

2016 Billionaires - Some Bruises, and yet 8% of Gross World Product

Giga-Rich & Nano-Poor

Year after year the world displays further instances of the same degrading show of lavish riches rubbing shoulders with extreme poverty. In 2016, we can find a number of low GDP (gross domestic product) per capita countries such as Vietnam, Tanzania, Swaziland, Algeria, or Colombia boasting their own billionaires. That may be offensive enough, but what comes across

as downright outrageous is the coexistence in some countries of individual billionaires and a swarm of people trudging in utmost poverty.

Consider the sample of countries in the table below (Billionaires and Extreme Poverty). They all maintain a collection of billionaires, and quite a shining one in the cases of India, Indonesia, China and Brazil.

Those billionaires possess vast wealth, weighing from 4% to 11% of the country's GDP. Occasionally, the tabloid press reports on the glittering social parties given by

some of their illustrious members. But it is nowhere reported that they might experience difficulties to sleep peacefully, or that they might suffer from painful stomach ulcers caused by an uneasy conscience. The knowledge that crowds of their country fellows ramble around, desperately trying to survive another day, neither brings them insomnia, nor impairs their digestion.

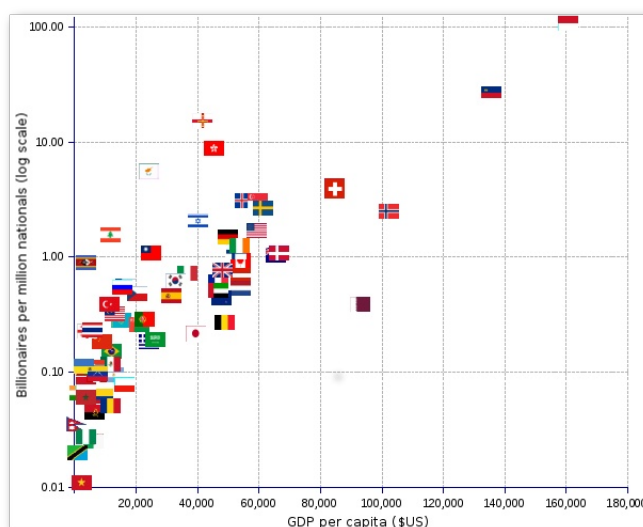


Fig.1: Billionaires per capita as a function of GDP per capita.

Can More Than 700 Million Extreme Poor Pass Unseen?

You may argue that billionaires cannot see the wretched crowds from their palaces' terraces. That does not go. There is no way to conceal the hundreds of millions of human beings living on less, sometimes a lot less (see poverty gap above) than \$1.90 per day. There is no way to hide away 53% of the population in Nigeria or 21%

in India. They exist, they are everywhere, one cannot avoid bumping into them. It seems rather that this bipolar distribution of wealth is viewed as a law of nature by all

Country	Number	Billionaires' Net Worth as % of GDP	Percent of population below \$1.9/day	Poverty Gap at \$1.9/day
Nigeria	5	4%	53.5	21.8
South Africa	6	6%	16.6	4.9
India	84	10%	21.3	4.3
Indonesia	20	5%	15.9	2.9
Philippines	11	11%	13.1	2.7
China	251	5%	11.2	2.7
Brazil	31	5%	4.9	2.8

Source : World Bank – PovcalNet, 2016.

concerned, a law of nature that is taken as a blessing by the happy few, and is perceived as an utter misfortune by the innumerable destitute people.

The chart (Fig. 1, see also Table 1) shows the scatter of billionaires per million inhabitants (y-axis, logarithmic scale) as a function of the country's GDP per capita (x-axis). The lower left area is crowded by countries with low GDP per capita that generally have not so many billionaires, e.g. Vietnam, Tanzania or Nepal. The central area of the chart is filled with rich countries such as the United Kingdom, France, Germany, that have a sizable list of billionaires. At the top right one finds the exceptional cases of extremely small countries like Monaco or Liechtenstein that specialized as tax shelters for super-rich people.

It is easy to visually grasp the meaning of the scatter distribution. Common sense should lead us to expect that billionaires prosper in high-income countries, those that assemble in the center of the chart. They actually do, and there is no surprise here. The disturbing fact is conveyed by the densely populated lower left corner of the chart. It is disturbing because it exposes the fact that billionaires can thrive also in poor or even very poor countries. Putting it differently, billionaires may flourish in all environments, in rich ones of course, but also in indigent ones. Indeed, this is corroborated by the statistics. There is only a weak linear correlation between the number of billionaires per million and GDP per capita ($r = 0.61$). The variation of GDP per capita can explain only 38% of the variation of the ratio of billionaires per million ($R^2 = 0.38$).

