

Education, Industry, Trade and Development of American Countries in 1980-99

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Abstract

This paper presents a general view of economic growth and the evolution of education and population in countries of North America, Central America and South America, including a comparison of production per inhabitant in Agriculture, Industry and Services, and foreign trade. The leadership of USA and Canada is mainly founded on their great support to education, human capital and industry, and this policy should be followed to improve a general development in all America.

JEL Classification: E6, F0, I2, L8, O1, O51, O54

Key words: Economic Growth in North America, Economic Growth in Central America, Economic Growth in South America, American Population Growth, Production by Sector in America, External Trade in America

1. Production and Population Growth in America during the 20th century

Although the present crisis of some Latin American countries leads itself to a general vision of failure and economic stagnation, the situation is not as severe as it first appears at first view.

If we look at the evolution of all American countries during 20th century, we can see that the group formed by the USA and Canada, and the group formed by Latin American countries, experienced rates of growth of real Gross Domestic Product, Gdp, higher than world average, with 3.14% on average for the former group and 3.75% for the latter, the world average being 2.97%.

This means that economic growth in Latin America performed as well as in the USA, and even at a higher rate. But this does not happen in per capita terms, as the increase in Gdp per inhabitant was lower in Latin America because of the difference in rates of population growth.

Here we analyse the influence of education in explaining the differences between economic development in American countries.

In section 2 we analyse the exponential rates of growth of Gdp, Population and Gdph in two groups: 1) USA and Canada, and 2) Latin America and Caribbean.

In section 3 we analyse data of education, fertility and development in American countries, where we can see the important impact that the improvement in education has in reducing averages rates of fertility.

Section 4 is devoted to the analysis of production by sector and external trade in American countries and there we make some comments on the importance of education and inter-sector relations for economic growth.

2. Rates of Growth of Gdp and Population in America during the 20th century

The USA and Canada experienced an annual rate of growth of population of approximately 1.25% per year over the century, which is below the world average of 1.40%. Conversely, Latin American countries experienced the highest rate of all main world areas, with an annual rate of growth of population of approximately 2.16% over the century.

These rates of growth are measured in terms of exponential rates and thus the rate of growth of Gdph is exactly the difference between the rate of growth of Gdp and the rate of growth of population.

These rates, calculated from data by Maddison(2001), allow us to estimate the population of Latin American in 1913 as approximately 81 million people, increasing at a yearly average rate of 1.95% during the period 1913-50, multiplying its value by a factor of 2.05, reaching 166 million in 1950. This factor was higher than that of world population which multiplied by only 1.41 during this same period.

In the same period the population of the USA and Canada increased at a yearly average rate of only 1.24%, implying a multiplication factor of just 1.58, and their population in 1950 also amounted to 166 million people.

In the second half of the century Latin American countries also had significant increases of population, reaching approximately 508 million inhabitants in 1998, while the USA and Canada had 301 million altogether.

So, during the period 1950-98 the population in Latin America increased by 342 million people and in the USA and Canada by only 135 million. These figures explain in great part the important differences in the increases of Gdp per inhabitant, as it is generally more difficult for countries with high rates of population growth to achieve improvements in levels of production and income per inhabitant.

In 1913 the population of America was approximately equal to 186 million inhabitants, increasing to 332 million in 1950 and 809 million in 1998. The growth of population was very significant, multiplying its value by a factor of 4.35. This factor was higher in Latin America, with a value of 6.27, than in the USA and Canada where the factor was 2.87.

The real Gdp increased by a factor of 14.42 in the USA and Canada and by a factor of 24.23 in Latin America, during the period 1913-98, both of these being impressive figures when we consider that world Gdp increased by a factor of 12.48.

