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Gold versus money. 1. An overview on main financial figures of world countries

Money without brains is dangerous,
Napoleon Hill, American author (1883-1970)

Gold reserves are considered as the most important and stable value defining the financial stability of a country. However, money in different convertible currencies is used for almost all financial operations in economic life of the world. Bankers establish everyday the conversion between currencies and gold price in view to sustain the true value of money. Important to point out that: (i) money tends to overcome more and more the gold reserves which substantiate the continuous increase of gold price; (ii) the main potentials driving financial/economic growth of a country are population, area and natural reserves. In the present study the first two potentials are considered, so all financial figures of a country are reported separately to its population and area.

The economic growth is defined by increasing of gold amount per citizen at four steps, namely:
- basic step is formally considered as $x = 0$ for which y(g Gold/citizen) $= 0$;
- the first step $x = 1$ represent the real gold reserve (G, first column in Table 1) in national banks reported to population: y in real grams of gold per citizen (RgG).
- the second step $x = 2$ corresponds to the all values (gold, G, national, foreign currencies and other values, V, usually expressed in USD or Euro) in the custody of national banks. These Total Reserves are also expressed in units (tonnes) of gold (TRG) and correspond to y in grams of gold per citizen (TRgG).

$$TRG = G + V = G + 100*(G/P) = G*(1+(100/P)) \tag{1}$$
$$P \text{ (\% of reserves, Table 1)} = 100*(G/V) \tag{2}.$$

- The third growing step $x = 3$ corresponds to all money and values coming in all banks of a country defining Gross Domestic Product (GDP) usually reported in USD for each country. Important to note that these money are not real money; banks have only a small amount of cash money in different currencies, but they have digital records of money transactions. GDP can be virtually converted in gold taking into account the daily price of gold and define the third level of financial growth y in virtual gram of gold per citizen:

$$VgG = 1000*GDP(\text{in } 10^9 \text{ USD})/(\text{population (in } 10^6)*39.51 \text{ (USD/g Gold))} \tag{3}$$

Figures 1-3 represent some relations between these quantities as reported to population and area. Table 2 gives the main financial figures as defined above for a series of world countries. It is important that natural financial and economic growth of a country consists in the following monotonous increase:

$$0 < RgG < TRgG < VgG \tag{4}.$$

Singapore is a particular case in all these representations, for instance $TRg \geq VgG$.
In almost all cases the financial growth is exponential:

$$y = a*x^b \tag{5}$$

where parameters (a, b) define the nature and amplitude of financial growth of a country (Table 3).
It is important to observe the associated standard uncertainties of these parameters, (u(a), u(b)). Although the correlation coefficients of nonlinear regressions are over 0.99, these uncertainties can make difference between more or less accurate/correct/stable financial growth of each country.

Figure 4 shows the relationship between these parameters for all considered countries defining a unitary/global mechanism of financial growth (a phylogenic rule of all countries). However, there are at least three distinct phylogenies corresponding to the developed, semi-developed and poor countries, respectively. This is an open way in defining richness/poorness.

Conclusion: although the financial growth of a country is based on gold reserve and the potential to buy gold, the global tendency is to make transactions with virtual money without coverage on gold and/or other real values. As a direct consequence due the fact USD is the main international money unit, US Reserve Bank is pushed on to print more and more money with virtual/conventional/symbolic value.

Table 1.
WORLD OFFICIAL GOLD HOLDINGS
International Financial Statistics, August 2014*

