

## **Brazilian Economic Performance Since 1500: A Comparative View**

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Brazil is the fifth largest country in population and area. In terms of GDP it is the ninth largest. Since 1500, population has risen more rapidly than any other country, and total GDP faster than any country except the United States. In 1500, the Brazilian population was the same as in Portugal. Now it is 17 times as big. The creation of such a large geopolitical entity is clearly something to celebrate on the anniversary of Cabral's landfall at Porto Seguro in April 1500.

Brazil has been favoured by soft political transitions compared to most other countries. The treaty of Tordesillas (1494) divided the Americas amicably between Portugal and Spain. Portugal got a slice 48 degrees West of the Greenwich meridian, but its present borders encompass nearly 3 times as much land - a situation peacefully endorsed by the Treaty of Madrid (1750). Most of the territorial gain was made by frontiersmen. The only substantial foreign invasion was the Dutch occupation of the Northwest (1630-54). Wars to preserve boundaries against French or Spanish incursions did not involve much effort, and the last territorial acquisition, the Acre territory, was by purchase from Bolivia. The biggest foreign war was with Paraguay (1865-70). This is in stark contrast with Mexico, which lost half of its territory in wars with the United States, or to European and Asian experience of wars over boundaries.

Another striking feature has been the ease of Brazil's domestic political transitions. Independence was gained with no significant struggle, the Portuguese crown prince becoming Emperor of Brazil in 1822. Slavery was abolished without a civil war in 1888. The Empire became a republic without a struggle in 1889. The Vargas dictatorship of 1930-45 began and ended with relatively little violence, and this was also true of military rule from 1964-85.

Brazil is a country with cosmopolitan roots, significant immigration and successful assimilation of Italians, Germans, Japanese, and Lebanese as well as the original mix of Portuguese settlers and African slaves. It is a frontier country with a high degree of self confidence, without a chip-on-the-shoulder feeling of exploitation by powerful neighbours. It is a

looser federation than many big countries, with several large cities and an intellectual life which is multipolar. Brazilians have clearly created a distinctive and vigorous culture and civilisation.

So far I have concentrated on the good news, but the picture is not entirely rosy.

(a) In the first place, we should note that Brazilian success in raising per capita real income is not particularly distinguished. Per capita income increased about 14 fold from 1500 to 1998 which is about the same as the Latin American average, and better than the record in Eastern Europe, most of Asia and Africa. But in 4 new countries which are North European offshoots (USA, Canada, Australia and New Zealand), per capita income increased nearly 66 fold from the same starting level as Brazil. Brazilian income per head is about a fifth of what it is in these 4 countries.

The countries of Western Europe have increased their per capita income 24 fold since 1500, and their average level is more than three times as high as in Brazil, even though they have operated with less abundant natural resources, and have had their development interrupted by major wars.

The experience of some countries within Asia also strongly suggests that Brazil could have done better. Japan has increased its per capita income by 39 fold since 1500 and 28 fold since 1870 (when its level was below that in Brazil). Japanese per capita income is now above that in Western Europe, and more than 3.5 times that of Brazil.

(b) A second disturbing feature of Brazilian development has been very wide disparities in income, wealth, education and economic opportunity. These have been more extreme than in Europe, North America and Asia. The social structure still has strong echoes of the colonial period, when there was great inequality in access to landed property, and the bulk of the labour force were slaves. The continued neglect of popular education is very marked even by Latin American standards and has hampered the growth of labour productivity. Another aspect of inequality is regional. The per capita income disparity between the poorest state Piaui and the federal district is about 7:1. The only other countries with this degree of regional disparity are Mexico and China.

(c) A third characteristic of Brazil is its heritage of dirigisme, fiscal irresponsibility, very high rates of inflation, debt default or delinquency, and protectionism which restricted access to

the world economy. The economic policy mix over the long run has been expedient rather than strategic.