In the period 1913-98, real Gdph increased by the following figures:

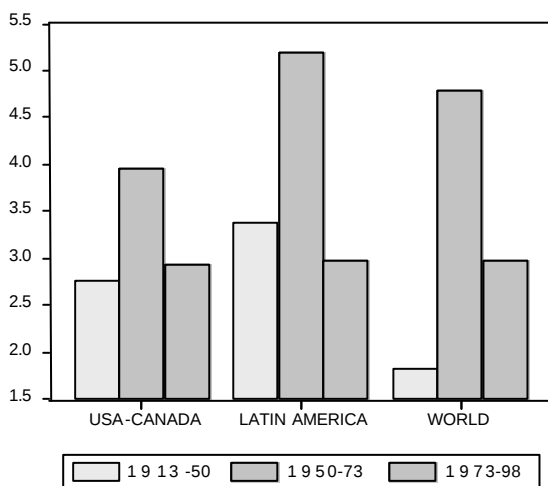
Factor of multiplying Gdph in USA and Canada: $14.42/2.87 = 5.02$

Factor of multiplying Gdph in Latin America: $24.23/6.27 = 3.86$

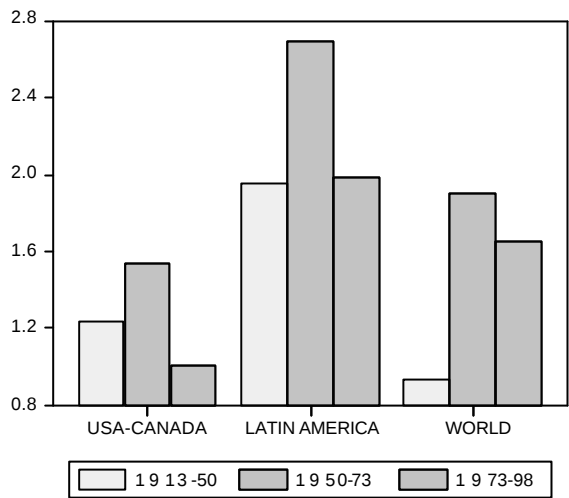
As a consequence of the higher levels of growth of population, Latin American countries had a lower increase in Gdp per inhabitant than the USA and Canada, and performed similarly to world average. As their initial values of Gdph were rather low at the beginning of the century they did not manage a strong level of development despite the high increase in real Gdp.

The following graphs and tables show the evolution of Latin American countries and the world in three periods: 1913-50, 1950-73 and 1973-98.

Graph1. Rates of growth of real Gdp



Graph 2. Rates of growth of Population



Graph 3. Rates of growth of Gdph

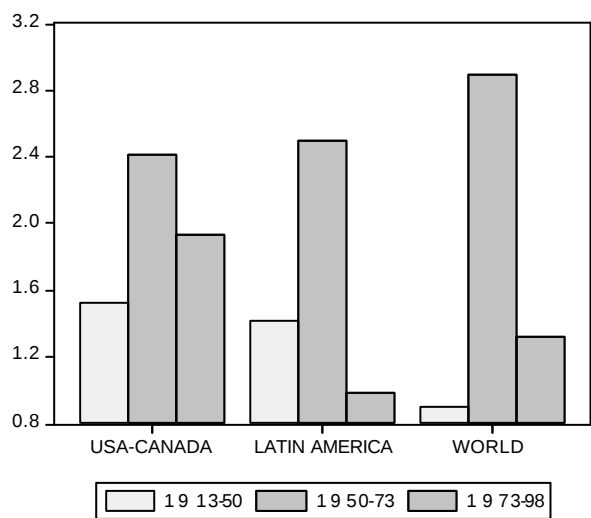


Table 1. Exponential rates of growth of real Gdp

Area	1913-50	1950-73	1973-98	1950-98	1913-98
USA + Ca	2.77	3.95	2.94	3.42	3.14
Latin America	3.37	5.19	2.98	4.04	3.75
World	1.83	4.79	2.97	3.84	2.97

Table 2. Exponential rates of growth of Population

Area	1913-50	1950-73	1973-98	1950-98	1913-98
USA + Ca	1.24	1.54	1.01	1.26	1.25
Latin America	1.95	2.69	1.99	2.33	2.16
World	0.93	1.90	1.65	1.77	1.40

Table 3. Exponential rates of growth of Gdp per inhabitant

Area	1913-50	1950-73	1973-98	1950-98	1913-98
USA + Ca	1.53	2.41	1.93	2.16	1.89
Latin America	1.42	2.50	0.99	1.71	1.59
World	0.90	2.89	1.32	2.07	1.56