|		Tonnes	% of reserves**			Tonnes	% of reserves**
1	United States	8,133.5	71.9%	51	WAEMU[3]	36.5	11.1%
2	Germany	3,384.2	68.4%	52	Nepal	36.3	22.5%
3	IMF	2,814.0	[1]	53	Malaysia	35.5	1.1%
4	Italy	2,451.8	67.0%	54	Peru	34.7	2.3%
5	France	2,435.4	65.1%	55	Slovakia	31.7	58.3%
6	Russia	1,094.7	9.7%	56	Syria	25.8	6.1%
7	China	1,054.1	1.1%	57	Sri Lanka	22.2	10.6%
8	Switzerland	1,040.0	8.0%	58	Morocco	22.0	4.4%
9	Japan	765.2	2.5%	59	Afghanistan	21.9	12.4%
10	Netherlands	612.5	54.3%	60	Nigeria	21.4	1.9%
11	India	557.7	7.3%	61	Azerbaijan	20.0	4.9%
12	Turkey[6]	512.9	16.2%	62	Serbia	17.0	5.2%
13	ECB	503.2	28.0%	63	Jordan	16.5	4.7%
14	Taiwan	423.6	4.2%	64	Cyprus	13.9	63.5%
15	Portugal	382.5	83.2%	65	Bangladesh	13.5	2.7%
16	Venezuela	367.6	71.1%	66	Cambodia	12.4	9.2%
17	Saudi Arabia	322.9	1.8%	67	Qatar	12.4	1.2%
18	United Kingdom	310.3	11.7%	68	Ecuador	12.1	8.8%
19	Lebanon	286.8	24.3%	69	Czech Republic	10.7	0.8%
20	Spain	281.6	25.0%	70	Colombia	10.4	1.0%
21	Austria	280.0	45.9%	71	Laos	8.9	38.1%
22	Belgium	227.4	35.2%	72	Ghana	8.7	8.0%
23	Philippines	194.3	10.2%	73	Tajikistan	8.3	53.9%
24	Algeria	173.6	3.6%	74	Paraguay	8.2	5.4%
25	Kazakhstan	155.8	24.9%	75	Myanmar	7.3	4.1%
26	Thailand	152.4	3.8%	76	El Salvador	7.3	11.1%