Epic New Century

The 21st century is a liberal provider of novelties in the economic and social fields. Since the middle of the 19th century, when

Marx and Engels published their Communist Manifesto, a relentless struggle of socialism against capitalism was engaged for roughly 150 years with uncertain results. Come the years 2000, and the whole scenery becomes blurred. Capitalism puts on its fancy, gleaming neoliberal garments, and throws its old Christian, benevolent, paternalistic clothes away for good. As for socialism, one would be hard pressed to reconcile the venerable socialist ideals of brotherhood, equality, solidarity and fairness to their contemporary implementation by self-named "communist" societies.

Where Opposites Do Meet

Two countries epitomize this transformation process. The United States remain the archetype capitalistic billionaire nation: high GDP per capita (\$ 59,503), and a record 540 billionaires (an index of 1.67 billionaires per million people). The flip side of such a glamorous tableau is a widening gap between rich and poor, the growing masses of degraded poor abandoned to themselves, cut off from federal food, health, and shelter subsidies, the dire prospects for those living on uncertain labor-wages, and the free fall of middle classes to poverty levels.

The "socialist" counterpart is China, an alleged communist society, ruled by a strong communist party, and not a bit self-conscious of its revolutionary legends. There is no need to detail the heavy economic role that China plays in the contemporary world. The meaningful point is that China, second only to the United States, is the country with most billionaires, a total of 251 weighing 5% of the country's GDP. There is, however, a sharply contrasting side to this prodigal wealth. A total of 155 million people, or 11.2% of the entire population, live in extreme poverty, surviving

on less than \$ 1.90/day. Normal people would feel uncomfortable to bring into agreement such a sickening state of affairs with the motto "From each according to his ability, to each according to his needs" that allegedly encapsulates the communist goals. Normal people should, but people in the central committee of China's communist party do not.

The End of History Did Not Happen Yet

By the end of the 20th century it was fashionable to earnestly declare the "end of history", asserting that the spread of free market capitalism and of its lifestyle signaled the ultimate form of social organization. The initial decade and a half of the 21st century quickly exposed the construct as a trifle. We have undisputed evidence that, far from reaching its end, history is taking a turn that opens into a wide array of possible forms of human government, some of which do not look very palatable. Just to mention a few examples: the emergence of asymmetric wars successfully challenging the military might of

the big world powers; the worldwide spread of small group or individual terrorism that governments find impossible to curb; the departure from such basic rights as the right to due process of law, to freedom of movement, to freedom of expression or to privacy, all sacrificed on the altar of the security of the state; the deepening estrangement between the people and the officeholders; the long-lasting financial and economic crisis that is ruining the social fabric, while exposing the fallacy of the free-market ideology; or the uppermost threat posed by the rapid man-made wreckage of planet earth.

Against such an agitated background it is sensible to prognosticate that sooner or later people will rise to their feet and demand urgent and primary changes. Since it chiefly affects the everyday life of billions of people, the dichotomy between super-rich and deep-poor is bound to become a source of exasperation, and to effect structural and policy volte-faces liable to turn the social status upside down. ☑

Upward Trend

Unfolding crisis, unemployment, over-indebtedness, poverty, precariousness — that is today's cocktail for the commoner. For billionaires, courtesy of their tooth fairy, the road is much smoother and unencumbered. The number of billionaires (Fig.2, see also Table 2) grew from 423 in 1996, to 1,810 in 2016 (7.5% annual average growth, or a 9-year doubling time). Their net worth swelled in parallel from \$US 1,393 billion (constant, 2009=100) to \$US 5,906 billion (7.5% annual average growth).

Funny enough, billionaires replicate in-house

what they callously imposed on the world at large: the rising polarization of the wealth distribution. A handful of arch-wealthy grab the lion's share, while the crowd of lesser billionaires are stuck at the 1 billion threshold. Currently, the top 15% of billionaires own 50% of the total billionaires' net worth, while the lowest 15% own only — if the adverb makes sense in the context of giga-dollars — 4.5% or 11 times less.

Ruin for Some, Triviality for Others

The world did not, as yet, regain health from the financial and economic downturn that

knocked it out in 2008. The living conditions of the majority of the people have been severely hampered: 700 million people or 12.7% of the world population survived on less than \$1.90 per day in 2012; 122.3 million people, or 24.4% of the population in the rich European Union (28

members) were at risk of poverty or social exclusion in 2014. Across the planet millions of people are falling below the poverty line (generally placed at 60 percent of the average national income) victimized by the evanescent labor wages, the rising unemployment, the evaporation of jobs, and the increasingly delinquent state.