Table 4. Evolution of the exp. Rates of Gdp, Pop and Gph in 1950-98

Area	Rate of Gdp	Rate of Pop	Rate of Gdph
USA + Ca	3.42	1.26	2.16
Latin America	4.04	2.33	1.71
World	3.84	1.77	2.07

So, in the second half of the 20th century the average rate of growth of real Gdp was higher in Latin America than in the USA and Canada, and the economic development of Gdph could have been higher if Latin American Countries had had a lower population growth rate, because the exponential rate of growth of Gdph is equal to the exponential rate of growth of Gdp less the exponential rate of growth of Population.

As we have pointed out in Guisan, Aguayo and Exposito(2001), during the period 1913-98 Latin America reaches only fifth position in Gdph rate among 7 large areas of the world, with an average rate of only 1.59 which is the difference between the

rate of real Gdp, 3.75 and the rate of population growth of 2.16%.

Latin American countries had a rate of growth of Gdph which was higher than world average during the period 1913-50. This rate showed a significant increase during the period 1950-73 even though it was lower than world average.

The negative consequences of the petrol crisis from the year 1973 on Gdp growth are very obvious in all areas of the world with the exception of Asia. During the period 1973-90 Latin American rate of growth of Gdp, 2.98, was very similar to the world average, 2.97, but the rate of Gdph was lower in Latin America due to the higher rate of growth of population.

3. Education, Fertility and Development in American Countries

In the tables below we show the values for population in the years 1980, 1990 and 1999 in countries and large areas of America, as well as some important figures related to education and demography which are:

Tyr: Average total years of schooling of population over 15 years old, according to data from Barro and Lee(1994).

Eduh: Public expenditure in education per inhabitant in 1994, estimated with the data used in Guisan(1997).

Fer00: Fertility rate in the year 2000, according to UN figures, representing the average number of expected children per woman.

Table 5. Population, Education and Fertility in countries of Area 1

Country	pop80	pop90	pop99	tyr99	eduh	fer00
Canada	24.6	26.5	30.6	11.4	1620	1.6
USA	227.2	250.4	272.9	12.2	1371	2.0
Area 1	251.8	276.9	303.5	12.1	1396	1.9

Table 6. Population, Education and Fertility in countries of Area 2

Country	pop80	pop90	pop99	tyr99	eduh	fer00
Costa Rica	2.3	3.0	3.6	6.0	263	2.8
Dominican R.	5.7	7.1	8.4	5.2	64	2.9
El Salvador	4.6	5.2	6.2	4.5	40	3.2
Guatemala	6.8	9.2	11.1	3.1	56	4.9
Haiti	5.4	6.6	7.8	2.7	13	4.4
Honduras	3.6	5.1	6.3	4.1	78	4.3
Jamaica	2.1	2.4	2.6	5.2	184	2.5
Mexico	67.6	81.7	97.4	6.7	423	2.7
Nicaragua	2.9	3.7	4.9	4.4	72	4.3
Panama	2.0	2.4	2.8	7.9	340	2.6
Area 2	103.0	126.3	151.1	5.9	307	3.1

Table 7. Population, Education and Fertility in countries of Area 3

Country	pop80	pop90	pop99	tyr99	Eduh	fer00
Bolivia	5.4	7.2	8.1	5.5	68.0	4.4
Chile	11.1	13.2	15.0	7.9	244.6	2.4
Colombia	28.4	32.3	41.5	5.0	208.9	2.8
Ecuador	8.0	10.5	12.4	6.5	131.4	3.1
Peru	17.3	21.5	25.2	7.3	55.3	3.0
Venezuela	15.1	19.3	23.7	5.6	418.2	3.0
Area3	85.3	104.0	125.9	6.1	204.4	3.0

Table 8. Population, Education and Fertility in countries of Area 4

Country	pop80	pop90	pop99	tyr99	Eduh	fer00
Argentina	28.1	32.3	36.6	8.5	294	2.6
Brazil	121.7	149.0	168.1	4.6	259	2.3
Paraguay	3.1	4.3	5.4	5.7	99	4.2
Uruguay	2.9	3.1	3.3	7.2	192	2.4
Area 4	155.8	188.7	213.4	5.3	260	2.4

We can also observe that there are important differences among areas and that all Latin American areas have a low value of expenditure in education per inhabitant, and generally low levels of average total years of schooling of population (tyr).

