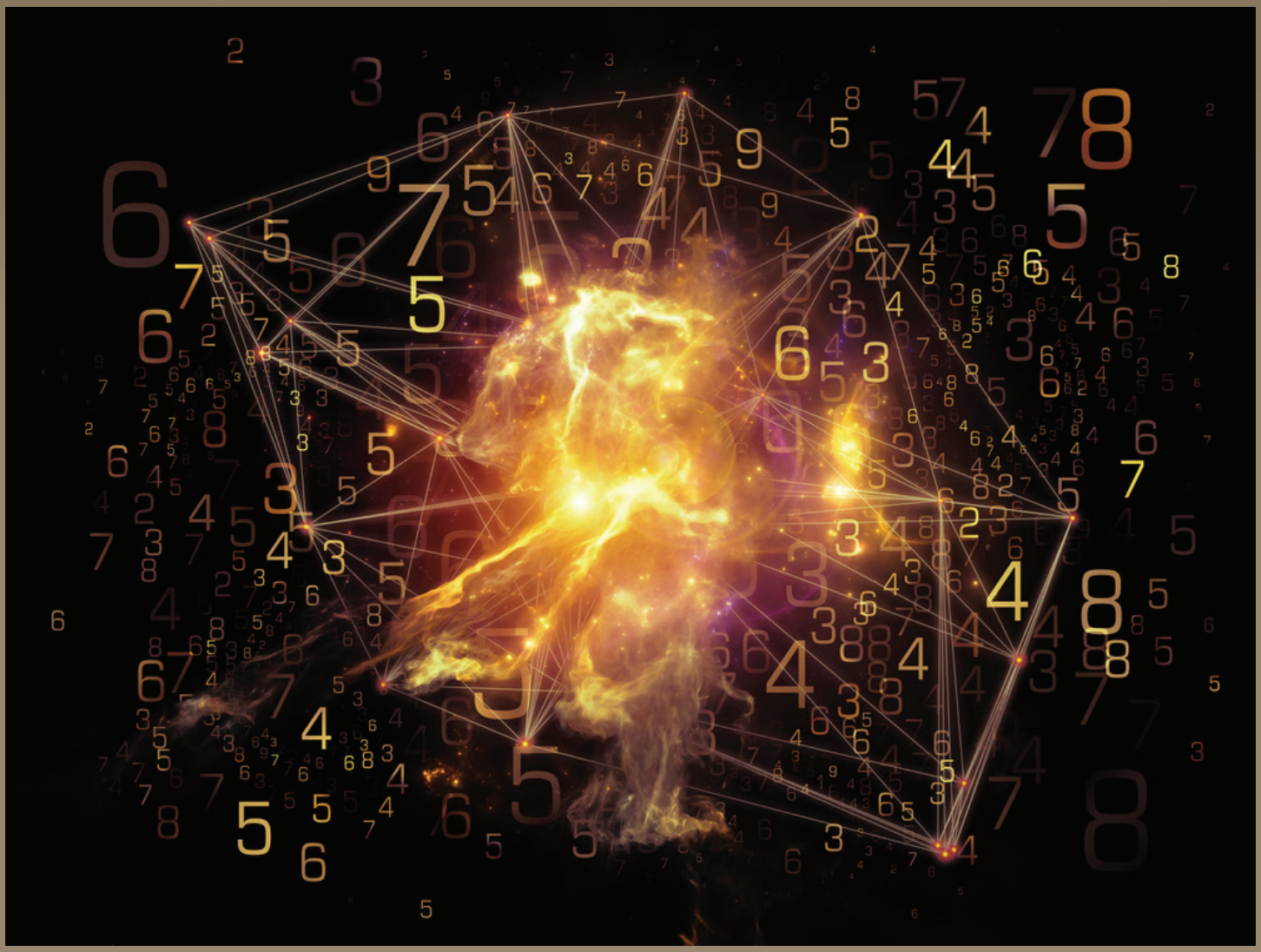
Rockstone Research Ltd.

Boris Gerjovič May 23, 2015

The Truth About The Impact Of Interest Rates On The Price Of Gold

By mag. Boris Gerjovič (MBA)



BULLETIN
by Stephan Bogner

Boris Gerjovič from Maribor, Slovenia, accomplished a thorough examination of the real impact of interest rates on the price of gold. The results may surprise.

For quite some time, central banks around the globe — first and foremost the Federal Reserve System — are tinkering with the threat of a hike in interest rates, whereas the prompt result is a 'Damocles Sword' hovering above the markets, especially gold (higher US interest rates are generally believed to lead to a higher US dollar impacting the price of gold in US dollar negatively). As per "The Sword above the Damocles-Dollar" (2010):

"The value of the sword is not that it falls, but that it hangs threating to fall... Uneasy rests the head that wears the crown!"

No matter if Janet Yellen doubles US interest rates next month (from 0.25% to 0.5%), a subsequent fall-back may come faster than many would expect. Gradually rising rates would become unbearable in respect to the weighty debt burden. The Great QE Comeback should take place not later than summer of 2016; in order to be in a dazzling position to win the forthcoming presidential elections in favour of the Democrats.

While the broad media is tirelessly trying to explain and persuade the public that an interest rate hike would encompass a prolonged gold price depreciation (likely to be largely priced in already; thus supplying a temporarily suppressed/undervalued price), Boris Gerjovič's findings indicate quite the contrary:

"The path to the truth was long and in our case paved with unbiased research principles... Our intention is actually to show that there is no reason to believe that as a consequence of an interest rates hike there will be a decreasing trend in the gold price. In contrary, the price of gold could even rise and many people could be surprised by this increase."
(Boris Gerjovič in "The Truth About The Impact Of Interest Rates On The Price Of Gold")

The full research paper, which was written by Boris Gerjovič in November 2014, is reprinted below and can be accesses via this link.

ABSTRACT

In this article we discuss the real impact of interest rates on the price of gold. As it is obviously, there is a lot of talk about an interest rates hike in the media worldwide. As a consequence the decreasing price of gold should follow. However, the task of science is not to repeat what the media have to say, but to put the serious doubt on whatever the media have to say.

So, we do believe that the interest rates hike could follow pretty soon, but it's not the task of this article to discuss if there will be or will not be an interest rates hike. Our intention is actually to show that there is no reason to believe that as a consequence of an interest rates hike there will be a decreasing trend in the gold price. In contrary, the price of gold could even rise and many people could be surprised by this increase.

Key words: interest rates, gold price, impact, new paradigm

INTRODUCTION

In recent years mass media are full of articles, in which authors explain how the price of gold is under pressure awaiting interest rates hike. First of all, in most of these articles the following information appears as unsufficient:

Are we talking only about the gold price in US$, or do we have to believe that the fall in the gold price will be present also if we observe the price of gold in other currencies?

Are we talking about interest rates in US, or/and in GB, or/and in Europe, Japan etc.? Especially American media like to discuss about these issue taking only American market into consideration. FED decision about interest rates hike has been seriously discussed now for more than 18 months and as always there is a repeating press conference statement where it stays clear how we should expect such a move from FED pretty soon.

"Increasing interest rates should follow pretty soon" is not telling us enough, because it still remains unclear if we are talking about short term interest rates, or long term interest rates. We could imagine that increase in active interest rates would bring as a consequence also an increase in passive interest rates. And we could even imagine that a move from central bank will be followed pretty soon by the moves from the commercial banks - at least in the same country. However, there is surely the need to express ourselves more clear and concrete when we are talking about an interest rates hike.