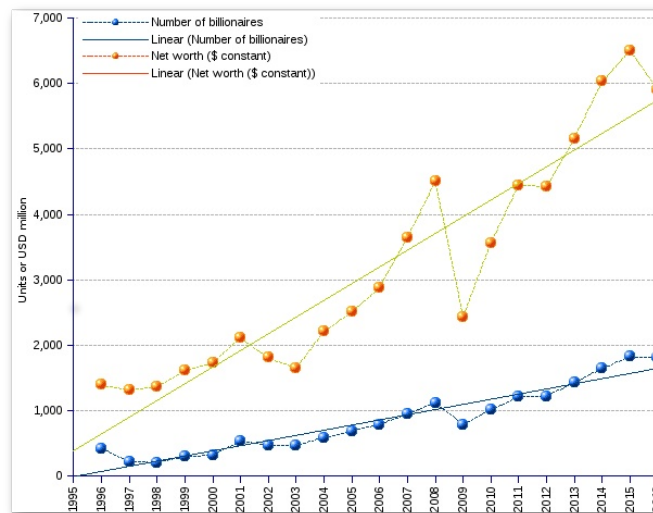



Fig.2: Trends of billionaires' number and wealth, 1996-2016.

Billionaires are not immune to crises but, contrary to the average man in the street, they recover well and fast. While the world endures the pain of a sluggish economic engine, billionaires aptly redirected to their balance sheets a growing chunk of the assets produced by the common people, thus achieving the expansion of their net worth at a

much faster rate than the world output. They are liable to consider it as a justified reward for their talents and energy. The hardheaded will retort that the whole affair boils down to a clear case of relative strengths — the stronger wins and the winner takes all. 

Monaco and Swaziland in the Same League

The bigger the GDP (gross domestic product) of a country, the wealthier the billionaire class. Right? Yes, that is correct. The US, Germany, Japan have a plateful of super-rich that weigh \$US billions aplenty. Now, look at it from the angle of the GDP per capita. The higher it is, the heavier the billionaires' share, right? No — this time you have got it wrong. Swaziland with a low GDP per capita of \$US 3,717 can have a billionaire's wealth weighing 87.9% of the country's GDP, a performance only exceeded by the unique and very rich Monaco. The sleight of hand is that wealth and income are

so unevenly distributed that billionaires' net worth bears close to zero relationship to the GDP per capita.

The chart (Fig.3, see also Table 3) shows the scatter of the billionaires' net worth as percent of GDP (y-axis), as a function of the country's GDP per capita (x-axis). The billionaires' wealth is strongly correlated to the country's GDP ($r = 0.92$, $R^2 = 0.85$), but not the least with the GDP per capita ($r = 0.10$, $R^2 = 0.01$). In other words, the average financial condition of people, as measured by the GDP per capita, has no bearing on the relative weight of the billionaires' wealth.

Impecunious economies can harbor huge private fortunes

The 2016 world billionaires are a set of 1,810 individuals, owning net assets worth of \$US 6,5 trillion or about 8% of the world's total output. Their distribution is uneven. Net worth weighs between 0.4% of the country GDP for Romania, and 117% for Monaco. The mass of data points is concentrated close to the x-axis — indeed, fifty percent of billionaires' wealth weighs less than 5.1% of GDP, although the billionaire citizens of Liechtenstein, Cyprus, Guernsey, Hong Kong, Swaziland and Monaco hold assets that are worth between 49% and 117% of their home country GDP.

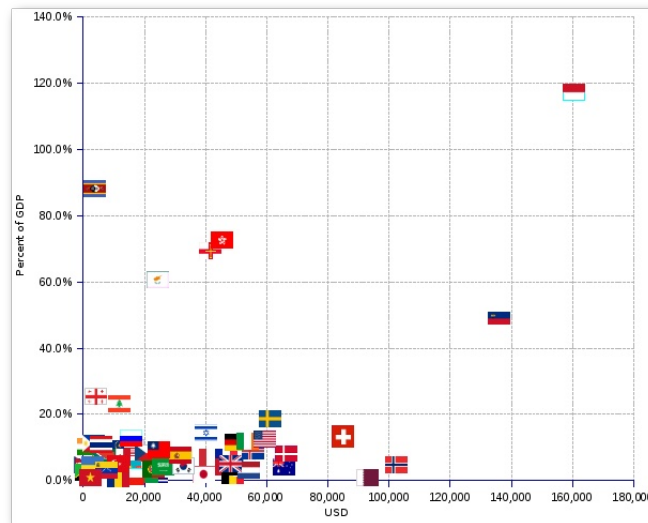


Fig.3: Billionaires' wealth in percent of GDP, as a function of the country's GDP per capita.