Although this variable improved over the last few decades of the 20th century and this is positive for development, they are a long way off from the situation in industrialized countries, and this is the cause of their rather excessive fertility rates, which are higher than world average in several Latin American countries.

In Guisan, Aguayo and Exposito(2002) we will analyse the results of an econometric model applied to American countries, where we can see that the influence of the increase in education on the rates of fertility is negative.

A wider study of world population, in Guisan, Aguayo and Exposito(2001), found that on average, the excessive rates of fertility are reduced by one unit for each two years of increase in the total average years of schooling of population. In the paper the differences between religion were not relevant when education was improved. Reduction in fertility rates ends when a country reaches stability at a moderate figure such as those of West Europe which are near 1.

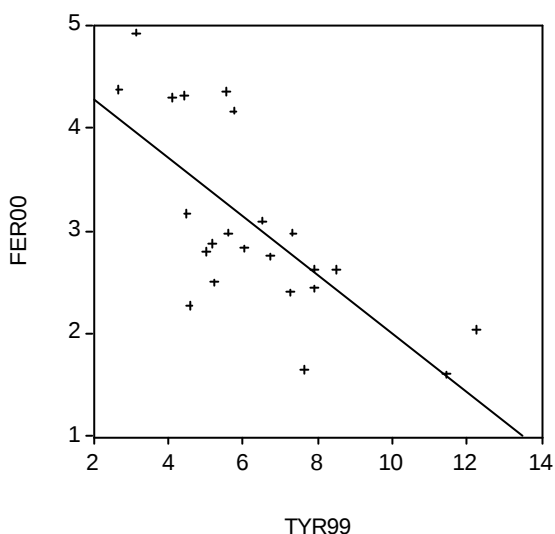
Religion has obviously had some influence over the last few centuries, and continues at present to explain some of the differences in fertility rates, mainly because of their differences in support for education. Protestantism, as Goldin and Katz(2001) pointed out has been very keen to spread education amongst the population and this largely explains the leadership of the USA in world development.

Few researchers have dedicated special attention to the relationships between fertility, population and growth. Some are referred to in the bibliography including Becker and Murphy(1999), Brander and Dowrick(1994) Doepke(2001) Ehrlich and Lui(1997), Arranz, Freire and Guisan(1997) and (2001), Neira, Aguayo and Guisan(1999), and Guisan(1997).

From their perspectives we see that low levels of education are causally correlated with high fertility rates and that people with higher levels of education have, on average, lower fertility rates than people with lower ones. This relation applies to means, allowing for individual variety at a given level of education.

Graph 4 show the relation between Fertility and Schooling in America. We see in graph 4, that there is a very high correlation and this is not sheer coincidence but a very important causal relation.

Graph 4
Relation between Fertility and Schooling (America)



4. Production by sector and external trade in American countries

In the following tables we present the evolution of American areas, including the most developed countries (USA and Canada) for the purpose of comparison. Value-added per inhabitant, ph, is measured in US\$99 according to Purchasing Power Parities and values of exports per inhabitant are measured in US\$ dollars at current prices and exchange rates.

We see that America as a whole has a value of Gdp per inhabitant which is more than twice the world average in 1998 and that the level of education is substantially better than world average, with more years of schooling per inhabitant and greater expenditure on education per inhabitant.

If we see the situation by country we can see that Argentina is the best situated of all Latin American countries, with the highest level of Gdph, which reached a value of 12609 US\$ in 1999. The second place among Latin American countries in 1999, was occupied by Chile with a value of 9419, third place by Uruguay with 89370, fourth by Mexico with 8338 and fifth by Brazil with 7342.

