sector, with data calculated from World Bank Indicators, we find the following differences, between both periods of time, in rates of annual increase of real Value-added per head, in a set of 22 American countries:

- **Agriculture**: a light increase, from 0.80% for 1980-1999 to 0.96% for 2000-2010
- **Industry and Building**: a decrease, from 1.62% for 1980-1999 to -0.71 for 2000-2010
- **Services**: a light increase, from 1.07% for 1980-1999 to 1.11% for 2000-2010

**Total**: a decrease, from 1.20% for 1980-1999 to 0.69% for 2000-2010

Importance of Industry and its effects on Services: We emphasize that the positive evolution of Services depends, at a great extent, on the positive evolution of industry. Industrial stagnation or decline leads to limitations in the capacity of expansion of services, and to generate negative effects due to strong external trade deficits.

Although some countries have experienced a positive evolution of industrial production per head, the average of 22 American countries has decreased. Industrial development should be improved in American countries given its positive direct and indirect effects on economic development.

Regarding industrial development, among 22 American countries in year 2010, we find, in Dollars at 2000 prices and exchange rates:

1) First group: the highest values of industrial value-added per head in Industry correspond to the USA, Canada, Trinidad and Tobago, with more than 6000 Dollars of year 2000 per capita.
3) A third group within 1000 and 2000 Dollars of year 2000 per capita consiste of: Brazil, Chile, Costa Rica and México
4) Between 500 and 1000 Dollars of year 2000 per head: Colombia, Dominican Republic, Ecuador, El Salvador, Jamaica, Panama and Peru.
5) Below 500 Dollars of year 2000 per capita: Bolivia, Guatemala, Honduras, Nicaragua and Paraguay.

This set of 22 countries consists of all American countries with more than one million population in year 2010, but two countries without available data for sectoral value-added at the source of data (World Development Indicators of World Bank on line on 3rd April of 2012). In the cases of Cuba and Haiti, without available data at the WDI search on 3rd April 2012, we find that, accordingly to other sources, Cuba would be included in the third group, with around 1038 Dollars of industrial real value-added per capita, and Haiti would be included in group 5, below 500 Dollars per capita.
Comentarios en español a los gráficos 1 y 2 incluidos en la entrada 32 del Blog.

El gráfico 1 muestra el valor del Producto Interior Bruto por habitante de 20 países de América Latina y el Caribe en el año 2015 (expresado en Dólares a precios y Paridades de Poder de Compra del año 2011), en comparación con la media mundial.

El orden de los países es el siguiente:


El gráfico 2 muestra el incremento del PIB per cápita en el período 2010-2015, expresado en Dólares a precios y Paridades de Compra de 2015, en comparación con la media mundial de incremento de 1590 Dólares en dicho quinquenio.

Observamos que 7 de los 20 países han tenido un incremento en el período 2010-2015 superior al incremento medio mundial de 1590 Dólares por habitante, pero en varios países el incremento ha sido mucho menor que la media mundial.

En el artículo del Volumen 15.1 de la revista Regional and Sectoral Economic Studies se incluyen datos de la evolución de la industria manufacturera en estos países, y se recomienda un impulso a la industria con objeto de favorecer el desarrollo de otros sectores y el aumento del PIB por habitante, en el siguiente artículo, disponible gratuitamente en la Web de la revista, y en la base internacional Ideas.Repec:
Manufacturing and Development in Countries and Areas of America, Guisan, M.C., Aguayo, E.

Revista RSES en la Web de la Asociación de Estudios Euro-Americanos de Desarrollo económico:
http://www.usc.es/economet/aea.htm

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