We could imagine that the worldwide widespread paradigm has find great support in the US, because the price for gold is really settled in US dollars. Higher US interest rates usually lead to stronger US currency and afterwards this could lead to a lower price of gold. In that case the gold is not seen as a safe harbor, but as a hedge instrument for unstable value of the local currency.

Usually in the western world nobody else has courage to make the first move and other countries are comfortable to follow USA. This means, that there will probably be an interest hike in the whole western world. It's more or less clear that in this case China and Russia are not waiting for the FED's decision. Observing the small fluctuations in economic indicators and the small fluctuations in their interest rates, we can make a conclusion, that economic life in China & Russia is still running independent from the rules of market economy and common economic behavior of the western world. So, we will put them aside of our analysis.

The main goal of research in this article is to increase the doubt about the validity of mentioned existing paradigm. It might even occur that we will be able to prove the opposite and it might be that higher interest rates nowadays really lead to a higher price of gold.

MATERIALS AND METHODS

We choose the analyzing period from January 2001 until August 2014. The purpose is more or less clear. This way we include also the 8 months period before the world has faced the fall of New York tweens. To avoid influence of extreme daily fluctuations we use monthly averages of the official p.m. closing rates. Sources for all data are linked under each table.

In the first step we will calculate the correlation coefficients for all parameters observing their directly relation with the price of gold. In most cases when someone conducts similar research, the authors calculate only the correlations for the analytical period as a whole. We will not follow this mistake. The 164 months, which are the subject of our observation, will be divided in 3 separate periods. First period describes the situation from January 2001 until August 2008. We indicate this first period as pre-crisis period.

German DAX has fallen in August 2008 from 6.421 points to 6133 points in September 2008 and has continuing to fall further to only 4947 points in October 2008. Recovery did not occur before November 2010 when the DAX for the first time surpassed the level from August 2008 with 6744 points respectively. We indicate the second period from September 2008 until October 2010 as crisis period and the third period from November 2010 until now as post crisis period. Furthermore, our analysis are separated and the results for short term interest rates will be divided from the results for long term interest rates.

RESULTS

TABLE 1 Short term interest rates (in % per annum) and the price of gold

	1	3	6	12	libor	libor	real libor	1 month	Gold
TIME	month	months	months	months	3 months	3 months	3 months	FED	price
	Euribor	Euribor	Euribor	Euribor	on GBP	on YEN	on US$	effective	US$/oz.
2014Aug	0,09	0,19	0,29	0,46	0,56	0,13	-1,47	0,09	1.295,99
2014Jul	0,10	0,21	0,30	0,49	0,56	0,13	-1,76	0,09	1.310,97
2014Jun	0,15	0,24	0,33	0,51	0,54	0,13	-1,84	0,10	1.279,10
2014May	0,26	0,32	0,42	0,59	0,53	0,14	-1,90	0,09	1.287,53
2014Apr	0,25	0,33	0,43	0,60	0,53	0,14	-1,73	0,09	1.299,00
2014Mar	0,23	0,31	0,41	0,58	0,52	0,14	-1,28	0,08	1.336,08
2014Feb	0,22	0,29	0,39	0,55	0,52	0,14	-0,89	0,07	1.300,97
2014Jan	0,22	0,29	0,40	0,56	0,52	0,14	-1,34	0,07	1.244,80
2013Dec	0,21	0,27	0,37	0,54	0,52	0,15	-1,26	0,09	1.255,40
2013Nov	0,13	0,22	0,33	0,51	0,52	0,14	-1,00	0,08	1.275,82
2013Oct	0,13	0,23	0,34	0,54	0,52	0,15	-0,72	0,09	1.316,18
2013Sep	0,13	0,22	0,34	0,54	0,52	0,15	-0,93	0,08	1.348,80
2013Aug	0,13	0,23	0,34	0,54	0,51	0,15	-1,26	0,08	1.347,10
2013Jul	0,13	0,22	0,34	0,53	0,51	0,16	-1,69	0,09	1.286,72
2013Jun	0,12	0,21	0,32	0,51	0,51	0,15	-1,48	0,09	1.342,36
2013May	0,11	0,20	0,30	0,48	0,51	0,16	-1,09	0,11	1.413,50
2013Apr	0,12	0,21	0,32	0,53	0,51	0,16	-0,79	0,15	1.485,08
2013Mar	0,12	0,21	0,33	0,55	0,51	0,16	-1,19	0,14	1.592,86
2013Feb	0,12	0,22	0,36	0,59	0,51	0,16	-1,69	0,15	1.627,59
2013Jan	0,11	0,20	0,34	0,58	0,51	0,17	-1,29	0,14	1.670,95
2012Dec	0,11	0,19	0,32	0,55	0,52	0,18	-1,43	0,16	1.688,53
2012Nov	0,11	0,19	0,36	0,59	0,52	0,19	-1,45	0,16	1.721,14
2012Oct	0,11	0,21	0,41	0,65	0,54	0,19	-1,83	0,16	1.747,01

	1	3	6	12	libor	libor	real libor	1 month	Gold
TIME	month	months	months	months	3 months	3 months	3 months	FED	price
	Euribor	Euribor	Euribor	Euribor	on GBP	on YEN	on US$	effective	US$/oz.
2012Sep	0,12	0,25	0,48	0,74	0,65	0,19	-1,61	0,14	1.744,45
2012Aug	0,13	0,33	0,61	0,88	0,71	0,19	-1,26	0,13	1.626,03
2012Jul	0,22	0,50	0,78	1,06	0,82	0,20	-0,95	0,16	1.593,91
2012Jun	0,38	0,66	0,93	1,22	0,95	0,20	-1,20	0,16	1.596,70
2012May	0,39	0,68	0,97	1,27	1,00	0,20	-1,24	0,16	1.585,50
2012Apr	0,41	0,74	1,04	1,37	1,02	0,20	-1,84	0,14	1.650,07
2012Mar	0,47	0,86	1,16	1,50	1,04	0,20	-2,18	0,13	1.673,77
2012Feb	0,63	1,05	1,35	1,68	1,07	0,20	-2,37	0,10	1.742,62
2012Jan	0,84	1,22	1,50	1,84	1,09	0,20	-2,36	0,08	1.656,12
2011Dec	1,14	1,43	1,67	2,00	1,06	0,20	-2,41	0,07	1.652,31
2011Nov	1,23	1,48	1,71	2,04	1,01	0,20	-2,92	0,08	1.738,98
2011Oct	1,36	1,58	1,78	2,11	0,97	0,19	-3,12	0,07	1.665,21
2011Sep	1,35	1,54	1,74	2,07	0,92	0,19	-3,52	0,08	1.771,85
2011Aug	1,37	1,55	1,75	2,10	0,86	0,19	-3,48	0,10	1.755,81
2011Jul	1,42	1,60	1,82	2,18	0,83	0,20	-3,38	0,07	1.572,81
2011Jun	1,28	1,49	1,75	2,14	0,83	0,20	-3,31	0,09	1.528,66
2011May	1,24	1,43	1,71	2,15	0,82	0,20	-3,31	0,09	1.510,44
2011Apr	1,13	1,32	1,62	2,09	0,82	0,20	-2,88	0,10	1.473,81
2011Mar	0,90	1,18	1,48	1,92	0,81	0,20	-2,37	0,14	1.424,01
2011Feb	0,89	1,09	1,35	1,71	0,80	0,19	-1,80	0,16	1.372,73
2011Jan	0,79	1,02	1,25	1,55	0,77	0,19	-1,33	0,17	1.356,40
2010Dec	0,81	1,02	1,25	1,53	0,75	0,18	-1,19	0,18	1.390,55
2010Nov	0,83	1,04	1,27	1,54	0,74	0,19	-0,86	0,19	1.369,89
2010Oct	0,78	1,00	1,22	1,50	0,74	0,20	-0,88	0,19	1.342,02
2010Sep	0,62	0,88	1,14	1,42	0,73	0,23	-0,85	0,19	1.270,98
2010Aug	0,64	0,90	1,15	1,42	0,73	0,24	-0,79	0,19	1.215,81