In Tables 13 to 20 we present production per inhabitant, classified by sector of production in 1999, and we see that Latin American countries have a very low value of industrial development in comparison to the USA and Canada. Argentina, however, is the most prominent among them.

Table 9. Agriculture and Total Ph in USA and Canada

Country	ph80a	ph90a	ph99a	ph80t	ph90t	ph99t
Canada	781	816	781	19529	25192	26025
USA	407	557	638	22337	27209	31912
Area 1	443	582	653	22062	27016	31319

Note: dollars per inhabitant at 1990 prices and PPPs

Table 10. Industry and Services Ph in USA and Canada

Country	ph80i	ph90i	ph99i	ph80s	ph90s	ph99s
Canadá	6276	7900	8328	12472	16476	16916
USA	5062	5880	8297	16868	20772	22977
Area 1	5180	6073	8300	16439	20360	22366

Note: dollars per inhabitant at 1990 prices and PPPs

Table 11. Exports of goods and services per inhabitant: USA and Canada

Country	Expb90h	Exps90h	Expb98h	Exps98hh	Expt90h	Expt98h
Canada	4812	691	7074	998	5504	8071
USA	1572	528	2524	888	2100	3411
Area 1	1882	544	2983	898	2426	3881

Note: dollars per inhabitant at current prices and exchange rates

Table 12. Agriculture and Total Ph in Mexico and Central America

Country	ph80a	ph90a	ph99a	ph80t	ph90t	ph99t
Costa Rica	862	898	933	5316	5504	6665
Dominican R.	623	523	616	3662	3990	5598
El Salvador	667	531	480	3715	3383	4365
Guatemala	982	818	862	3916	3121	3746
Haiti	885	718	408	2319	1899	1361
Honduras	493	454	432	2387	2212	2401
Jamaica	249	235	262	3306	3564	3269
Mexico	494	442	417	8351	7852	8338
Nicaragua	819	517	623	3830	2519	2397
Panama	460	487	489	5627	4895	6118
Area 2	573	503	481	6716	6223	6717

Note: dollars per inhabitant at 1990 prices and PPPs

Table 13. Industry and Services Ph in Mexico and Central America

Country	ph80i	ph90i	ph99i	ph80s	ph90s	ph99s
Costa Rica	1256	1271	1466	3199	3335	4266
Dominican R.	1121	1287	1959	1917	2179	3023
El Salvador	999	897	1222	2050	1955	2662
Guatemala	826	598	712	2108	1705	2173
Haiti	511	353	272	923	828	680
Honduras	663	646	720	1231	1111	1248
Jamaica	1112	1257	1079	1945	2072	1929
Mexico	2115	1952	2251	5742	5458	5670
Nicaragua	748	467	503	2263	1535	1270
Panama	1085	788	1101	4082	3620	4527
Area 2	1692	1542	1797	4451	4178	4439

Note: dollars per inhabitant at 1990 prices and PPPs

Table 14. Exports of goods and services per inhabitant: Mexico and Central America

Country	Expb90h	Exps90h	Expb98h	Exps98hh	Expt90h	Expt98h
Costa Rica	484	195	1550	370	678	1920
Dominican R.	104	153	96	292	257	388
El Salvador	112	58	207	45	171	253
Guatemala	126	34	235	53	160	288
Haiti	24	7	23	23	31	46
Honduras	163	24	253	58	187	312
Jamaica	482	414	508	669	896	1177
Mexico	498	88	1214	123	586	1338
Nicaragua	90	9	119	31	99	150
Panama	141	375	284	567	516	851
Area 2	380	56	439	81	436	520

Note: dollars per inhabitant at current prices and exchange rates

Table 15. Agriculture and Total Ph in West South America

Country	ph80a	ph90a	ph99a	ph80t	ph90t	ph99t
Bolivia	419	297	375	2667	1982	2498
Chile	511	764	754	5172	6107	9419
Colombia	1184	1385	851	4590	5704	6075
Ecuador	308	360	366	3250	2954	3048
Peru	283	297	422	5191	3950	5272
Venezuela	316	332	288	7478	6353	5757
Area3	629	707	569	5052	4978	5726