The long term picture suggests that Brazil might have had better performance if it had given greater priority to growth of per capita income rather than population. However, when we try to decide whether and how far Brazil has underexploited its potential for growth of income and welfare, we must consider changes in the rhythm of economic advance. Growth has been uneven, and a five-century overview provides too broad a brush.

One can discern 5 phases of Brazilian development:- the colony (1500-1822), the Empire (1822-1889), the oligarchic republic (1889-1929), the developmentalist era (1929-80), and the present era of "adjustment" - perhaps more accurately described as "maladjustment" (1980 onwards).

In the colonial period, per capita growth was slow, but no worse than in the rest of the world.

Per capita growth accelerated mildly in the Empire and population growth rate quadrupled. However Brazil still had a seigneurial economy based on slavery and natural resource advantage, and its momentum of per capita progress was decidedly slow by world standards - about one seventh of the pace attained in the USA from 1820 to 1890.

In the oligarchic republic, the social system changed somewhat in the south of the country, population growth was boosted by immigration, railways and steam shipping increased Brazil's links with the world economy. Per capita growth, though modest, was more than four times as fast as in the imperial period - but the USA grew twice as fast in per capita terms.

The developmentalist phase from 1929 to 1980 was sparked off by the collapse of the world economy and of Brazil's exports in 1929-33. The nature of the political regime and economic policy changed drastically. There was default on foreign debt, exchange rate manipulation, and restrictions on foreign trade. Import substituting industrialisation was fostered by protection and creation of state enterprises. Industrial workers were included in the political clientele of the Vargas regime by social security benefits, the powers of the central government were greatly enhanced and that of the states was reduced.

The policy instruments of this dirigiste and autarkic regime were crude and improvised, but they helped to make the 1930s and 1940s more prosperous in Brazil, and in most of Latin America, than in the rest of the world. For this reason, it seemed legitimate to continue this policy mix after the war. It was, in fact, very far removed from neoliberal approaches which were developing in Western Europe under the influence of the Marshall Plan.

Policy attitudes and instruments varied over the 5 decades of "developmentalism" and their degree of sophistication increased - most notably the generalised indexation which permitted Brazil to "cohabit" with inflation. However, the ideas and instruments of policy under Kubitchek and the military regime had a much greater family resemblance to those of Vargas than to the neoliberalism of the oligarchic republic.

Thanks to a booming world economy, and a significant inflow of foreign capital, this policy mix produced a per capita income growth which averaged more than 3 per cent a year for five decades. It was a period of catch-up with a reduction in the gap between Brazilian and US income levels. But there was little narrowing of the income spread between rich and poor in Brazil, or of the social spread in access to education or land ownership.

This policy regime ran into major problems in the late 1970s with the sharp slowdown in the world economy, and the deflationary measures which Western countries applied to break the momentum of their inflation and deal with the oil shock. Brazilian growth was sustained for three or four years by overheated demand which brought hyperinflation, growing fiscal deficits, a rise in foreign indebtedness and payments crisis. The mechanisms for indexing wages, financial markets and exchange rates collapsed. The final blow came from the international capital markets. In 1977-80 the real annual rate of interest on floating debt averaged -8.7 per cent. In 1981-3 it rose to +15.7 per cent. Mexico sparked off a freeze in bank lending to Latin America by its 1982 debt default.

The crisis of the late seventies and early eighties produced a shock for Brazil and Latin America which was as powerful in its effect as the crisis of the early 1930s. Since 1980, Brazil like other important Latin American countries has moved from military rule to democratic government and towards a new neoliberal policy mix (of the type pioneered by Chile) in order to fit into a world economy which is growing more slowly, has much less inflationary momentum, where trade and capital markets are freer, and norms of behaviour are prescribed by the IMF and World Trade Organisation.

The adjustment process has not been smooth, and the pace of economic advance has been shockingly slow. In the past two decades (as shown in Table 4) per capita growth in Brazil has averaged 0.27 per cent a year. At this pace it would take more than 250 years to double Brazilian incomes.