	1	3	6	12	libor	libor	real libor	1 month	Gold
TIME	month	months	months	months	3 months	3 months	3 months	FED	price
	Euribor	Euribor	Euribor	Euribor	on GBP	on YEN	on US$	effective	US$/oz.
2010Jul	0,58	0,85	1,10	1,37	0,74	0,24	-0,72	0,18	1.192,97
2010Jun	0,45	0,73	1,01	1,28	0,73	0,24	-0,52	0,18	1.232,92
2010May	0,42	0,69	0,98	1,25	0,70	0,24	-1,56	0,20	1.205,43
2010Apr	0,40	0,64	0,96	1,23	0,66	0,24	-1,92	0,20	1.148,69
2010Mar	0,41	0,65	0,95	1,22	0,65	0,25	-2,05	0,16	1.113,34
2010Feb	0,42	0,66	0,96	1,23	0,63	0,25	-1,89	0,13	1.095,41
2010Jan	0,44	0,68	0,98	1,23	0,61	0,26	-2,38	0,11	1.117,96
2009Dec	0,48	0,71	1,00	1,24	0,61	0,28	-2,47	0,12	1.134,72
2009Nov	0,44	0,72	0,99	1,23	0,61	0,31	-1,57	0,12	1.127,04
2009Oct	0,43	0,74	1,02	1,24	0,57	0,33	0,47	0,12	1.043,16
2009Sep	0,46	0,77	1,04	1,26	0,61	0,36	1,58	0,15	996,59
2009Aug	0,51	0,86	1,12	1,33	0,78	0,40	1,91	0,16	949,38
2009Jul	0,61	0,98	1,21	1,41	1,00	0,43	2,61	0,16	934,23
2009Jun	0,91	1,23	1,44	1,61	1,24	0,49	2,05	0,21	945,67
2009May	0,88	1,28	1,48	1,64	1,36	0,53	2,10	0,18	928,64
2009Apr	1,01	1,42	1,61	1,77	1,53	0,57	1,84	0,15	890,20
2009Mar	1,27	1,64	1,77	1,91	1,83	0,62	1,65	0,18	924,27
2009Feb	1,63	1,94	2,03	2,14	2,09	0,64	1,01	0,22	943,16
2009Jan	2,14	2,46	2,54	2,62	2,32	0,73	1,18	0,15	858,69
2008Dec	2,99	3,29	3,37	3,45	3,20	0,92	1,74	0,16	816,09
2008Nov	3,84	4,24	4,29	4,35	4,45	0,91	1,21	0,39	760,86
2008Oct	4,83	5,11	5,18	5,25	6,13	1,04	0,40	0,97	806,62
2008Sep	4,66	5,02	5,22	5,38	5,91	0,91	-1,82	1,81	829,93
2008Aug	4,49	4,97	5,16	5,32	5,77	0,89	-2,57	2,00	839,03
2008Jul	4,47	4,96	5,15	5,39	5,83	0,92	-2,81	2,01	939,77
2008Jun	4,47	4,94	5,09	5,36	5,93	0,92	-2,26	2,00	889,49

	1	3	6	12	libor	libor	real libor	1 month	Gold
TIME	month	months	months	months	3 months	3 months	3 months	FED	price
	Euribor	Euribor	Euribor	Euribor	on GBP	on YEN	on US$	effective	US$/oz.
2008May	4,39	4,86	4,90	4,99	5,83	0,92	-1,48	1,98	888,66
2008Apr	4,37	4,78	4,80	4,82	5,92	0,92	-1,14	2,28	909,70
2008Mar	4,30	4,60	4,59	4,59	5,89	0,97	-1,20	2,61	968,43
2008Feb	4,18	4,36	4,36	4,35	5,64	0,90	-0,94	2,98	922,30
2008Jan	4,20	4,48	4,50	4,50	5,64	0,89	-0,36	3,94	889,60
2007Dec	4,71	4,85	4,82	4,79	6,39	0,99	0,90	4,24	803,21
2007Nov	4,22	4,64	4,63	4,61	6,41	0,91	0,66	4,49	806,25
2007Oct	4,24	4,69	4,66	4,65	6,27	0,97	1,61	4,76	754,60
2007Sep	4,43	4,74	4,75	4,72	6,65	0,99	2,74	4,94	712,65
2007Aug	4,31	4,54	4,59	4,67	6,41	0,92	3,51	5,02	665,41
2007Jul	4,11	4,22	4,36	4,56	6,02	0,77	3,00	5,26	665,29
2007Jun	4,10	4,15	4,28	4,51	5,88	0,73	2,67	5,25	655,49
2007May	3,92	4,07	4,20	4,37	5,77	0,67	2,67	5,25	666,86
2007Apr	3,86	3,98	4,10	4,25	5,65	0,66	2,78	5,25	679,37
2007Mar	3,84	3,89	4,00	4,11	5,55	0,71	2,57	5,26	654,89
2007Feb	3,65	3,82	3,94	4,09	5,57	0,59	2,94	5,26	664,74
2007Jan	3,62	3,75	3,89	4,06	5,49	0,56	3,28	5,25	631,17
2006Dec	3,64	3,68	3,79	3,92	5,29	0,56	2,82	5,24	629,79
2006Nov	3,42	3,60	3,73	3,86	5,23	0,48	3,40	5,25	627,83
2006Oct	3,35	3,50	3,64	3,80	5,13	0,44	4,07	5,25	585,78
2006Sep	3,16	3,34	3,53	3,72	5,03	0,42	3,32	5,25	598,18
2006Aug	3,09	3,23	3,41	3,62	4,94	0,41	1,60	5,25	632,59
2006Jul	2,94	3,10	3,29	3,54	4,73	0,40	1,35	5,24	633,71
2006Jun	2,87	2,99	3,16	3,40	4,74	0,32	1,07	4,99	596,14
2006May	2,69	2,89	3,06	3,31	4,70	0,19	1,02	4,94	675,39
2006Apr	2,65	2,79	2,96	3,22	4,63	0,11	1,53	4,79	610,65