Note: dollars per inhabitant at 1990 prices and PPPs

Table 16. Industry and Services Ph in West South America

Country	ph80i	ph90i	ph99i	ph80s	ph90s	ph99s
Bolivia	806	614	774	1423	1070	1349
Chile	1718	2042	3108	2943	3301	5557
Colombia	1066	1527	1458	2340	2793	3767
Ecuador	1089	930	1006	1853	1664	1676
Peru	1782	1309	2003	3126	2343	2847
Venezuela	1471	1347	1384	5691	4674	4094
Area3	1353	1390	1661	3069	2880	3496

Note: dollars per inhabitant at 1990 prices and PPPs

Table 17. Exports of goods and services per inhabitant: West South America

Country	Expb90h	Exps90h	Expb98h	Exps98h	Expt90h	Expt98h
Bolivia	129	18	139	30	148	169
Chile	635	136	1002	272	771	1274
Colombia	209	48	272	50	257	322
Ecuador	257	48	346	62	305	408
Peru	150	33	231	67	183	298
Venezuela	905	58	742	56	963	798
Area 3	380	56	439	81	436	520

Note: dollars per inhabitant at current prices and exchange rates

Table 18. Agriculture and Total Ph in East South America

Country	ph80a	ph90a	ph99a	ph80t	ph90t	ph99t
Argentina	698	651	757	11304	9452	12609
Brazil	531	571	661	5924	6420	7342
Paraguay	1161	1198	1217	5132	4783	4680
Uruguay	627	587	804	7130	6939	8937
Area 4	575	599	694	6901	6910	8203

Note: dollars per inhabitant at 1990 prices and PPPs

Table 19. Industry and Services Ph in West South America

Country	ph80i	ph90i	ph99i	ph80s	ph90s	ph99s
Argentina	3928	2996	4035	6677	5805	7818
Brazil	1817	1809	2129	3576	4040	4552
Paraguay	1357	1014	1030	2614	2571	2433
Uruguay	2585	2375	2592	3918	3977	5541
Area 4	2203	2003	2435	4122	4308	5074

Note: dollars per inhabitant at 1990 prices and PPPs

Table 20. Exports of goods and Services per inhabitant: East South America

Country	Expb90h	Exps90h	Expb98h	Exps98h	Expt90h	Expt98h
Argentina	382	70	733	124	452	857
Brazil	211	25	310	43	236	353
Paraguay	224	95	194	89	319	283
Uruguay	547	149	846	422	696	1268
Area 4	246	36	388	64	282	452

Note: dollars per inhabitant at current prices and exchange rates

5. Education, Industrial Development and Economic Growth in America

Besides this data we present some selected graphs to show the great importance education plays in the improvement of real Gdp. They also show other important relations, such as inter-sector relations, the relation between industrial production and imports, and the relation between imports and exports.

The majority of fluctuations depend on insufficient development of external trade and/or industrial production as well as on insufficient education improvement.

In Guisan, Aguayo and Exposito(2001) we present an econometric inter-sector model that relates the evolution of Production in Services with Agriculture and Industry as well as with Tourism and Exports using a cross-country sample of the whole world, which shows the great importance that these inter-sector relations have in explaining the evolution of the Services sector which is the sector with more growth potential.

In Aguayo, Exposito and Lamelas(2001) we present a similar model for American countries whose results are very similar to those of the aforementioned world model and show that in Latin American these relations are very clear. This means that economic growth in less developed countries needs significant improvement in industry and/or exports of goods and services.

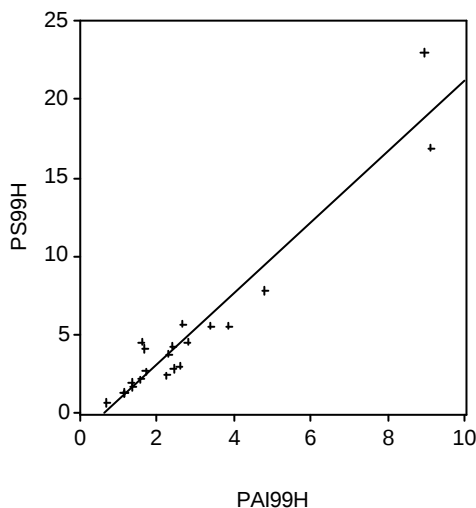
Exports of goods and services is generally positive for the development of the Services sector, but it is also important for the development of Industry, as industrial production usually requires some intra-industrial trade among countries, especially in the case of countries with a population of just a few million.