The distribution of billionaires' wealth provides one more instance of the overall inequality pattern that has been identified elsewhere (http://stats.areppim.com/stats/stats_ginixparam.htm) for the distribution of incomes. Many impecunious economies, for example Vietnam, India, Tanzania or Nepal, harbor huge private

fortunes in spite of their minuscule GDP per capita, far below the listed countries average and median values. In the last two countries, GDP per capita is below the \$US 1,000 mark, but they have billionaires owning fortunes worth 1.3 million to 1.4 million times as much. No need to comment, the facts are a strong enough indictment. 🚫

Billionaires' Wealth Upwards Only

World billionaires' net worth as percent of the gross world product (GWP) has been on a fast ride since 1996, as highlighted by the trend (red regression line) for the period 1996-2016 (Fig.4, see also Table 4). In 1996 the whole world should have to work 8 solid days to produce an output equal to the total net worth of the then existing billionaires. In 2016 the world would have to contribute an additional 10 workdays, bringing these to 18 days, to match the wealth of the current 1,810 billionaires.

Some highlights

Billionaires have a knack for grabbing growing shares of the world's wealth. The relative weight of billionaire net worth in constant US\$ follows an upward path from 3.5% of GWP in 1996 to 7.9% in 2016, corresponding to an annual average growth rate of 4.2% — considerably faster than the 3.3% annual average growth of real (inflation discounted) GWP. To put it plainly, billionaires have been deflecting to their balance sheets a growing share of the world's output — indeed their cut increases annually about one percent

point faster than the world product, crises or no crises.

More bluntly, the whole working world have been prodigally letting go, year after year, of a bigger chunk of their output to fatten the wallets of a handful of highly privileged individuals. If this transfer to the richest were instead directed to the extremely poor — the portion of the 700 million extremely poor people that fall in the poverty gap — a major step towards eliminating extreme poverty would have been accomplished. Unfortunately, regular people, contrary to the billionaire breed, tend to forget that charity begins at home.

Billionaires form a very exclusive club. A group of 1,810 people or 0.000024% (24 per hundred million) of the 7.405 billion world population own 7.9% of the world's annual output. They numbered 423 or 7 per hundred million in 1996, which means that the club membership has been growing at an average rate of 7.5% per year, doubling in size every 9 years. By contrast, the world population grew only by 1.2% per year during the same period.

The billionaire club includes some heavyweights and numerous comparatively lightweights. The average fortune is 3.3 billion real US\$, but 50% of the members have assets below the median 1.9 billion. The top 5% own 30% of the total net worth, thus mimicking the worldwide inequality pattern of which they astutely reap the benefits.

Crisis exist indeed, and they are a veritable affliction for common people. For billionaires, however, they are a mere flash in the pan, if not an helpful lever to push their fortunes further up. Both the 2001 dot.com burst and the 2008 global financial meltdown have been quickly outdistanced. From 2008 to 2009 the billionaires' total net worth plunged -2 trillion or

-46% in real US dollars, but from 2009 to 2015 it regained its previous upwards trend, growing by 4 trillion or 67%.


The 2015 depression has caused murderous commotion among world billionaires, to an extent unparalleled since 2009. In 2016, 221 billionaires got wiped out of the billionaire list, of which 42 from China, 25 from the United States, 23 from Brazil, 19 from Russia and 15 from India — a sure sign that the crisis is global, spreading over the once-vaunted "BRIC" (Brazil, Russia, India, China) economies. Most of the 221 slots, however, were immediately filled in by new entrants with the result that, after consolidation of ousters and new entrants, the 2016 list is shorter than the 2015 one by only 16 slots.

A World Clockwork Going Berserk

In hindsight, the 2008 crisis looks like the initial tumor of a metastatic cancer that has been spreading alarmingly thereafter. Nothing seems to work properly in the world economy anymore. Global economic uncertainty is peaking in this present time, opening the way to the ominous sluggishness of both consumption and investment. The skies become the more menacing as the monetary policies of zero or negative interest rates, and of the germane increases of the money supply, courtesy of the central banks, keep flooding financial institutions with inexpensive capital that ends up overwhelmingly in profits for the already wealthiest. The profligacy of government spending, especially sterile defense spending, adds to the turbulence.