Fortunately, there is reason to hope that some of the most difficult policy adjustments of the transition period are over and that Brazil is moving towards a more satisfactory growth path.

However, it is not at all clear that Brazil has done enough to achieve rapid catch-up on the income levels achieved in North America or Western Europe, or to reduce the extreme inequalities in income and opportunity which have characterised its past development.

One of the major lessons of Asian experience is that prospects for rapid growth are greatly enhanced by improvements in education. Better education is also a major instrument for improving the life chances of the poorest part of the population. The average level of education in Brazil is low by Latin American standards, and abysmal by those of the fast growing Asian countries. Improvement in this domain should clearly be a major priority in any strategy for long term growth.

Table 1  
World Growth Experience 1500-1998

	1500	1820	1998
Per Capita GDP (1990 PP converted dollars)			
Western Europe	767	1,228	17,949
Western Offshoots	400	1,201	26,272
Latin America	416	674	5,795
Eastern Europe	482	700	4,355
Asia	557	580	3,565
Africa	400	415	1,361
World	556	667	5,710
Population (millions)			
Western Europe	57.3	132.9	387.8
Western Offshoots	2.8	11.2	321.9
Latin America	17.5	21.2	507.6
Eastern Europe	30.5	91.2	411.8
Asia	276.4	709.7	3,518.2
Africa	46.0	74.2	759.9
World	430.4	1,040.5	5,905.4
GDP (billion 1990 PP converted dollars)			
Western Europe	43.9	163.2	6,960.8
Western Offshoots	1.1	13.5	8,456.1
Latin America	7.3	14.3	2,941.9
Eastern Europe	14.7	60.9	1,793.3
Asia	154.0	411.5	12,534.6
Africa	18.4	30.8	1,033.9
World	239.4	694.1	33,720.5

Table 2

Economic Characteristics of Top Nine Countries, 1998

	GDP in billion 1990 PP dollars	Per Capita GDP in 1990 PP dollars	Population million	Percent of World GDP	Percent of World Population
USA	7,394.6	27,480	269.1	21.9	4.6
China	3,873.4	3,117	1,242.7	11.5	21.0
Japan	2,581.6	20,412	126.5	7.7	2.1
India	1,702.7	1,746	975.0	5.0	16.5
Germany	1,460.1	17,80	82.0	4.3	1.4
France	1,150.1	19,544	58.8	3.4	1.0
UK	1,108.6	18,714	59.2	3.3	1.0
Italy	1,022.8	17,953	57.0	3.0	1.0
Brazil	926.9	5,459	169.8	2.7	2.9
Total Top Nine	21,220.8	6,980	3,040.1	62.8	51.5
World	33,720.5	5,710	5,905.4	100.0	100.0

Note: 1990 PP dollars are estimated by converting national currencies by purchasing power parities instead of exchange rates. The purchasing power parity estimates were derived from the ICP (International Comparisons Programme) of OECD, Eurostat and the United Nations).

Table 3  
Confrontation of Brazilian and US Economic Performance in the  
Five major Phases of Brazilian Development, 1500-1998

**Brazilian Growth Record**

	Population (000s)	GDP (million 1990 PPP \$)	GDP Per Capita (1990 PPP \$)
1500	1,000	400	400
1820	4,507	3,102	688
1890	14,199	11,267	794
1929	32,894	37,415	1,137
1980	122,936	639,093	5,199
1998	169,807	926,919	5,459

**Growth Rates in Each Phase (annual compound rate)**

	Population	GDP	GDP Per Capita
1500-1820 Colony	0.47	0.64	0.17
1820-90 Empire	1.65	1.86	0.21
1890-1929 Oligarchic Republic	2.18	3.13	0.92
1929-80 Developmentalist Era	2.62	5.72	3.03
1980-98 Era of "Adjustment"	1.81	2.09	0.27
1500-1998	1.04	1.57	0.53