	1	3	6	12	libor	libor	real libor	1 month	Gold
TIME	month	months	months	months	3 months	3 months	3 months	FED	price
	Euribor	Euribor	Euribor	Euribor	on GBP	on YEN	on US$	effective	US$/oz.
2006Mar	2,63	2,72	2,87	3,11	4,59	0,10	1,56	4,59	557,09
2006Feb	2,46	2,60	2,72	2,91	4,58	0,07	1,16	4,49	554,99
2006Jan	2,39	2,51	2,65	2,83	4,60	0,07	0,62	4,29	549,86
2005Dec	2,41	2,47	2,60	2,78	4,64	0,07	1,08	4,16	510,10
2005Nov	2,22	2,36	2,50	2,68	4,62	0,06	0,90	4,00	476,67
2005Oct	2,12	2,20	2,27	2,41	4,59	0,06	-0,18	3,78	469,90
2005Sep	2,12	2,14	2,17	2,22	4,60	0,06	-0,78	3,62	456,05
2005Aug	2,11	2,13	2,16	2,22	4,60	0,06	0,16	3,50	437,93
2005Jul	2,11	2,12	2,13	2,17	4,66	0,06	0,45	3,26	424,48
2005Jun	2,10	2,11	2,11	2,10	4,84	0,05	0,90	3,04	430,66
2005May	2,10	2,13	2,14	2,19	4,89	0,05	0,47	3,00	421,87
2005Apr	2,10	2,14	2,17	2,27	4,94	0,05	-0,36	2,79	429,23
2005Mar	2,10	2,14	2,19	2,33	4,99	0,05	-0,12	2,63	434,32
2005Feb	2,10	2,14	2,18	2,31	4,89	0,05	-0,19	2,50	423,35
2005Jan	2,11	2,15	2,19	2,31	4,87	0,05	-0,30	2,28	424,03
2004Dec	2,17	2,17	2,21	2,30	4,87	0,05	-0,76	2,16	442,08
2004Nov	2,11	2,17	2,22	2,33	4,88	0,05	-1,22	1,93	439,38
2004Oct	2,09	2,15	2,19	2,32	4,90	0,05	-1,11	1,76	420,46
2004Sep	2,08	2,12	2,20	2,38	4,95	0,05	-0,63	1,61	405,28
2004Aug	2,08	2,11	2,17	2,30	4,96	0,05	-0,93	1,43	400,51
2004Jul	2,08	2,12	2,19	2,36	4,86	0,05	-1,36	1,26	398,09
2004Jun	2,08	2,11	2,19	2,40	4,79	0,05	-1,77	1,03	392,37
2004May	2,06	2,09	2,14	2,30	4,53	0,05	-1,80	1,00	383,78
2004Apr	2,05	2,05	2,06	2,16	4,39	0,05	-1,13	1,00	403,26
2004Mar	2,04	2,03	2,02	2,06	4,30	0,05	-0,63	1,00	406,67
2004Feb	2,06	2,07	2,09	2,16	4,17	0,05	-0,57	1,01	404,88

	1	3	6	12	libor	libor	real libor	1 month	Gold
TIME	month	months	months	months	3 months	3 months	3 months	FED	price
	Euribor	Euribor	Euribor	Euribor	on GBP	on YEN	on US$	effective	US$/oz.
2004Jan	2,08	2,09	2,12	2,22	4,06	0,06	-0,80	1,00	413,79
2003Dec	2,13	2,15	2,20	2,38	4,02	0,06	-0,71	0,98	406,95
2003Nov	2,09	2,16	2,22	2,41	3,98	0,06	-0,59	1,00	389,91
2003Oct	2,10	2,14	2,17	2,30	3,80	0,06	-0,88	1,01	378,92
2003Sep	2,13	2,15	2,18	2,26	3,70	0,05	-1,18	1,01	378,95
2003Aug	2,12	2,14	2,17	2,28	3,52	0,05	-1,02	1,03	359,77
2003Jul	2,13	2,13	2,09	2,08	3,49	0,05	-1,00	1,01	351,02
2003Jun	2,18	2,15	2,08	2,01	3,64	0,06	-0,99	1,22	356,35
2003May	2,52	2,40	2,31	2,25	3,63	0,06	-0,77	1,26	355,68
2003Apr	2,58	2,53	2,47	2,45	3,64	0,06	-0,92	1,26	328,18
2003Mar	2,60	2,53	2,45	2,41	3,66	0,06	-1,73	1,25	340,55
2003Feb	2,77	2,69	2,58	2,50	3,75	0,06	-1,64	1,26	358,97
2003Jan	2,85	2,83	2,76	2,70	3,98	0,06	-1,23	1,24	356,86
2002Dec	2,98	2,94	2,89	2,87	4,02	0,06	-0,97	1,24	331,92
2002Nov	3,23	3,12	3,04	3,02	3,97	0,07	-0,74	1,34	319,07
2002Oct	3,31	3,26	3,17	3,13	3,96	0,07	-0,24	1,75	316,56
2002Sep	3,32	3,31	3,27	3,24	3,99	0,07	0,29	1,75	319,14
2002Aug	3,33	3,35	3,38	3,44	3,99	0,07	-0,03	1,74	310,25
2002Jul	3,36	3,41	3,48	3,64	4,06	0,07	0,38	1,73	313,29
2002Jun	3,38	3,46	3,59	3,87	4,18	0,07	0,81	1,75	321,18
2002May	3,37	3,47	3,63	3,96	4,15	0,08	0,72	1,75	314,49
2002Apr	3,34	3,41	3,54	3,86	4,17	0,08	0,33	1,75	302,68
2002Mar	3,35	3,39	3,50	3,82	4,13	0,10	0,51	1,73	294,06
2002Feb	3,34	3,36	3,40	3,59	4,05	0,10	0,77	1,74	295,50
2002Jan	3,35	3,34	3,34	3,48	4,04	0,09	0,68	1,73	281,51
2001Dec	3,42	3,34	3,26	3,30	4,05	0,08	0,37	1,82	275,85

TIME	1 month Euribor	3 months Euribor	6 months Euribor	12 months Euribor	libor 3 months on GBP	libor 3 months on YEN	real libor 3 months on US$	1 month FED effective	Gold price US$/oz.
2001Nov	3,43	3,39	3,26	3,20	4,00	0,08	0,21	2,09	276,16
2001Oct	3,72	3,60	3,46	3,37	4,43	0,08	0,27	2,49	283,06
2001Sep	4,05	3,98	3,88	3,77	4,73	0,06	0,39	3,07	283,42
2001Aug	4,46	4,35	4,22	4,11	5,00	0,08	0,85	3,65	272,39
2001Jul	4,52	4,47	4,39	4,31	5,25	0,08	1,03	3,77	267,53
2001Jun	4,53	4,45	4,35	4,31	5,26	0,07	0,59	3,97	270,23
2001May	4,66	4,64	4,56	4,52	5,25	0,08	0,49	4,21	272,35
2001Apr	4,78	4,68	4,57	4,48	5,40	0,10	1,34	4,80	260,48
2001Mar	4,78	4,71	4,58	4,47	5,55	0,19	2,04	5,31	263,03
2001Feb	4,80	4,76	4,67	4,59	5,76	0,41	1,81	5,49	261,87
2001Jan	4,80	4,77	4,68	4,57	5,84	0,50	1,97	5,98	265,49

Data sources:
Euribor 1 month
Euribor 3 months
Euribor 6 months
Euribor 12 months
3 months libor on GBP
3 months libor on YEN
3 months real libor on US$
FED 1 month effective rate
Gold price

TABLE 2 Correlation coefficients between the short term interest rates and the price of gold

TIME	1 month Euribor	3 months Euribor	6 months Euribor	12 months Euribor	3 months libor on GBP	3 months libor on YEN	3 months real libor on US$	FED - 1month Effective
PERIOD								
2001Jan-2014Aug	-0,71	-0,66	-0,63	-0,60	-0,79	0,09	-0,52	-0,60
PERIOD 1.								
2001Jan-2008Aug	0,34	0,44	0,49	0,53	0,68	0,87	0,11	0,38
PERIOD 2.								
2008Sep-2010Oct	-0,70	-0,72	-0,71	-0,69	-0,72	-0,90	-0,63	-0,39
PERIOD 3.								
2010Nov-2014Aug	0,34	0,40	0,44	0,45	0,56	0,75	-0,45	0,26