Symptoms of the metastasis are ubiquitous. The instability of international currencies. The equity-market pandemonium. The commodities debacle (oil at the top of the list). The creeping unemployment. The standstill of labor income. The climbing indebtedness of

both public and private economic agents. The shrinking redistribution by the state. All of the above impact the poor as well as the wealthy. But they come harder on the regular consumer

and the regular taxpayer, rendering their lives more difficult and more precarious. Billionaires, as a caste, have demonstrated their power to stand the test virtually unscathed. 

Billionaires by Nation 2016								
Nation	Population (million)	Billionaires			GDP		Extremely Poor ⁽¹⁾	
		Net Worth (\$US billion)	Number	Per million	\$US billion	GDP per capita (\$US)	Percent of population below \$1.9/day	Poverty Gap at \$1.9/day ⁽²⁾
Algeria	40.224	3.1	1	0.02	248.5	6,179 n/a ⁽³⁾	n/a	
Angola	22.750	3	1	0.04	152.0	6,682	30.1	<2
Argentina	42.914	9.2	4	0.09	556.0	12,956	9.6	1
Australia	24.169	61.7	25	1.03	1,589.5	65,768 n/a	n/a	
Austria	8.594	29	6	0.7	465.7	54,192 n/a	n/a	
Belgium	11.310	7.5	3	0.27	554.1	48,991 n/a	n/a	
Brazil	206.081	135.1	31	0.15	2,468.7	11,979	4.9	2.8
Canada	36.182	112.4	33	0.91	1,956.9	54,056 n/a	n/a	
Chile	18.002	29	10	0.56	297.7	16,538 <2	<0.5	
China	1,381.134	593	251	0.18	12,235.1	8,859	11.2	2.7
Colombia	48.776	13.6	3	0.06	453.6	9,300	6.1	2.5
Cyprus	0.909	13.4	5	5.5	22.2	24,415 n/a	n/a	
Czech Republic	10.565	17.8	5	0.47	216.7	20,511 <2	<0.5	
Denmark	5.648	29.4	6	1.06	375.5	66,481 n/a	n/a	
Egypt	88.823	14.2	6	0.07	365.9	4,120 n/a	n/a	
Finland	5.522	10.5	6	1.09	291.9	52,866 n/a	n/a	
France	64.538	212	39	0.6	3,026.5	46,895 n/a	n/a	
Georgia	4.443	4.8	1	0.23	18.9	4,250	11.5	3.4
Germany	81.100	469.1	120	1.48	4,062.9	50,097 n/a	n/a	
Greece	11.018	4.5	2	0.18	266.2	24,156 n/a	n/a	
Guernsey	0.066	1.9	1	15.13	2.7	41,495 n/a	n/a	
Hong Kong	7.347	241.3	64	8.71	333.3	45,370 n/a	n/a	
Iceland	0.327	1.6	1	3.06	18.2	55,583 n/a	n/a	
India	1,293.057	248.4	84	0.06	2,447.3	1,893	21.3	4.3
Indonesia	258.714	49.8	20	0.08	975.3	3,770	15.9	2.9
Ireland	4.877	30.7	6	1.23	262.3	53,785 n/a	n/a	
Israel	8.402	48.2	17	2.02	337.4	40,157 n/a	n/a	
Italy	60.495	150.8	43	0.71	2,223.1	36,749 n/a	n/a	
Japan	126.345	85.4	27	0.21	5,001.5	39,586 n/a	n/a	
Kazakhstan	17.947	9.3	5	0.28	277.0	15,434 <2	<0.5	
Lebanon	4.597	12.5	7	1.52	54.5	11,846 n/a	n/a	
Liechtenstein	0.038	2.5	1	26.58	5.1	135,897 n/a	n/a	
Malaysia	31.501	39.5	10	0.32	413.4	13,124 <2	<0.5	
Mexico	121.984	99.6	14	0.11	1,436.6	11,777	2.7	0.7
Monaco	0.038	7.1	4	106.01	6.1	160,690 n/a	n/a	
Morocco	33.827	3.2	2	0.06	131.8	3,896	3.1	0.6
Nepal	28.758	1.1	1	0.03	22.9	796	15	3
Netherlands	16.970	28.2	9	0.53	918.1	54,099 n/a	n/a	
New Zealand	4.611	9.1	2	0.43	220.2	47,753 n/a	n/a	
Nigeria	183.636	29.9	5	0.03	702.2	3,824	53.5	21.8
Norway	5.266	24.8	13	2.47	539.5	102,443 n/a	n/a	
Oman	3.956	1.5	1	0.25	83.3	21,061 n/a	n/a	
Peru	32.405	3.8	3	0.09	238.2	7,350	3.7	0.9
Philippines	103.451	41.5	11	0.11	369.2	3,569	13.1	2.7
Poland	38.536	7.9	3	0.08	629.7	16,341 <2	<0.5	
Portugal	10.509	7.8	3	0.29	241.3	22,959 n/a	n/a	
Qatar	2.622	2	1	0.38	244.3	93,167 n/a	n/a	
Romania	19.727	1	1	0.05	229.6	11,637 <2	<0.5	
Russia	143.700	282.6	77	0.54	2,235.6	15,557 <2	<0.5	
Saudi Arabia	31.861	34.6	6	0.19	839.8	26,357 n/a	n/a	
Singapore	5.535	44.5	17	3.07	331.4	59,867 n/a	n/a	
South Africa	55.161	21.8	6	0.11	369.3	6,695	16.6	4.9
South Korea	50.874	75.1	31	0.61	1,676.7	32,958 n/a	n/a	
Spain	46.292	113.2	21	0.45	1,469.1	31,735 n/a	n/a	
Swaziland	1.132	3.7	1	0.88	4.2	3,717	42	16.6
Sweden	9.862	112	26	2.64	604.5	61,297 n/a	n/a	
Switzerland	8.148	91.6	32	3.93	691.4	84,855 n/a	n/a	
Taiwan	23.547	54.1	25	1.06	588.3	24,985 n/a	n/a	
Tanzania	50.568	1.1	1	0.02	44.3	876	46.6	14.4
Thailand	69.166	44.9	16	0.23	417.8	6,040 <2	<0.5	
Turkey	78.967	45.4	30	0.38	910.9	11,536 <2	<0.5	
Ukraine	45.101	7.1	5	0.11	148.5	3,292 <2	<0.5	
United Arab Emirates	9.856	18.4	5	0.51	461.9	46,865 n/a	n/a	
United Kingdom	65.386	161.8	50	0.76	3,149.1	48,162 n/a	n/a	
United States	322.617	2399	540	1.67	19,196.5	59,503 n/a	n/a	
Venezuela	31.416	7.2	3	0.1	242.5	7,718	9.2	6.8
Vietnam	92.537	1.8	1	0.01	219.4	2,371	3.2	0.6
Total		6,482.6	1810					
Average		96.76		3.03		32,533		
Median		24.8		0.38		22,959		