27	Singapore	127.4	1.9%	77	Guatemala	6.9	4.1%
28	Sweden	125.7	8.0%	78	Macedonia	6.8	11.2%
29	South Africa	125.1	10.6%	79	Tunisia	6.8	4.0%
30	Mexico	123.3	2.7%	80	Latvia	6.6	7.9%
31	Libya	116.6	4.4%	81	Ireland	6.0	15.3%
32	Greece	112.3	69.1%	82	Lithuania	5.8	2.9%
33	BIS[2]	111.0	[1]	83	Mozambique	5.0	6.0%
34	Korea	104.4	1.2%	84	Bahrain	4.7	3.5%
35	Romania	103.7	9.5%	85	Brunei Darussalam	4.1	5.0%
36	Poland	102.9	4.3%	86	Mauritius	3.9	4.1%
37	Iraq	90.0	4.8%	87	Kyrgyz Republic	3.8	7.4%
38	Australia	79.9	5.7%	88	Slovenia	3.2	11.5%
39	Kuwait	79.0	7.9%	89	Aruba	3.1	19.1%
40	Indonesia	78.1	3.1%	90	Hungary	3.1	0.3%
41	Egypt	75.6	18.9%	91	Bosnia and Herzegovina	3.0	2.6%
42	Brazil	67.2	0.8%	92	Canada	3.0	0.2%
43	Denmark	66.5	3.5%	93	Mongolia	2.5	6.6%
44	Pakistan	64.4	20.5%	94	Luxembourg	2.3	9.6%
45	Argentina	61.7	8.9%	95	Hong Kong	2.1	0.0%
46	Finland	49.1	18.4%	96	Iceland	2.0	2.0%
47	Belarus[4]	44.4	34.2%	97	Papua New Guinea	2.0	3.1%
48	Bolivia	42.5	12.1%	98	Trinidad and Tobago	1.9	0.7%
49	Ukraine	40.1	9.9%	99	Haiti	1.8	6.1%
50	Bulgaria	40.0	8.7%	100	Albania	1.6	2.4%
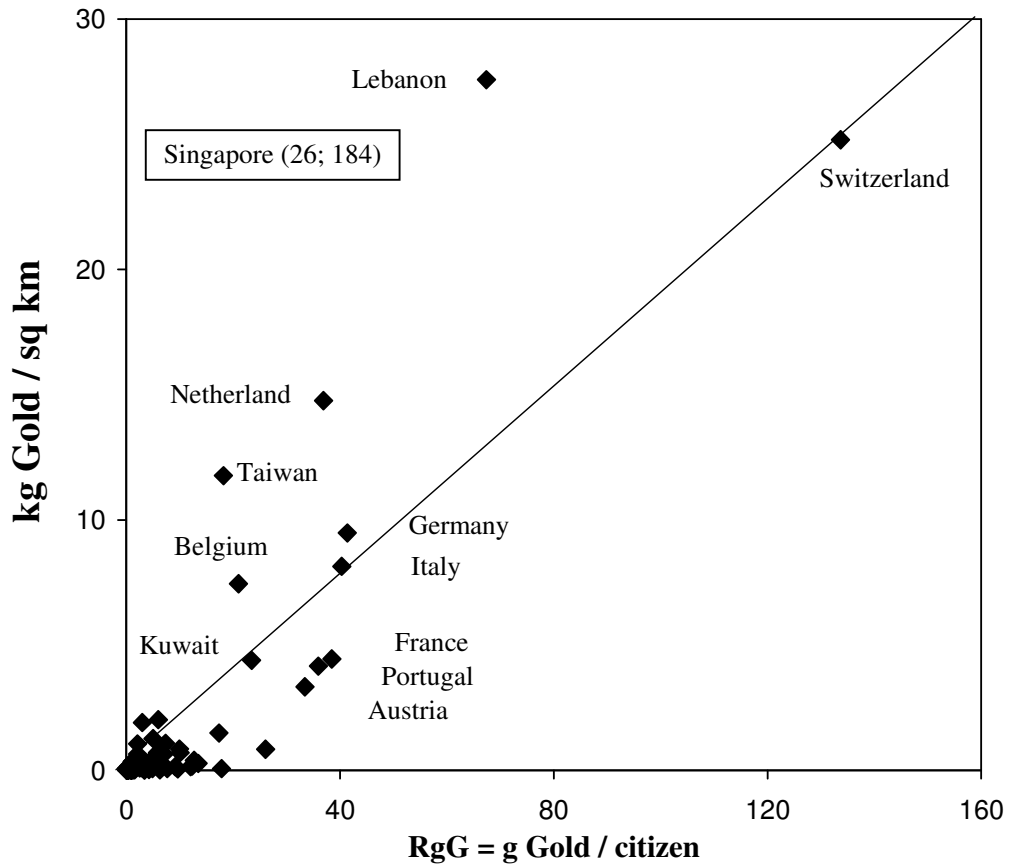
Figure 1.
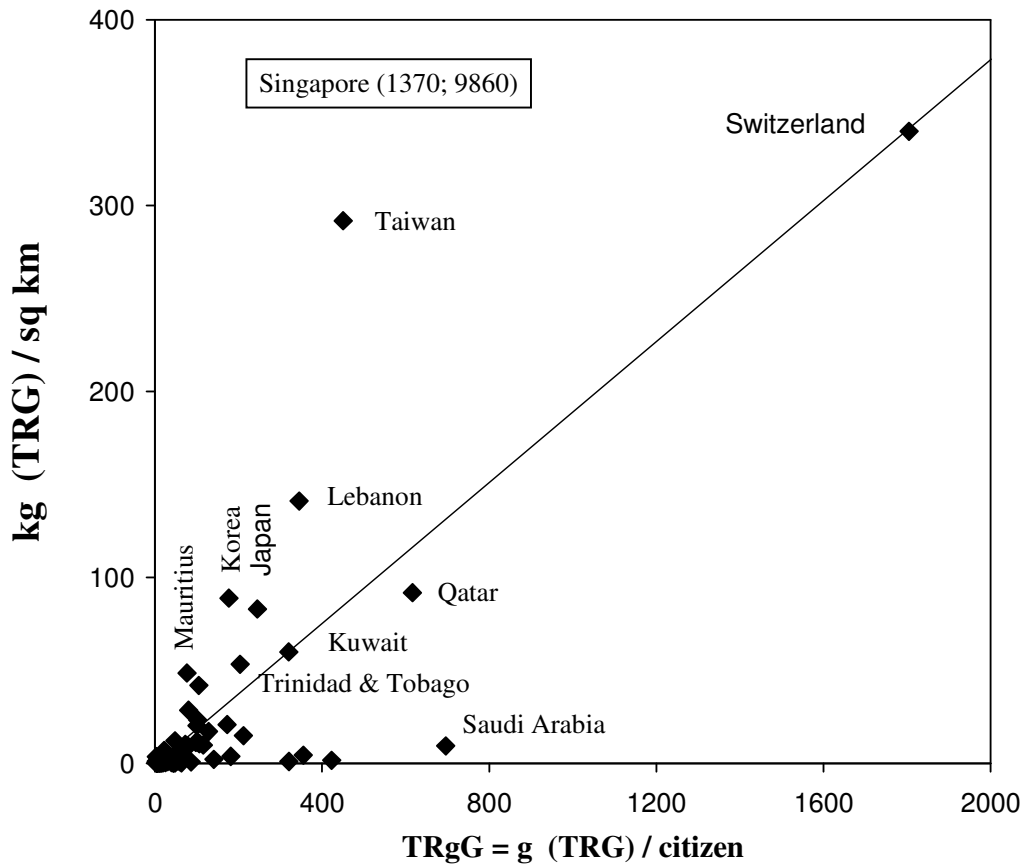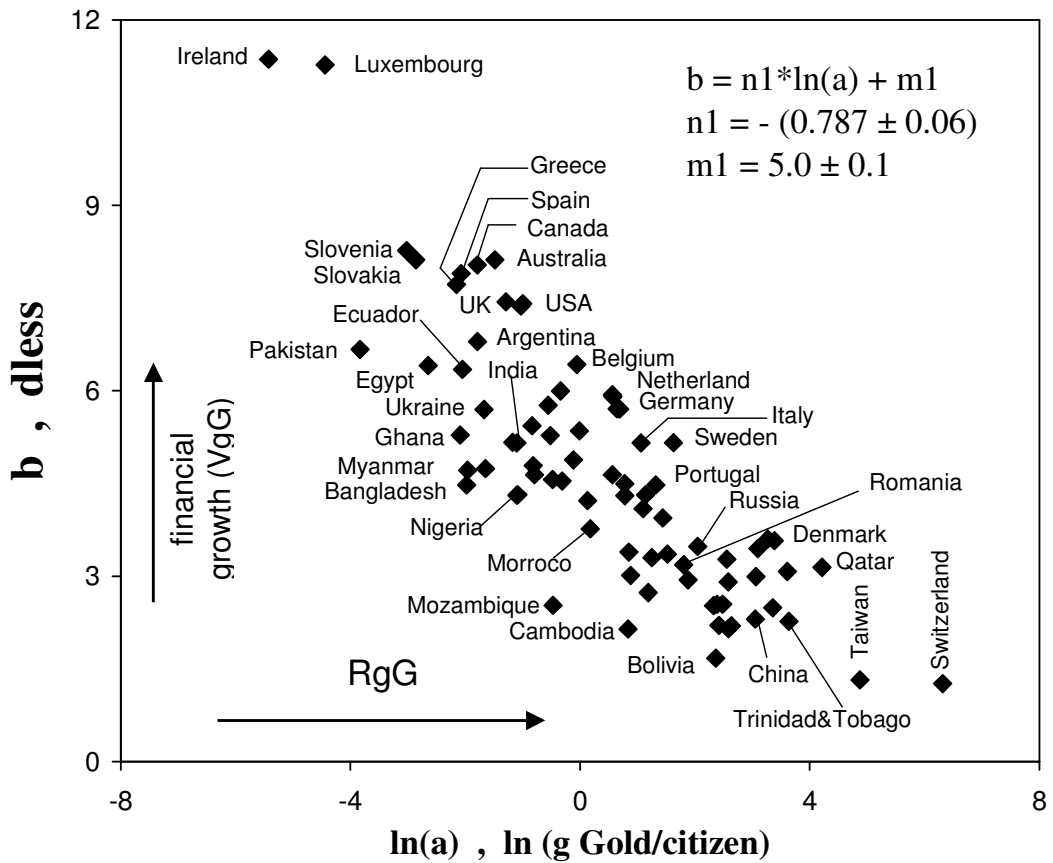