**US Growth Record, 1500-1998**

	Population (000s)	GDP (million 1990 \$)	GDP Per Capita (1990 \$)
1500	2,000	800	400
1820	9,981	12,548	1,257
1890	63,302	214,714	3,392
1929	122,245	843,335	6,899
1980	227,757	4,230,558	18,575
1998	269,092	7,394,598	27,480

**US Growth Rates in Each Phase (annual compound rate)**

	Population	GDP	GDP Per Capita
1500-1820	0.50	0.86	0.36
1820-90	2.67	4.14	1.43
1890-1929	1.70	3.57	1.83
1929-80	1.23	3.21	1.96
1980-98	0.93	3.15	2.20
1500-1998	0.99	1.85	0.85



Table 4

Comparative Performance in Latin America, West Europe and Asia, 1929-98

	Population (000s at midyear)			(annual compound growth rate)	
	1929	1980	1998	1929-80	1980-98
Argentina	11,592	28,237	36,265	1.76	1.40
Brazil	32,894	122,936	169,807	2.62	1.81
Chile	4,306	11,094	14,788	1.87	1.61
Colombia	7,821	26,583	38,581	2.43	2.09
Mexico	16,875	68,686	98,553	2.79	2.03
Peru	5,294	17,295	26,111	2.35	2.31
Uruguay	1,685	2,920	3,285	1.08	0.66
Venezuela	3,259	14,768	22,803	3.01	2.44
8 Country Total	83,726	292,519	410,192	2.48	1.90
12 West Europe	225,333	305,147	321,885	0.60	0.30
56 Asia	1,113,551	2,508,039	3,516,411	1.66	1.74
	Per Capita GDP (in 1990 PPP dollars)				
Argentina	4,367	8,245	9,219	1.25	0.62
Brazil	1,137	5,199	5,459	3.03	0.27
Chile	3,396	5,738	9,756	1.03	2.99
Colombia	1,505	4,265	5,317	2.06	1.23
Mexico	1,757	6,289	6,655	2.53	0.31
Peru	1,619	4,205	3,666	1.89	-0.76
Uruguay	3,848	6,577	8,314	1.06	1.31
Venezuela	3,426	10,139	8,965	2.15	-0.68
8 Country Average	2,034	5,889	6,324	2.11	0.40
12 West Europe	4,634	14,057	18,778	2.22	1.62
56 Asia	758	2,036	3,565	1.96	3.16

Table 5

Inequality of Pretax Income of Households  
(top decile per capita income as multiple of 2 bottom deciles)

Japan (1969)	7.5	Brazil (1970)	20.0
Korea (1970)	7.6	Chile (1968)	21.2
Germany (1973)	10.5	Colombia (1974)	21.8
UK (1973)	9.1	Mexico (1969)	25.5
USA (1972)	14.9	Venezuela (1962)	25.0

Source: Maddison, Monitoring the World Economy, 1820-1992 (1995), p.52.

Table 6

Levels of Educational Performance  
(years of education obtained per person aged 15-64)

	1950	1992		1950	1992
Argentina	4.80	10.70	China	1.60	8.50
Brazil	2.05	6.41	Japan	9.11	14.86
Chile	5.47	10.93	Korea	3.36	13.55
Colombia	2.66	9.14	France	9.58	15.96
Mexico	2.60	8.22	Germany	10.40	12.17
Venezuela	2.21	10.18	USA	11.27	18.04

Source: Maddison (1995), p.77. Primary education was given a weight of 1, secondary 1.4 and higher 2, in line with evidence on the relative earnings associated with different levels of education.

Table 7

Experience of Inflation  
(annual average rate of price change)

	1950-73	1973-80	1980-94	1994-98
Argentina	30.5	189.1	629.1	1.3
Brazil	31.6	47.0	748.6	19.4
Chile	48.6	236.2	22.3	6.7
Mexico	5.7	22.5	58.9	26.4
Venezuela	1.8	11.3	28.9	58.5
Germany	2.7	4.8	2.8	1.6
Japan	5.2	9.7	2.1	0.6
USA	2.7	8.9	4.5	2.0

Source: A. Hofman, The Economic Development of Latin America, (2000) p.19 updated from IMF.