DISCUSSION

Considering results in the table 2 (correlation between the price of gold and the short term interest rates), people who measure only the correlation for the whole period would say: "The worldwide spread paradigm is 100% valid!" But we are in reality far away from this kind of "truth". There is no prove yet that the price of gold represents the dependent variable, where the chosen interest rate should represent the independent variable. Furthermore, there are no statistical tests, where some kind of significance of chosen variables would be confirmed at least with the

p level numbers under 0,05. So, let us continue with the observation of the period No. 1, where worldwide spread paradigm falls totally apart. But then this has turned into another direction inside of crisis period No. 2, where the worldwide spread paradigm seems to find it's home again. However, the life continues and in the third period the paradigm falls apart again. The problem of worldwide spread paradigm is, that we are actually still living in the period No. 3 and if correlation coefficients are telling us some kind of the truth, then this truth sounds like: In case that there will be an increase of 1 month Euribor (for 1 percent of its own value), as a consequence we will see an increase in the price of gold for 0,34%. And it's similar to be seen at almost all short term interest rates with the exception of 3 months real libor on US$ where the real impact of interest rate hike (for 1 percent of its own value) should bring decrease in the gold price for 0,45%. But let us remember how the real rate is calculated. In august 2014 the 3 months libor on US$ was 0,23%, while the inflation rate from august 2013 to august 2014 was actually 1,70% and so the difference is - 1,47%. This means that 3 months real libor on US$ is in the reality much more inflation rate as an interest rate.

Conclusion: The worldwide spread paradigm could hold only in case if the 3 months real libor rate on US$ remains the only change in short term interest rates. However, as already mentioned the world likes to follow the US and, furthermore, we are already facing the worldwide spread paradigm falling apart inside the US in the case of FED's 1 month effective rate. If this rate goes up for 1% of its own value in the third observed (current) period, then as a consequence the price of gold could rise for 0,26%.

TABLE 3 Long term interest rates (10 years rate in % per annum) and the price of gold

TIME										Gold price
	USA	GB	Germany	Euro 18	Japan	Spain	Italy	Portugal	Greece	US$/oz.
2014Aug	2,42	2,52	0,95	1,99	0,49	2,31	2,63	3,47	6,09	1.295,99
2014Jul	2,54	2,83	1,11	2,16	0,53	2,65	2,79	3,69	6,10	1.310,97
2014Jun	2,60	2,91	1,26	2,28	0,54	2,71	2,92	3,50	5,93	1.279,10
2014May	2,56	2,69	1,33	2,55	0,57	2,93	3,12	3,66	6,38	1.287,53
2014Apr	2,71	2,74	1,46	2,61	0,61	3,10	3,23	3,82	6,20	1.299,00
2014Mar	2,72	2,81	1,51	2,89	0,61	3,31	3,40	4,43	6,90	1.336,08
2014Feb	2,71	2,96	1,56	3,09	0,59	3,56	3,65	4,94	7,70	1.300,97
2014Jan	2,86	3,07	1,76	3,21	0,61	3,78	3,87	5,21	8,18	1.244,80
2013Dec	2,90	3,09	1,80	3,31	0,69	4,14	4,11	6,04	8,66	1.255,40
2013Nov	2,72	2,75	1,68	3,17	0,61	4,11	4,10	5,98	8,41	1.275,82
2013Oct	2,62	2,67	1,76	3,16	0,59	4,22	4,25	6,33	8,74	1.316,18
2013Sep	2,81	2,86	1,89	3,41	0,67	4,42	4,54	7,06	10,15	1.348,80
2013Aug	2,74	2,86	1,73	3,10	0,71	4,51	4,42	6,60	10,01	1.347,10
2013Jul	2,58	2,60	1,56	3,10	0,79	4,66	4,42	6,87	10,53	1.286,72
2013Jun	2,30	2,31	1,53	3,07	0,82	4,67	4,38	6,30	10,07	1.342,36
2013May	1,93	1,94	1,29	2,68	0,88	4,25	3,96	5,46	9,07	1.413,50
2013Apr	1,76	1,78	1,20	2,86	0,59	4,59	4,28	6,15	11,58	1.485,08
2013Mar	1,96	2,08	1,35	3,03	0,49	4,92	4,64	6,10	11,38	1.592,86
2013Feb	1,98	2,29	1,54	2,86	0,67	5,22	4,49	6,40	10,95	1.627,59
2013Jan	1,91	2,19	1,51	2,39	0,78	5,05	4,21	6,24	11,10	1.670,95
2012Dec	1,72	1,84	1,30	2,10	0,78	5,34	4,54	7,25	13,33	1.688,53
2012Nov	1,65	1,77	1,34	2,25	0,71	5,69	4,85	8,32	17,20	1.721,14
2012Oct	1,75	1,76	1,47	2,31	0,76	5,65	4,95	8,17	17,96	1.747,01
2012Sep	1,72	1,71	1,49	2,43	0,76	5,92	5,25	8,62	20,91	1.744,45