Figure 2.
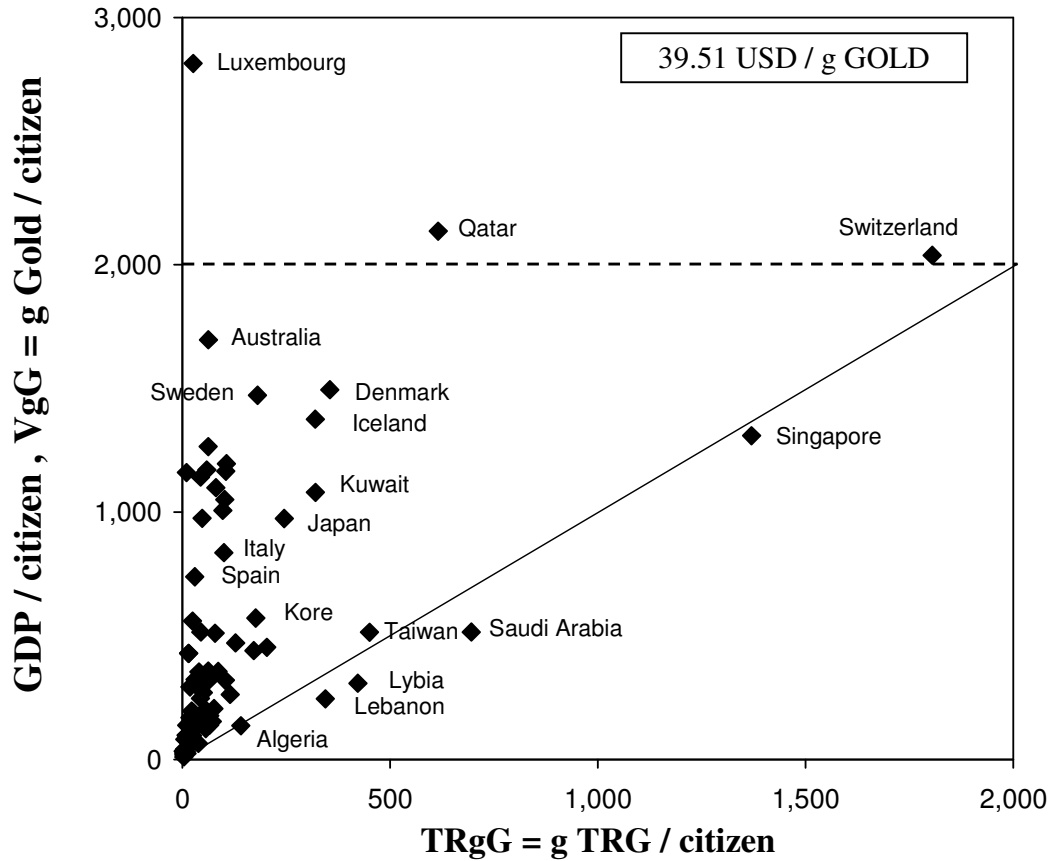
Figure 3.