R = 0.61 (Coefficient of correlation for Number of billionaires per million nationals-GDP per capita.)

R² = 0.38 (Coefficient of determination for Number of billionaires per million nationals-GDP per capita.)

⁽¹⁾ State of people living with an income lower than \$1.90/day. (http://stats.areppim.com/glossaire/poverty_def.htm).

⁽²⁾ Average difference between poor households' expenditure and the poverty line. (http://stats.areppim.com/glossaire/poverty_gap_def.htm).

⁽³⁾ n/a = not available.

Sources: Forbes List of billionaires, International Monetary Fund, World Economic Outlook Database, United Nations Population Division, World DataBank - The World Bank, World Bank - PovcalNet, CIA - The World Factbook.

Table 1: Billionaires by nation, 2016.

World Billionaires Trends 1996-2016					
Year	Number	Net Worth		Average ²	Median ²
		\$US billion current	\$US billion constant (2009=100) ¹		
1996	423	1,050	1,393	3.3	2.5
1997	224	1,010	1,317	5.9	3.8
1998	209	1,069	1,370	6.6	4.2
1999	298	1,271	1,612	5.4	3.6
2000	322	1,386	1,731	5.4	3.6
2001	538	1,729	2,111	3.9	2.3
2002	472	1,516	1,809	3.8	2.1
2003	476	1,403	1,650	3.5	2
2004	587	1,917	2,210	3.8	2.2
2005	691	2,236	2,509	3.6	2.2
2006	793	2,645	2,876	3.6	2.2
2007	946	3,452	3,641	3.8	2.2
2008	1,125	4,381	4,501	4	2.3
2009	793	2,415	2,433	3.1	1.8
2010	1,011	3,568	3,568	2	3.5
2011	1,210	4,496	4,442	2	3.7
2012	1,226	4,575	4,428	3.6	2
2013	1,426	5,432	5,163	3.6	2
2014	1,645	6,446	6,029	3.7	2.1
2015	1,826	7,063	6,499	3.6	1.9
2016	1,810	6,483	5,906	3.3	1.9
Average annual change rate	7.5%	9.5%	7.5%	-0.05%	-1.5%
Average annual change rate (1996-2008)	8.5%	12.6%	10.3%	1.6%	-0.9%
Average annual change rate (2009-2015)	14.9%	19.6%	17.8%	2.5%	1.1%
Average annual change rate (2015-2016)	-0.9%	-8.2%	-9.1%	-8.3%	-3.3%
¹ Adjusted by applying the previous year \$US GDP deflator index.					
² Average and median values relate to Net Worth in constant \$US (2009=100).					
source: Forbes List of Billionaires.					