TIME										Gold price
	USA	GB	Germany	Euro 18	Japan	Spain	Italy	Portugal	Greece	US$/oz.
2012Aug	1,68	1,67	1,34	3,01	0,80	6,58	5,82	9,89	24,34	1.626,03
2012Jul	1,53	1,64	1,24	3,25	0,78	6,80	6,00	10,49	25,82	1.593,91
2012Jun	1,62	1,77	1,30	3,41	0,79	6,59	5,90	10,56	27,82	1.596,70
2012May	1,80	1,93	1,34	3,53	0,85	6,13	5,78	11,59	26,90	1.585,50
2012Apr	2,05	2,18	1,62	3,39	0,91	5,79	5,68	12,01	21,48	1.650,07
2012Mar	2,17	2,30	1,83	3,29	0,97	5,17	5,05	13,01	19,06	1.673,77
2012Feb	1,97	2,21	1,85	3,75	0,96	5,11	5,55	12,81	29,24	1.742,62
2012Jan	1,97	2,10	1,82	3,92	0,96	5,40	6,54	13,85	25,91	1.656,12
2011Dec	1,98	2,17	1,93	4,11	0,97	5,51	6,81	13,08	21,14	1.652,31
2011Nov	2,01	2,29	1,87	4,41	1,06	6,19	7,06	11,89	17,92	1.738,98
2011Oct	2,15	2,53	2,00	4,09	1,04	5,26	5,97	11,72	18,04	1.665,21
2011Sep	1,98	2,48	1,83	4,04	0,98	5,20	5,75	11,34	17,78	1.771,85
2011Aug	2,30	2,76	2,21	4,21	1,02	5,25	5,27	10,93	15,90	1.755,81
2011Jul	3,00	3,29	2,74	4,59	1,08	5,83	5,46	12,15	16,15	1.572,81
2011Jun	3,00	3,39	2,89	4,37	1,08	5,48	4,82	10,87	16,69	1.528,66
2011May	3,17	3,49	3,06	4,37	1,12	5,32	4,76	9,63	15,94	1.510,44
2011Apr	3,46	3,75	3,34	4,66	1,22	5,33	4,84	9,19	13,86	1.473,81
2011Mar	3,41	3,72	3,21	4,49	1,21	5,25	4,88	7,80	12,44	1.424,01
2011Feb	3,58	3,87	3,20	4,48	1,24	5,26	4,74	7,34	11,40	1.372,73
2011Jan	3,39	3,71	3,02	3,94	1,21	5,38	4,73	6,95	11,73	1.356,40
2010Dec	3,29	3,59	2,91	4,07	1,13	5,37	4,60	6,53	12,01	1.390,55
2010Nov	2,76	3,30	2,53	3,73	1,16	4,69	4,18	6,91	11,52	1.369,89
2010Oct	2,54	3,06	2,35	3,34	0,90	4,04	3,80	6,05	9,57	1.342,02
2010Sep	2,65	3,11	2,30	3,50	0,90	4,10	3,86	6,08	11,34	1.270,98
2010Aug	2,70	3,21	2,35	3,44	1,02	4,04	3,80	5,31	10,70	1.215,81
2010Jul	3,01	3,48	2,62	3,62	1,08	4,43	4,03	5,49	10,34	1.192,97
2010Jun	3,20	3,57	2,54	3,70	1,08	4,56	4,10	5,54	9,10	1.232,92
2010May	3,42	3,77	2,73	3,68	1,26	4,08	3,99	5,02	7,97	1.205,43
2010Apr	3,85	4,09	3,06	4,17	1,29	3,90	4,00	4,78	7,83	1.148,69
2010Mar	3,73	4,08	3,10	3,99	1,36	3,83	3,95	4,31	6,24	1.113,34
2010Feb	3,69	4,07	3,17	4,11	1,30	3,98	4,05	4,56	6,46	1.095,41
2010Jan	3,73	4,03	3,26	4,10	1,31	3,99	4,08	4,17	6,02	1.117,96
2009Dec	3,59	3,89	3,14	3,87	1,27	3,80	4,01	3,91	5,49	1.134,72
2009Nov	3,40	3,76	3,22	3,84	1,25	3,79	4,06	3,80	4,84	1.127,04
2009Oct	3,39	3,57	3,21	3,80	1,40	3,77	4,10	3,85	4,57	1.043,16
2009Sep	3,40	3,66	3,26	3,87	1,26	3,80	4,09	3,94	4,56	996,59
2009Aug	3,59	3,71	3,31	3,89	1,31	3,78	4,12	3,95	4,52	949,38
2009Jul	3,56	3,82	3,34	4,09	1,39	4,01	4,37	4,25	4,89	934,23
2009Jun	3,72	3,72	3,47	4,33	1,36	4,24	4,61	4,50	5,33	945,67
2009May	3,29	3,62	3,37	4,13	1,48	4,05	4,42	4,29	5,22	928,64
2009Apr	2,93	3,41	3,13	4,09	1,40	4,01	4,36	4,53	5,50	890,20
2009Mar	2,82	3,25	3,02	4,14	1,32	4,06	4,46	4,68	5,87	924,27
2009Feb	2,87	3,69	3,13	4,20	1,28	4,23	4,54	4,52	5,70	943,16
2009Jan	2,52	3,67	3,07	4,10	1,27	4,15	4,62	4,32	5,60	858,69
2008Dec	2,42	3,62	3,05	3,89	1,21	3,86	4,47	4,00	5,08	816,09
2008Nov	3,53	4,26	3,56	4,20	1,38	4,15	4,74	4,35	5,09	760,86
2008Oct	3,81	4,58	3,88	4,42	1,49	4,47	4,78	4,56	4,93	806,62
2008Sep	3,69	4,57	4,09	4,50	1,48	4,57	4,80	4,66	4,88	829,93
2008Aug	3,89	4,73	4,20	4,50	1,43	4,56	4,81	4,69	4,87	839,03
2008Jul	4,01	5,05	4,49	4,82	1,54	4,80	5,10	4,95	5,15	939,77

TIME										Gold price
	USA	GB	Germany	Euro 18	Japan	Spain	Italy	Portugal	Greece	US$/oz.
2008Jun	4,10	5,21	4,52	4,81	1,60	4,79	5,11	4,96	5,17	889,49
2008May	3,88	4,87	4,20	4,42	1,78	4,42	4,70	4,60	4,74	888,66
2008Apr	3,68	4,64	4,04	4,28	1,60	4,31	4,53	4,52	4,54	909,70
2008Mar	3,51	4,44	3,80	4,07	1,25	4,12	4,38	4,36	4,42	968,43
2008Feb	3,74	4,62	3,95	4,14	1,43	4,14	4,35	4,27	4,36	922,30
2008Jan	3,74	4,49	4,03	4,23	1,43	4,18	4,40	4,31	4,40	889,60
2007Dec	4,10	4,69	4,21	4,38	1,53	4,35	4,54	4,47	4,53	803,21
2007Nov	4,15	4,73	4,09	4,25	1,50	4,25	4,45	4,36	4,43	806,25
2007Oct	4,53	4,96	4,28	4,40	1,62	4,38	4,59	4,52	4,58	754,60
2007Sep	4,52	4,99	4,22	4,37	1,70	4,35	4,57	4,50	4,56	712,65
2007Aug	4,67	5,15	4,30	4,43	1,58	4,40	4,58	4,56	4,62	665,41
2007Jul	5,00	5,41	4,50	4,63	1,81	4,60	4,76	4,73	4,79	665,29
2007Jun	5,10	5,43	4,56	4,66	1,90	4,62	4,77	4,75	4,80	655,49
2007May	4,75	5,15	4,28	4,37	1,73	4,34	4,49	4,44	4,51	666,86
2007Apr	4,69	5,04	4,15	4,25	1,65	4,21	4,37	4,30	4,40	679,37
2007Mar	4,56	4,82	3,94	4,02	1,63	4,01	4,18	4,10	4,20	654,89
2007Feb	4,72	4,90	4,05	4,12	1,64	4,11	4,28	4,19	4,30	664,74
2007Jan	4,76	4,87	4,02	4,10	1,71	4,07	4,26	4,18	4,28	631,17
2006Dec	4,56	4,62	3,77	3,90	1,65	3,82	4,04	3,96	4,04	629,79
2006Nov	4,60	4,55	3,71	3,80	1,69	3,75	3,97	3,89	3,98	627,83
2006Oct	4,73	4,62	3,79	3,88	1,72	3,81	4,07	3,98	4,08	585,78
2006Sep	4,72	4,55	3,75	3,84	1,63	3,76	4,04	3,93	4,06	598,18
2006Aug	4,88	4,65	3,88	3,97	1,67	3,89	4,17	4,06	4,19	632,59
2006Jul	5,09	4,66	4,01	4,10	1,93	4,02	4,31	4,14	4,33	633,71
2006Jun	5,11	4,66	3,96	4,08	1,90	3,99	4,30	4,10	4,31	596,14
2006May	5,11	4,65	3,96	4,06	1,85	3,99	4,29	4,07	4,30	675,39
2006Apr	4,99	4,52	3,89	4,01	1,96	3,92	4,22	4,03	4,23	610,65
2006Mar	4,72	4,32	3,64	3,73	1,76	3,65	3,92	3,77	3,95	557,09
2006Feb	4,57	4,15	3,47	3,55	1,60	3,48	3,70	3,60	3,77	554,99
2006Jan	4,42	4,08	3,32	3,39	1,55	3,33	3,54	3,45	3,60	549,86
2005Dec	4,47	4,22	3,34	3,41	1,49	3,37	3,55	3,46	3,57	510,10
2005Nov	4,54	4,31	3,45	3,53	1,45	3,48	3,66	3,58	3,67	476,67
2005Oct	4,46	4,35	3,24	3,32	1,51	3,27	3,44	3,39	3,45	469,90
2005Sep	4,20	4,21	3,07	3,16	1,45	3,09	3,29	3,23	3,30	456,05
2005Aug	4,26	4,32	3,23	3,32	1,37	3,23	3,45	3,39	3,47	437,93
2005Jul	4,18	4,30	3,20	3,32	1,30	3,22	3,44	3,35	3,46	424,48
2005Jun	4,00	4,28	3,13	3,25	1,14	3,19	3,41	3,19	3,44	430,66
2005May	4,14	4,42	3,30	3,41	1,24	3,36	3,55	3,35	3,60	421,87
2005Apr	4,34	4,62	3,48	3,57	1,26	3,53	3,65	3,50	3,76	429,23
2005Mar	4,50	4,80	3,70	3,76	1,33	3,73	3,84	3,70	3,92	434,32
2005Feb	4,17	4,59	3,54	3,62	1,42	3,58	3,68	3,55	3,69	423,35
2005Jan	4,22	4,54	3,56	3,63	1,31	3,59	3,71	3,56	3,69	424,03
2004Dec	4,23	4,53	3,58	3,69	1,40	3,64	3,79	3,64	3,77	442,08
2004Nov	4,19	4,69	3,78	3,87	1,45	3,85	4,00	3,86	3,97	439,38
2004Oct	4,10	4,77	3,89	3,98	1,48	3,97	4,13	3,99	4,11	420,46
2004Sep	4,13	4,91	4,02	4,11	1,39	4,08	4,25	4,12	4,22	405,28
2004Aug	4,28	5,01	4,08	4,17	1,59	4,15	4,28	4,18	4,28	400,51
2004Jul	4,50	5,11	4,24	4,34	1,81	4,28	4,44	4,35	4,44	398,09
2004Jun	4,73	5,20	4,31	4,44	1,81	4,39	4,54	4,47	4,55	392,37
2004May	4,72	5,11	4,25	4,39	1,51	4,33	4,49	4,42	4,49	383,78