Figure 4.

Table 2. Main financial figures in relation with population
and area of world countries.

Countries	citizens	area	GDP	TRG	TRG/sq km	G/citizens	TRG/citizen	GDP/citizen
	10^6	10^3 sq km	10^9 USD	tonnes	TRkgG/sq km	RgG	TRgG	VgG
Albania	2.8	29	13	68	2.37	0.50	21.4	118
Algeria	39.2	2,382	210	4,996	2.10	4.90	141.0	136
Argentina	41.1	2,767	475	755	0.27	1.52	18.6	293
Australia	22.7	7,690	1,521	1,482	0.19	3.40	63.1	1,697
Austria	8.5	84	400	890	10.60	33.44	106.3	1,196
Azerbaijan	9.3	87	67	428	4.92	2.22	47.6	183
Bahrain	1.3	7	23	139	20.90	5.82	172.2	440
Bangladesh	154.7	144	116	514	3.57	0.08	3.1	19
Belarus	9.5	208	63	174	0.84	4.69	18.4	169
Belgium	11.1	31	484	873	28.64	21.00	80.6	1,099
Bolivia	10.5	1,099	27	394	0.36	4.24	39.3	65
Brazil	198.7	8,512	2,253	8,467	0.99	0.35	43.9	287
Bulgaria	7.3	111	51	500	4.50	5.28	65.9	177
Burkina Faso	16.5	274	10					16
Cambodia	14.9	181	14	147	0.81	0.93	11.0	24
Canada	35.2	9,976	1,585	1,503	0.15	0.09	43.9	1,141
Chile	17.5	756	268					389
China	1,350.7	9,597	8,227	96,881	10.09	0.78	71.9	154
Colombia	47.7	1,139	370	1,050	0.92	0.23	23.1	196
Congo	4.3	2,345	14					80
Costa Rica	4.6	51	45					248
Cyprus	1.1	9	23	36	3.85	17.33	44.6	515
Czech Republic	10.5	79	196	1,348	17.09	1.02	128.3	471
Denmark	5.6	450	331	1,967	4.37	12.00	355.0	1,495
Ecuador	15.5	284	85	150	0.53	0.85	10.5	138
Egypt	80.7	1,002	260	476	0.47	0.96	6.0	81
El Salvador	6.3	21	24	73	3.48	1.18	11.8	96
Estonia	1.3	45	22					413
Ethiopia	91.7	1,104	43					12
Finland	5.4	337	250	316	0.94	9.14	58.8	1,170
France	65.7	547	2,613	6,176	11.29	38.47	97.6	1,006
Germany	81.9	357	3,400	8,332	23.34	41.37	101.9	1,051
Ghana	25.4	240	41	118	0.49	0.36	4.8	41
Greece	11.3	132	249	275	2.08	9.93	24.3	559
Guatemala	15.1	109	51	175	1.61	0.48	12.2	85
Honduras	7.9	113	18					57
Hong Kong	7.2	1	263					931
Hungary	9.9	93	126	1,036	11.14	0.31	103.5	320
Iceland	0.3	103	14	102	0.99	6.29	320.8	1,080
India	1,236.7	3,288	1,842	8,197	2.49	0.45	6.6	38
Indonesia	246.9	1,919	878	2,598	1.35	0.33	11.1	90
Iran	76.4	1,648	514					170
Iraq	32.6	437	210	1,965	4.50	2.86	62.4	163
Ireland	4.8	70	190			1.35	10.1	1,160
Israel	7.9	21	243					777
Italy	60.9	301	2,013	6,111	20.30	40.33	100.5	836
Japan	127.3	378	40	31,373	83.00	5.98	245.1	974
Jordan	6.3	92	31	368	4.00	2.55	56.8	125
Kazakhstan	16.8	2,717	202	782	0.29	9.62	48.2	304
Kenya	43.2	583	37					22
Korea South	50.0	99	1,130	8,804	88.93	2.10	176.9	572
Kuwait	3.3	18	177	1,079	59.94	23.44	320.2	1,375
Laos	6.7	237	9	32	0.14	1.38	5.0	35
Latvia	2.0	65	28	90	1.40	2.95	40.3	354

Table 2. continued

Countries	citizens	area	GDP	TRG	TRG/sq km	G/citizens	TRG/citizen	GDP/citizen
	10^6	10^3 sq km	10^9 USD	tonnes	TRkgG/sq km	RgG	TRgG	VgG
Lebanon	4.4	10	43	1,467	141.06	67.40	344.8	245
Libya	6.2	1,760	75	2,767	1.57	17.80	422.4	308
Lithuania	3.0	65	42	206	3.17	1.76	62.4	358
Luxembourg	0.5	6	60	26	4.45	4.58	26.0	2,814
Malaysia	29.2	330	304	3,263	9.89	1.25	115.3	263
Mali	14.9	1,240	10					18
Malta	0.4	321	9					526
Mauritius	1.3	2	10	99	48.54	3.01	76.3	206
Mexico	120.9	1,973	1,177	4,690	2.38	1.14	43.3	247
Mongolia	2.8	1,565	10	40	0.03	0.90	14.6	93
Morocco	32.5	447	97	522	1.17	0.69	16.4	75
Mozambique	25.2	802	15	88	0.11	0.21	3.8	10
Myanmar	52.8	679	52	185	0.27	0.14	3.7	25
Namibia	2.3	825	13					143
Netherland	16.8	42	772	1,741	41.94	36.90	104.8	1,166
New Zealand	4.3	269	115					677
Nicaragua	6.0	130	11					44
Nigeria	168.8	924	263	1,148	1.24	0.13	6.8	39
Oman	3.3	213	72					549
Pakistan	179.2	804	231	379	0.47	0.38	2.2	33
Panama	3.8	78	36					241
Paraguay	6.7	407	26	160	0.39	1.27	24.8	97
Peru	30.0	1,285	197	1,543	1.20	1.18	52.4	166
Philipines	96.7	300	250	2,099	7.00	2.07	22.3	66
Poland	38.5	313	490	2,496	7.97	2.70	65.4	322
Portugal	10.5	92	212	842	9.15	35.96	79.2	511
Qatar	2.1	11	173	1,046	91.73	7.31	616.2	2,136
Romania	21.3	238	169	1,195	5.02	4.83	55.7	201
Russia	143.5	17,075	2,015	12,380	0.73	7.66	86.6	355
Saudi Arabia	28.3	1,961	576	18,262	9.31	12.30	695.7	515
Senegal	13.7	196	14					26
Serbia	7.2	102	37	344	3.37	1.72	34.9	131
Singapore	5.3	0.7	275	6,833	9,859.64	25.55	1,370.1	1,309
Slovakia	5.4	49	92	86	1.76	5.84	15.9	429
Slovenia	2.1	20	59	31	1.54	1.55	15.0	429
South Africa	51.2	1,220	384	1,305	1.07	2.50	26.1	190
Spain	46.2	505	1,349	1,408	2.79	6.00	30.0	739
Sri Lanka	20.3	66	59	228	3.47	1.09	11.2	74
Sweden	9.6	450	558	1,697	3.77	13.42	181.2	1,473
Switzerland	8.1	41	651	14,040	339.95	133.68	1,804.6	2,039
Syria	22.9	185	59	449	2.43	1.15	19.9	66
Taiwan	23.3	36	474	10,509	291.93	18.15	450.3	514
Tanzania	47.8	945	28					15
Thailand	66.8	514	366	4,163	8.10	2.40	65.5	139
Trinidad & Tobago	1.3	5	24	273	53.28	1.41	203.4	453
Tunisia	10.8	164	46	177	1.08	0.65	17.0	107
Turkey	74.0	781	789	3,679	4.71	7.07	50.7	270
Uganda	36.4	236	20					14
Un. Arab Emirates	9.2	84	360					990
UK	63.2	245	2,435	2,962	12.09	5.00	47.7	975
Ukraine	45.6	604	176	445	0.74	0.87	9.7	98
Uruguay	3.4	176	49					365
USA	313.9	9,629	15,685	19,446	2.02	26.07	62.3	1,265
Venezuela	30.0	912	382	885	0.97	12.72	30.6	323
Vietnam	88.8	330	142					40