Table 2: World billionaires - trends 1996-2016.

2016 Billionaire Net Worth						
as Percent of Gross Domestic Product (GDP) by Nation						
Nation	Number of billionaires	Net Worth Total (\$US current billion)	GDP (\$US current billion)	Population (million)	GDP per capita (\$US current)	Billionaire net worth as percent of GDP
Algeria	1	3.1	249	40.2	6,179	1.2%
Angola	1	3	152	22.8	6,682	2.0%
Argentina	4	9.2	556	42.9	12,956	1.7%
Australia	25	61.7	1,590	24.2	65,768	3.9%
Austria	6	29	466	8.6	54,192	6.2%
Belgium	3	7.5	554	11.3	48,991	1.4%
Brazil	31	135.1	2,469	206.1	11,979	5.5%
Canada	33	112.4	1,956	36.2	54,056	5.7%
Chile	10	29	298	18	16,538	9.7%
China	251	593	12,235	1381.1	8,859	4.8%
Colombia	3	13.6	454	48.8	9,300	3.0%
Cyprus	5	13.4	22	0.9	24,415	60.4%
Czech Republic	5	17.8	217	10.6	20,511	8.2%
Denmark	6	29.4	375	5.6	66,481	7.8%
Egypt	6	14.2	366	88.8	4,120	3.9%
Finland	6	10.5	292	5.5	52,866	3.6%
France	39	212	3,027	64.5	46,895	7.0%
Georgia	1	4.8	19	4.4	4,250	25.4%
Germany	120	469.1	4,063	81.1	50,097	11.5%
Greece	2	4.5	266	11	24,156	1.7%
Guernsey	1	1.9	3	0.1	41,495	69.3%
Hong Kong	64	241.3	333	7.3	45,370	72.4%
Iceland	1	1.6	18	0.3	55,583	8.8%
India	84	248.4	2,447	1293.1	1,893	10.1%
Indonesia	20	49.8	975	258.7	3,770	5.1%
Ireland	6	30.7	262	4.9	53,785	11.7%
Israel	17	48.2	337	8.4	40,157	14.3%
Italy	43	150.8	2,223	60.5	36,749	6.8%
Japan	27	85.4	5,001	126.3	39,586	1.7%
Kazakhstan	5	9.3	277	17.9	15,434	3.4%
Lebanon	7	12.5	54	4.6	11,846	23.0%
Liechtenstein	1	2.5	5	0	135,897	48.9%
Malaysia	10	39.5	413	31.5	13,124	9.6%
Mexico	14	99.6	1,437	122	11,777	6.9%
Monaco	4	7.1	6	0	160,690	117.1%
Morocco	2	3.2	132	33.8	3,896	2.4%
Nepal	1	1.1	23	28.8	796	4.8%
Netherlands	9	28.2	918	17	54,099	3.1%
New Zealand	2	9.1	220	4.6	47,753	4.1%
Nigeria	5	29.9	702	183.6	3,824	4.3%
Norway	13	24.8	539	5.3	102,443	4.6%
Oman	1	1.5	83	4	21,061	1.8%
Peru	3	3.8	238	32.4	7,350	1.6%
Philippines	11	41.5	369	103.5	3,569	11.2%
Poland	3	7.9	630	38.5	16,341	1.3%
Portugal	3	7.8	241	10.5	22,959	3.2%
Qatar	1	2	244	2.6	93,167	0.8%
Romania	1	1	230	19.7	11,637	0.4%
Russia	77	282.6	2,236	143.7	15,557	12.6%
Saudi Arabia	6	34.6	840	31.9	26,357	4.1%
Singapore	17	44.5	331	5.5	59,867	13.4%
South Africa	6	21.8	369	55.2	6,695	5.9%
South Korea	31	75.1	1,677	50.9	32,958	4.5%
Spain	21	113.2	1,469	46.3	31,735	7.7%
Swaziland	1	3.7	4	1.1	3,717	87.9%
Sweden	26	112	604	9.9	61,297	18.5%
Switzerland	32	91.6	691	8.1	84,855	13.2%
Taiwan	25	54.1	588	23.5	24,985	9.2%
Tanzania	1	1.1	44	50.6	876	2.5%
Thailand	16	44.9	418	69.2	6,040	10.7%
Turkey	30	45.4	911	79	11,536	5.0%
Ukraine	5	7.1	148	45.1	3,292	4.8%
United Arab Emirates	5	18.4	462	9.9	46,865	4.0%
United Kingdom	50	161.8	3,149	65.4	48,162	5.1%
United States	540	2399	19,197	322.6	59,503	12.5%
Venezuela	3	7.2	242	31.4	7,718	3.0%
Vietnam	1	1.8	219	92.5	2,371	0.8%
Average	27	97			32,533	12.7%
Median	6	25			22,959	5.1%
r = 0.92 (Coefficient of correlation Net Worth-GDP).						
R² = 0.85 (Coefficient of determination Net Worth-GDP).						
r = 0.10 (Coefficient of correlation Net Worth-GDP per capita).						
R² = 0.01 (Coefficient of determination Net Worth-GDP per capita).						
Sources: Forbes List of Billionaires. International Monetary Fund, World Economic Outlook Database. United Nations Population Division.						