TIME										Gold price
	USA	GB	Germany	Euro 18	Japan	Spain	Italy	Portugal	Greece	US$/oz.
2004Apr	4,35	4,96	4,10	4,24	1,52	4,20	4,35	4,25	4,35	403,26
2004Mar	3,83	4,71	3,91	4,02	1,42	4,01	4,17	4,00	4,17	406,67
2004Feb	4,08	4,81	4,11	4,18	1,21	4,15	4,34	4,19	4,35	404,88
2004Jan	4,15	4,79	4,17	4,26	1,33	4,19	4,32	4,25	4,37	413,79
2003Dec	4,27	4,90	4,29	4,36	1,33	4,34	4,46	4,40	4,45	406,95
2003Nov	4,30	5,07	4,35	4,44	1,33	4,40	4,51	4,48	4,51	389,91
2003Oct	4,29	4,91	4,22	4,31	1,44	4,27	4,38	4,36	4,38	378,92
2003Sep	4,27	4,71	4,17	4,23	1,42	4,21	4,40	4,29	4,32	378,95
2003Aug	4,45	4,60	4,13	4,21	1,41	4,19	4,31	4,26	4,29	359,77
2003Jul	3,98	4,41	3,97	4,06	0,96	4,03	4,29	4,10	4,12	351,02
2003Jun	3,33	4,11	3,62	3,72	0,53	3,70	4,13	3,77	3,81	356,35
2003May	3,57	4,22	3,82	3,92	0,58	3,88	4,04	3,91	4,02	355,68
2003Apr	3,96	4,47	4,15	4,23	0,66	4,19	4,31	4,18	4,38	328,18
2003Mar	3,81	4,32	4,00	4,13	0,72	4,04	4,18	4,08	4,26	340,55
2003Feb	3,90	4,21	3,95	4,06	0,83	4,01	4,16	4,04	4,24	358,97
2003Jan	4,05	4,39	4,18	4,27	0,84	4,24	4,38	4,27	4,43	356,86
2002Dec	4,03	4,56	4,33	4,41	0,98	4,43	4,55	4,45	4,58	331,92
2002Nov	4,05	4,64	4,48	4,59	0,98	4,60	4,74	4,66	4,76	319,07
2002Oct	3,94	4,62	4,46	4,62	1,10	4,62	4,76	4,70	4,79	316,56
2002Sep	3,87	4,50	4,38	4,52	1,13	4,58	4,62	4,63	4,73	319,14
2002Aug	4,26	4,75	4,59	4,73	1,26	4,78	4,83	4,85	4,95	310,25
2002Jul	4,65	5,00	4,87	5,03	1,30	5,07	5,11	5,12	5,21	313,29
2002Jun	4,93	5,10	5,02	5,17	1,33	5,23	5,26	5,26	5,36	321,18
2002May	5,16	5,27	5,17	5,30	1,37	5,36	5,41	5,40	5,52	314,49
2002Apr	5,21	5,23	5,15	5,30	1,39	5,34	5,40	5,39	5,51	302,68
2002Mar	5,28	5,22	5,16	5,32	1,42	5,34	5,41	5,39	5,51	294,06
2002Feb	4,91	4,93	4,92	5,07	1,50	5,11	5,20	5,15	5,31	295,50
2002Jan	5,04	4,92	4,86	5,02	1,42	5,05	5,14	5,08	5,24	281,51
2001Dec	5,09	4,89	4,74	4,96	1,33	4,97	5,05	5,01	5,13	275,85
2001Nov	4,65	4,63	4,45	4,67	1,33	4,76	4,80	4,76	4,90	276,16
2001Oct	4,57	4,83	4,60	4,82	1,36	4,91	4,96	4,92	5,07	283,06
2001Sep	4,73	4,99	4,81	5,04	1,35	5,14	5,20	5,17	5,31	283,42
2001Aug	4,97	4,99	4,82	5,06	1,34	5,16	5,22	5,19	5,33	272,39
2001Jul	5,24	5,20	5,02	5,25	1,31	5,35	5,40	5,39	5,52	267,53
2001Jun	5,28	5,20	5,00	5,21	1,15	5,33	5,39	5,38	5,48	270,23
2001May	5,39	5,12	5,05	5,26	1,25	5,36	5,45	5,42	5,54	272,35
2001Apr	5,14	4,95	4,83	5,10	1,32	5,18	5,28	5,27	5,39	260,48
2001Mar	4,89	4,70	4,67	4,94	1,17	5,04	5,13	5,09	5,28	263,03
2001Feb	5,10	4,82	4,78	5,02	1,42	5,12	5,18	5,14	5,35	261,87
2001Jan	5,16	4,85	4,80	5,01	1,51	5,08	5,18	5,16	5,35	265,49

Data sources:
Long term interest rates (Finance, Monthly Statistics, Long term interest rates)
Gold price

TABLE 4 Correlation coefficients between the long term interest rates and the price of gold