Table 3. Kinetic parameters of financial growth according to the equation y = a*x^b
(y and a in g Gold/citizen for the four growing steps x= 0, 1, 2, 3; see the text).

countries	a	b , dless	u(a)	u(b)
Albania	1.142	4.222	0.094	0.076
Argentina	0.168	6.795	0.033	0.18
Australia	0.227	8.118	0.03	0.12
Austria	1.759	5.936	1.4	0.73
Azerbaijan	4.590	3.355	0.64	0.13
Bahrain	28.670	2.491	8	0.26
Bangladesh	0.139	4.477	0.005	0.034
Belarus	0.432	5.433	0.19	0.4
Belgium	0.946	6.424	0.45	0.43
Bolivia	10.630	1.673	4	0.37
Brazil	1.755	4.639	0.11	0.06
Bulgaria	10.860	2.544	1.9	0.16
Cambodia	2.310	2.143	0.62	0.26
Canada	0.167	8.035	0.0006	0.0031
China	13.996	2.195	5.7	0.39
Colombia	0.595	5.276	0.08	0.028
Cyprus	0.711	5.995	0.5	0.64
Czech Republic	12.910	3.275	2.4	0.17
Denmark	29.460	3.575	2.8	0.09
Ecuador	0.129	6.347	0.017	0.12
Egypt	0.071	6.407	0.02	0.26
El Salvador	0.333	5.156	0.046	0.13
Finland	0.357	7.369	0.1	0.26
France	1.906	5.706	1.3	0.64
Germany	1.993	5.705	1.5	0.66
Ghana	0.124	5.282	0.012	0.086
Greece	0.116	7.721	0.089	0.7
Guatemala	0.442	4.787	0.0026	0.0055
Hungary	13.200	2.905	3.4	0.24
Iceland	36.900	3.075	7.1	0.18
India	0.333	4.311	0.011	0.031
Indonesia	0.310	5.161	0.0011	0.0031
Iraq	10.260	2.522	2.5	0.23
Ireland	0.004	11.360	0.0015	0.3
Italy	2.900	5.155	2	0.64
Japan	22.133	3.445	2.9	0.12
Jordan	11.230	2.203	3.7	0.32
Kazakhstan	2.176	4.496	0.64	0.27
Korea South	21.396	2.993	4.7	0.21
Kuwait	26.360	3.600	0.47	0.016

countries	a	b , dless	u(a)	u(b)
Laos	0.192	4.740	0.086	0.41
Latvia	0.991	5.351	0.092	0.085
Lithuania	3.124	4.316	0.13	0.039
Luxembourg	0.012	11.272	0.0044	0.34
Malaysia	21.137	2.304	8	0.36
Mauritius	11.973	2.544	2.9	0.23
Mexico	2.187	4.303	0.1	0.043
Mongolia	0.620	4.561	0.023	0.034
Morocco	1.199	3.765	0.072	0.056
Mozambique	0.625	2.527	0.14	0.21
Myanmar	0.141	4.712	0.000085	0.00055
Netherland	1.777	5.904	1.1	0.58
Nigeria	0.339	4.318	0.02	0.055
Pakistan	0.022	6.668	0.0068	0.28
Paraguay	2.336	3.392	0.2	0.078
Peru	6.577	2.941	1.4	0.2
Philipines	3.276	2.735	0.36	0.1
Poland	4.238	3.942	0.19	0.042
Portugal	3.732	4.477	2.8	0.69
Qatar	67.600	3.144	13	0.18
Romania	6.093	3.183	0.27	0.041
Russia	7.758	3.480	0.017	0.002
Serbia	3.497	3.299	0.35	0.093
Slovakia	0.057	8.118	0.04	0.63
Slovenia	0.049	8.268	0.0093	0.18
South Africa	0.890	4.882	0.11	0.11
Spain	0.126	7.897	0.047	0.34
Sri Lanka	0.452	4.641	0.049	0.1
Sweden	5.091	5.159	0.45	0.081
Switzerland	554.000	1.262	359	0.66
Syria	2.413	3.013	0.31	0.12
Taiwan	131.000	1.320	93	0.71
Thailand	13.264	2.150	4.9	0.35
Trinidad & Tobago	38.000	2.266	15	0.38
Tunisia	0.731	4.539	0.0067	0.0084
Turkey	3.009	4.093	0.46	0.14
UK	0.276	7.438	0.052	0.17
Ukraine	0.188	5.695	0.025	0.12
USA	0.369	7.409	0.29	0.72
Venezuela	0.574	5.764	0.43	0.68