Intra-industrial trade among countries usually leads to an increase in imports demand, which, due to financial needs, usually requires a simultaneous increase in exports.

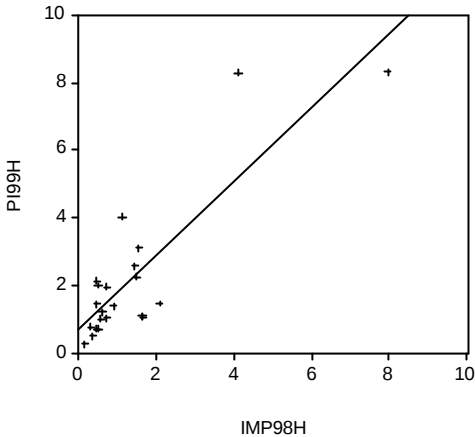
Un uneven evolution of both, imports and exports, usually is a main cause of external debt and economic fluctuations, so the importance of increasing exports at the same time that industrial development and imports demand evolve.

The following graphs show the relation between Production in Services and the sum of Production in Agriculture and Industry, and the relation between Production in Industry and Imports and the relation between Imports and Exports, in American countries.

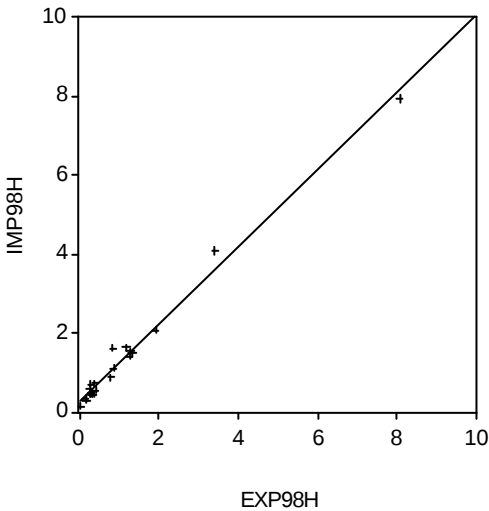
Graph5. Relation between Phs and Phai



Graph 6. Relation between Industrial Production and Imports



Graph 7. Relation between Imports and Exports

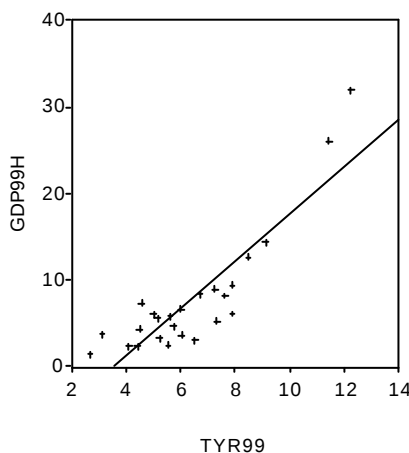


After 1973 the external trade restrictions on development in Latin American countries were significant as exports did not grow at the necessary rate to improve industrial development needed for imports. Also, the debt crisis provoked numerous problems and an important reduction in the rate of growth of real Gdp. In the next section we will comment on this important point.

On the other hand, several econometrics studies such as those cited in Neira, Aguayo and Guisan(1999) show that there is a positive causal relation between human capital and the growth of Gdp, not only due to the aforementioned effect on fertility reduction but also because education usually contributes very positively to increase social capital and good economic policies which, in turn, encourage industrial development.

The following graphs show the relation between Gdph and Education in American countries.