Table 3: Billionaire's net worth as percent of GDP.

Billionaire Net Worth as Percent of Gross World Product 1996 - 2016								
Year ¹	World Billionaires					GWP (gross world product) ²		Billionaire Net Worth as percent of GWP
	Number	Net Worth (billion US\$ current)	Net Worth (billion US\$ constant, 2009=100) ³	Average (billion US\$ constant, 2009=100)	Median (billion US\$ constant, 2009=100)	(trillion US\$ current)	(trillion US\$ constant 2009=100)	
1995						30.3	40.3	
1996	423	1,049.5	1,393.3	3.3	2.5	31.1	40.6	3.5%
1997	224	1,010.0	1,316.8	5.9	3.8	31	39.7	3.2%
1998	209	1,069.1	1,370.4	6.6	4.2	30.8	39	3.5%
1999	298	1,270.9	1,611.6	5.4	3.6	31.9	39.9	4.1%
2000	322	1,386.1	1,731.2	5.4	3.6	32.9	40.2	4.3%
2001	538	1,728.6	2,111.0	3.9	2.3	32.7	39	5.3%
2002	472	1,515.5	1,809.5	3.8	2.1	34	40	4.6%
2003	476	1,403.3	1,650.2	3.5	2	38.2	44	4.1%
2004	587	1,917.2	2,210.4	3.8	2.2	43	48.3	5.0%
2005	691	2,236.2	2,509.2	3.6	2.2	46.6	50.6	5.2%
2006	793	2,645.5	2,875.9	3.6	2.2	50.5	53.2	5.7%
2007	946	3,452.0	3,640.8	3.8	2.2	56.8	58.4	6.8%
2008	1,125	4,381.0	4,500.9	4	2.3	62.3	62.8	7.7%
2009	793	2,414.7	2,433.0	3.1	1.8	77.6	77.6	3.9%
2010	1,011	3,567.8	3,567.8	2	3.5	64.5	63.7	4.6%
2011	1,210	4,496.3	4,442.1	2	3.7	71.4	69.1	7.0%
2012	1,226	4,574.5	4,427.9	3.6	2	72.7	69.1	6.4%
2013	1,426	5,431.8	5,162.6	3.6	2	74.7	69.9	7.5%
2014	1,645	6,446.5	6,028.8	3.7	2.1	77.6	71.4	8.6%
2015	1,826	7,063.2	6,498.7	3.6	1.9	81.5	74.3	9.1%
2016	1,810	6,482.6	5,905.8	3.3	1.9	86	78.3	7.9%
Average annual change rate	7.5%	9.5%	7.5%	0.1%	-1.5%	5.2%	3.3%	4.2%
¹ Year of publication of Forbes list of billionaires.								
² Forbes estimates are a snapshot of billionaire wealth as of the beginning of the year. We therefore relate billionaires' wealth to GWP of the preceding year.								
³ US\$ constant (2009=100) are estimated by applying the US\$ GDP deflator for the preceding year.								
Sources : Forbes List of World Billionaires, International Monetary Fund, World Economic Outlook Database, and CIA World Factbook.								

Table 4: World billionaires' wealth as percent of GWP.

References :

<http://stats.areppim.com/rich.htm>

see complete billionaire lists at http://stats.areppim.com/stats/links_billionairexlists.htm)