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Previous issues of GDF DATABANKS BULLETIN

Year	VOL	NO	Content (titles)	$*)
1997	1	1	Editorial: Databanks – the compulsory language. LOGKOW – a Databank of evaluated octanol-water partition coefficients (James Sangster). Solubility behavior introducing topoenergetic working principles. Comments on 1-octanol-water partition of several n-alkane related series.	F
1997	1	2	Guide of good practice in metrology (Romanian)	AFI
1998	2	1	Editorial: socio-psychological implications in creation and utilization of a databank (Ioan-Bradu Iamandescu); Behavior in vapor-liquid equilibria (VLE): I. Structural aspects; Behavior in vapor-liquid equilibria: II. Several structures in databanks; Symposium on VDC-4 held on 30 October 1997 at Lubrifin-SA, Brasov (Romania).	F
1998	2	2	Practical course of metrology (Romanian)	AFI
1998	2	3	DIFFUTOR-01: Thermally driven diffusion in pure metals	AFI
1998	2	4	VAPORSAT-01: Databanks of thermally driven VLE. The first 100 simple molecules	AFI
1999	3	1	Editorial: New trends in material science: nanostructures (Dan Donescu) DIFFUTOR: Databanks of diffusion kinetics. VAPORSAT: Databanks of vapor-liquid separation kinetics.	F
1999	3	2	Discussions on Applied Metrology	AFI
2000	4	1	Editorial: Laboratory accreditation and inter-laboratory comparisons (Virgil Badescu) Doctoral Theses – important data banks. GDF intends to open new series of experiments on thermo-physical properties. Some comments on uncertainty: global budget and DFT analysis. Events: The 9th International Metrology Congress, Bordeaux, France, 18-21 October 1999.	F
2000	4	2	Measurement and Calibration.	AFI
2001	5	1	Editorial: Metrology ensures moral and technological progress. Topoenergetic aspects of amorphous-crystalline coupling. I. Composite behavior of water and aqueous solutions (paper presented at nanotubes and Nanostructures 2001, LNF, Frascati, Rome Italy, 17-27 October 2001). Events: Nanotubes and nanostructures 2000.School and workshop, 24 September – 4 October 2000, Cagliari, Italy.	F
2001	5	2	Editorial: Viscosity – a symptomatic problem of actual metrology. Visco-Dens Calorimeter: general features on density and viscosity measurements. New vision on the calibration of thermometers: ISOCALT® MOSATOR: Topoenergetic databanks on molten salts properties driven by temperature and composition.	F

2002	6	1	MOSATOR-01: Topoenergetic databanks for one component molten salts; thermally driven viscosity and electrical conductance.	AFI
2002	6	2	Editorial: HuPoTest - Operator calibration or temporal scale psychic test. MOSATOR: topoenergetic databanks of one component molten salts; thermally driven viscosity and electrical conductance.	F
2002	6	3	Editorial: Quo vadis Earth experiment? ISOCALT® : Report on metrological tests	F
2003	7	1	Editorial: Time – an instrument of the selfish thinking. 1st NOTE: Homoeopathy: upon some efficient physical tests revealing structural modifications of water and aqueous solutions. I. Mixing experiments.	F
2004	8	1	Metrological verification and calibration of thermometers using thermostats type ISOCALT® 21/70/2. Metrological verification and calibration of thermometers using thermostats type ISOCALT® 2.2R.	F
2004	8	2	Aspects of correct measurements of temperature. I. measurement of a fixed point according to ITS-90. Physics and Homoeopathy: some physical requirements for homoeopathic practice.(Plenary lecture at the 19th SRH National Congress, 21-22 September 2004, Bucharest, Romania)	F
2005	9	1	AWARD for ISOCALT® at the International Fair TIB-2004, October 2004, Bucharest. ISOCALT® 3/70/21 was awarded in a selection of 20 products by a commission of experts from the Polytechnic University of Bucharest. Upon some aspects of temperature measurements. (12th International Metrology Congress, 20-23 June 2005, Lyon, France)	F
2005	9	2	A new technique for temperature measurement and calibration. National Society of Measurements (NSM). Important warning for T-calibrator users: MSA has chose metrology well calibrators from Fluke (Hart Scientific).	F
2005	9	3	Universal representation of Cancer Diseases. 1. First sight on NSW-2003 report. Universal representation of Cancer Diseases. 2. UK cancer registrations on 1999-2002. Vital Potential can estimate our predisposition for cancer diseases.	F
2006	10	1	NTC – thermistors -1	AFI
2007	11	1	HuPoTest - 40 years of continuous research Basic rules for preventing and vanishing cancer diseases Climate change = change of mentality Hot nuclear fusion – a project of actual mentality	F
2007	11	2	MT – Introduction to Mental Technology HuPoTest – general procedure, assignments of results, specimen of complete test, order and obtain your complete HuPoTest report	F
2007	11	3	TRESISTOR© - data banks of materials with thermally driven electric and magnetic properties TRESISTOR© - NTC -1 - data bank of NTC thermistors	AFI