Table 8

Merchandise Exports as Percent of GDP in 1990 Prices 1870-1998

	1870	1913	1929	1950	1973	1998
France	4.9	8.2	8.6	7.7	15.4	29.8
Germany	9.5	15.6	12.8	6.2	23.8	38.2
Netherlands	17.5	17.8	17.2	12.5	41.7	63.7
UK	12.0	17.7	13.3	11.4	14.0	25.6
Spain	3.8	8.1	5.0	3.0	5.0	23.6
USA	2.5	3.7	3.6	3.0	5.0	10.8
Mexico	3.1	9.1	12.5	3.0	1.9	10.5
Brazil	11.5	9.2	6.9	3.9	2.5	5.4
China	0.5	1.2	1.8	1.0	1.6	4.9
India	2.5	4.7	3.7	2.6	2.0	2.2
Japan	0.2	2.4	3.5	2.2	7.7	13.6
World	5.0	8.6	9.0	6.8	11.1	17.2

Table 9

Rate of Growth in Volume of Merchandise Exports 1890-1998  
annual average compound growth rate

	1870-1913	1913-50	1950-73	1973-98
France	2.8	1.1	8.2	4.6
Germany	4.1	-2.8	12.4	4.4
Netherlands	2.3	1.5	10.4	4.1
UK	2.8	0.0	3.9	4.4
Spain	3.5	-1.6	9.2	9.0
USA	4.9	2.2	6.3	6.0
Mexico	5.4	-0.5	4.3	10.9
Brazil	1.9	1.7	4.7	6.7
China	2.6	1.1	2.7	11.8
India	2.4	-1.5	2.5	5.6
Japan	8.5	2.0	15.4	5.3
World	3.4	1.3	7.0	4.7

Table 10

Growth Rates of Top Nine Countries, 1500-1998  
(annual average compound growth rates)

	1500-1820	1820-1998	1820-1950	1950-73	1973-98
Per Capita GDP					
Brazil	0.17	1.18	0.71	3.76	1.31
USA	0.36	1.70	1.57	2.45	2.01
France	0.18	1.56	1.13	4.05	1.61
Germany	0.14	1.61	1.02	5.02	1.60
Italy	0.00	1.57	0.88	4.95	2.11
UK	0.27	1.34	1.08	2.44	1.79
China	0.00	0.93	-0.24	2.86	5.41
India	0.00	0.67	0.12	1.40	2.91
Japan	0.08	1.93	0.82	8.05	2.28
World	0.06	1.20	0.90	2.93	1.32
Population					
Brazil	0.47	2.04	1.90	2.88	2.06
USA	0.50	1.87	2.12	1.45	0.96
France	0.23	0.36	0.22	0.96	0.49
Germany	0.23	0.67	0.78	0.63	0.15
Italy	0.20	0.58	0.65	0.66	0.16
UK	0.53	0.58	0.67	0.48	0.21
China	0.41	0.67	0.28	2.10	1.38
India	0.20	0.87	0.42	2.11	2.10
Japan	0.22	0.79	0.77	1.15	0.61
World	0.28	0.98	0.68	1.92	1.66

Table 11

Characteristics Affecting Labour Input in 1992

	Persons Aged 15- 64 as Percent of Population	Females as Percent of Labour Force	Ratio of Employment to Population	Labour Input Per Head of Population in Hours
Brazil	61.7	28.0	37.5	697
USA	65.5	45.0	46.6	741
France	65.6	44.1	39.3	606
Germany	69.2	41.7	44.9	702
Italy	68.7	37.2	44.3	660
UK	64.9	43.1	44.0	656
China	67.1	43.0	50.5	1,110
India	59.6	25.0	38.7	852
Japan	69.7	40.7	51.8	970

Source: A. Maddison, Monitoring the World Economy 1820-1992, OECD, Paris, 1995, pp.244-5.