Graph 8. Real Gdp and Total Years of Schooling



In a forthcoming article, Guisan, Aguayo and Exposito(2002), we will present other interesting relations and analysis of the evolution of economic growth in American countries, here we want to remark the great importance of Education and to regret that very often this variable is forgotten or missing in many articles and reports on Latin American economic growth. Some interesting contributions on this subject are cited here and in our forthcoming paper.

Regarding the great importance of Education to improve economic development we make some additional comments in the next section before presenting the main conclusions of this article.

5. Conclusions

Many researchers have shown a clear concern over the last few decades for Latin American development, but they are far from unanimous about the relative importance and priority of the different measures proposed.

It is widely recognized that external debt crisis is one of the main causes of imbalances in the process of economic development, but the causes of this debt are not so widely analysed. We think that the external debt crises have a lot to do with the scarce development of industry and trade at area level and, at a lower extent at international level. We think that Latin American countries should advance a lot in economic integration, with moderate protectionism compatible with an open economy. In next reports we will analyse in more detail these questions.

The deepest causes of the economic differences between the two richest countries of America: USA and Canada, with Latin America, include educational level of population in the first place, so we give to this factor the greatest importance.

Of course there are other causes, sometimes also related with low levels of average education, that have to do with lack of efficiency

both in public and private sectors, such as those analysed in Cordeiro(1998), or in the report of the Inter-American Development Bank, IADB(2000) and other interesting contributions.

We think that the differences in electoral systems between USA and Canada and Latin American countries give a clear advantage to the Northern part of America, as in the majority of Latin American countries electoral systems should be revised to be more similar to the styles of democracy of USA, Canada, UK, France or similar systems, or mixed forms between majority and proportional systems like in Germany.

Usually the degree of satisfaction with proportional systems, have been very common in Latin American countries, which has been very low because the behaviour of those systems generally obey more to the internal powers of political parties than to the public opinion demands of society.

Some authors like North(1990) have analysed some aspects of the influence of religions in industrial development. Some of these authors have thought that the differences between religions should have something to explain these differences in the degree of social organization and in the incentives to investment and innovation, but we think that those differences are not directly related with religious differences between Protestantism and Catholicism, but indirectly.

As Goldin and Katz(2001) have very well remarked the main cause of USA economic leadership has been the improvement of education from the first times of their independence, because Protestantism was generally more open to spread schools and learning than other religions.

It is usually true because in Europe the experiences were very similar, as Nordic countries, where Christian Protestantism was dominant, reached general literacy and secondary studies long before than many European Catholic countries like Spain, Portugal, Italy or Ireland.

There are some important exceptions of countries like France, Austria, Belgium and Switzerland, where many Catholic regions reached several centuries ago, high levels of general education and socio-economic development.

From our point of view the main conclusions from these report on America are the following:

1) Many Latin American countries have educational levels lower than world average and fertility rates higher than world average, and it is of the greatest importance for future development to increase average years of schooling and increase expenditure on Education and international cooperation on this ground, in order to reduce the excessive fertility rates and to improve the rates of growth of real production.

2) Education is also a very important factor of production, contributing to improve human and social capital and to increase external trade and industrial production, therefore contributing to the improvement of service sectors through inter-sector relations.

3) The agriculture sector has a good level of production per inhabitant in the majority of Latin American countries in comparison with other countries and with the world average but the expansion potential of this sector is rather limited. Experience over the last few decades of the 20th century showed that increases from supply could not be followed by similar increases from demand, at world level, and this leads to undue reduction in prices with no profit for producers.

4) Industry is a sector with great possibilities of increase in Latin American countries and policies to improve their capacity for this should be addressed, taking into account the positive consequences that industrial increase has on the development of private and public services. On the other hand other important factors of industrial development need to be improved, especially the conditions that improve social cooperation, peace and reduction of high and uncontrolled risks, as they are of utmost importance for the necessary increase of investment.

5) Social improvements in public sector organisation, and transport infrastructures, simplification and harmonisation of successful rules among neighbouring countries, fostering common markets by area, are all good measures that together with increases in the education of a population will be of great help in achieving a hopeful future for the development of Latin American countries.

International cooperation, from USA, Canada, EU, Japan and other industrialized countries, is indeed necessary for these purposes.

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