2008	12	1	Australian population: life, death and cancer	F
2008	12	2	Pattern of Cancer Diseases	F
2008	12	3	Adiabatic calorimetry – summary description of the demo prototype	F
2008	12	4	Flight QF 30 and even more… Temperature calibration of NTC-thermistors. 1.Preliminary results.	F
2009	13	1	Proposal for interlaboratory comparisons. Calibration of NTC-thermistors (The 14th International Metrology Congress, Paris, France, 22-25 June 2009).	F
2009	13	2	Sudoku – un algoritm de rezolvare. (Sudoku – an algorithm for solution).	AFI
2009	13	3	Cancer and Diabetes – as social diseases. (Open letter to all whom it may concern).	F
2010	14	1	Studies on cement hydration by High Resolution Mixing Calorimetry (HRMC).	F
2010	14	2	Measuring tools for subtle potentials; pas-LED: an efficient measuring tool for subtle potentials.	F
2010	14	3	Upon some features of cancer in Australia: 1982 – 2006.	F
2010	14	4	Cancer as an erosion process in human society.	F
2010	14	5	Cancer erosion in Australian human society: 1982 – 2006.	F
2010	14	6	Cancer erosion in German human society:1980-2008.	F
2011	15	1	Procedures and devices for energy and water saving. (I) (in Romanian).	F
2011	15	2	Structural and relativistic aspects in transforming systems. I. Arrhenius and Universal representations of thermally driven processes.	F
2011	15	3	Topoenergetic aspects of water structuring as revealed by ac electric conductivity.	F
2011	15	4	Topoenergetic aspects of human body	F
2011	15	5	HuPoTest: four month study of a case	F
2012	16	1	DTA study of water freezing. I. Upon some aspects of repeatability.	F
2012	16	2	DTA study of water freezing. II. Statistical features on one week of experiments.	F
2012	16	3	DTA study of water freezing. III. New facts on daily mental field.	F
2012	16	4	Mental field and state of health. Câmpul mental și starea de sănătate.	F
2013	17	1	DTA study of water freezing. IV. New facts on energy circuits.	F
2013	17	2	DTA study of water freezing. V. Effect of a mental antenna	F
2013	17	3	AC electric conductivity of untreated and mentally treated electrolyte aqueous solutions.	F
2013	17	4	DTA study of water freezing. VI. Mental field in a working day.	F
2013	17	5	DTA study of water freezing. VII. More statistical features on one week of experiments.	F
2013	17	6	HuPoTest: New measurements and results	F

2013	17	7	Time as unique base quantity. (Proceedings of the 16th International Congress of Metrology, 7-10 October 2013, Paris, France).	F
2013	17	8	Eurovision song contest. 1.Basic social aspects	F
2013	17	9	Mental field-water interaction as evidenced by Isothermal Convection Flow Calorimetry (ICFC). I. ICFC description and preliminary results.	F
2013	17	10	1. Procedure for defining standard liquids for viscosity based on topoenergetic principles. 2. Topological aspects of flow and deformation in polymer composites, The VIII-th International Congress on Rheology, 1-5 September 1980, Naples, Italy, pp. 375-376. 3. Universal representation of flow behavior based on topoenergetic principles, The IX-th International Congress on Rheology, 8-13 October 1984, Accapulco, Gro. Mexico, pp.369-376. 4. Comments on "Universal representation of flow behavior based on topoenergetic principles", The IX-th International Congress on Rheology, 8-13 October 1984, Accapulco, Gro. Mexico, pp. 369-376. 5. Open letter to BRML and INM.	F
2014	18	1	Adiabatic calorimeter as high accuracy T-calibrator	F
2014	18	2	Mental field-water interaction as evidenced by Isothermal Convection Flow Calorimetry (ICFC). II. Effect of convection flow power.	F
2014	18	3	Eurovision song contest. II. Copenhagen, Denmark 2014 and some more features on social mentality.	F
2014	18	4	The 38th Congress of American-Romanian Academy (ARA) of Arts and Sciences, 23-27 July 2014, Pasadena, California, USA	F

*) F=free, AFI=ask for invoice.

ERRATA:

VOL	NO	place	was written	must be
15	2	Figure 5	P+	P-
15	3	page 5, row 7 down-to-up	x=2	x=0.2

I encourage readers to advice me any observation.

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