TIME	10 years	10 years	10 years	10 years	10 years	10 years	10 years	10 years	10 years
	USA	GB	Germany	Euro 18	Japan	Spain	Italy	Portugal	Greece
PERIOD									
2001Jan-2014Aug	-0,88	-0,88	-0,86	-0,57	-0,54	0,33	0,21	0,71	0,79
PERIOD 1.									
2001Jan-2008Aug	-0,27	-0,02	-0,31	-0,27	0,51	-0,28	-0,21	-0,21	-0,23
PERIOD 2.									
2008Sep-2010Oct	-0,12	-0,47	-0,79	-0,78	-0,75	-0,12	-0,91	0,60	0,77
PERIOD 3.									
2010Nov-2014Aug	-0,65	-0,55	-0,05	0,16	0,29	0,72	0,74	0,75	0,75

DISCUSSION

So, let us take a look at the table 4, where analogically to the short term interest rates we analyze the situation with the long term (10 years) interest rates. It doesn't matter if we observe the whole period, or just the last period. The relationship between long term interest rates and the price of gold is totally different in the United States and Great Britain, as for instance in so called PIGS (Portugal, Italy, Greece, Spain) countries. Once again we come to the same conclusion, that worldwide spread paradigm could be valid as long as we can limit our thoughts to the US (in this case also to Great Britain), but it's not realistic to expect from other countries to hold their interest rates untouched observing the capital outflows from their countries to US and to those who followed the US. We did not calculate the averages of correlation coefficients and we did that intentionally. The purpose is pretty clear. We cannot give the same significance to Portugal and to USA. So, we have to admit that in the case of long term interest rates there is obviously greater probability for the validity of worldwide spread paradigm, as in the case of short term interest rates.

But let us continue, because this type of research cannot take only one separate factor (in our case interest rates) into consideration. Searching for the prognostic model and trying to implement multiple regression analysis by using the SPSS software computer program, we have come to the following table 5 on the next page. I have to admit that it looks pretty complicated, but we don't need the perfect statistical knowledge to understand what is really important to understand - and this is just the red column, where Sig. is a sign for significance.

All 18 factors in the left column have showed a great direct correlation with the price of gold (min +/-0,84). However, the Durbin Watson value was less than 1 (actually it was just 0,746). This means that these 18 parameters are not only highly directly correlated to the price of gold but also highly directly correlated between themselves, which was the main reason why we implement a logarithmic transformation to enable some kind of realistic approach to multiple regression analysis. But the results confirmed that multiple regression analysis is surely not appropriate method in this case.

However, trying to create a prognostic model, a computer program marked (in the red Sig. column) the value of Indian stock index NIFTY, currency relationship US$/YEN, price for silver, price for corn and the value of FED monetary aggregates (M1,M2) much more significant as long term interest rates. The numbers in Sig. column represent the p value and this number exceed the value of 0,05 exactly by the long term interest rates, Despite the highest direct correlations to the price of gold (in our table No. 4), it might be that the long term

interest rates have no significant impact on the price of gold at all. The only exemption could be the US 10 year interest rate with p value 0,027. Once more: this number is (from the long term interest rates) the only p value under 0,05, which is the limit of tolerance where the statistical science is still prepared to acknowledge the significance of observed parameter.

TABLE 5 Significance in multiple regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1,9	0,659		2,884	0,005		
10 year interest rate in Germany	2,14E-05	0,000	0,079	1,610	0,110	0,013	75,449
10 year interest rate in USA	-2,24E-05	0,000	-0,084	-2,243	0,027	0,023	44,116
10 year interest rate in GB	5,75E-07	0,000	0,002	0,050	0,961	0,018	55,013
NIFTY	1,38E-05	0,000	0,092	3,411	0,001	0,043	23,059
Consumer price index - USA	0,001	0,002	0,046	0,364	0,716	0,002	495,925
US$/CYN	0,037	0,018	0,109	2,067	0,041	0,011	87,564
US$/YEN	-0,002	0,000	-0,110	-3,873	0,000	0,039	25,813
London - daily average of gold sells in billions of US$	0,002	0,001	0,082	2,083	0,039	0,020	49,717
London - daily average number of all transactions	1,22E-05	0,000	0,031	1,098	0,274	0,039	25,743
Gold stocks in Euro-area	-1,96E-05	0,000	-0,053	-0,522	0,603	0,003	328,155

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	B
Silver in US$/oz.	0,006	0,001	0,218	4,216	0,000	0,012	84,426
Brent oil in US$/barel	0,000	0,001	-0,080	-1,181	0,240	0,007	145,686
Oil in US$/barel	0,002	0,001	0,135	1,980	0,050	0,007	147,797
Corn $/bu.	-0,022	0,008	-0,136	-2,963	0,004	0,015	66,757
Soybeans $/bu.	0,002	0,002	0,019	0,640	0,523	0,035	28,230
Coffe in US cents/lb	-6,48E-05	0,000	-0,012	-0,372	0,711	0,029	33,961
FED M2	0,000	0,000	0,871	4,864	0,000	0,001	1016,121
FED M1	0,000	0,000	-0,311	-2,994	0,003	0,003	341,986

In search of a successful prognostic model we also used a stepwise method by shortening the mistakes between forecasted gold prices and the real gold prices, which followed one month later. And in this case, where the direction of the future movements in the gold price was predicted correctly 35 times in a row (each time from the average price in the current month to the average price in the next month), the greatest importance in prognostic model (similar as when the computer chooses the valid parameters alone) has not been given to the long term interest rates. I have no time and place here to introduce the magnificent formula and we will do this on some other occasion. However, I could say that inside of this algorithm the weighting of US$/YEN is over 54%. This means that other, less important parameters, represent all together less than 46%.

Taking the economic multiplier effects into account, we found that the exchange rate US$/YEN plays a key role in short-term movements of the gold price. Maybe it's not enough to say that the correlation between the currency pair US$/YEN and the price of gold is in the recent years always over 90% (currently 92% with correlation coefficient - 0,92). A look back to the table 5 shows for currency pair USD/YEN best possible (100%) significance with the p value 0,000. Furthermore, the gold bulls will never forget a beautiful days in September 2011, when the gold price sometimes exceed the level of 1900$/oz. and the average gold price in this month was 1.771,85 US$/oz. But now I have to add that one American dollar was in September 2011 equal to just 76 YEN and now (November 2014) it's approaching the value of 120 YEN. Traders in the US don't see the value of US dollar the same way as we in Europe. The relation to Euro is for them less important. And so the computer trading programs are prepared to react whenever the Dollar gets stronger or weaker against the Japanese currency. Facing the reality of the latest Japanese economic disaster, there is a reasonable question: How long can the fall of the YEN continue? And I think that is not pretty long. We are already facing the fact that the rest of the world is losing their market positions on what has been left from the Japanese market. But the greatest threat comes from Japanese exporters, who enjoy in a paradise of a falling YEN and they can actually approve new discounts to their foreign customers on a daily basis. This story will come to its end, when somebody clever enough will ask himself: "Why have we in the US spent billions and billions of Dollars in order to save our automotive industry?!"

CONCLUSION

It might be that the price of gold will fall for 0,65% if there will be an interest hike at long term interest rates in the US for 1% (for instance from 2,42 to 2,44%), but this kind of scenario is not confirmed by any kind of scientific approach and will probably not come into place.

The fall has it's reasonable limits in all calculations. So, a 100% increase in US long term interest rates (for instance from 2,42 to 4,84%) should bring 65% decrease in a gold price?! Well, the problem is that at current gold price 1200$/oz. approximately 15% of world production capacities are not able to make any profit at all and 35% cannot make any profit at the market price under 1100$/oz.

So, let's be realistic. The interest rate hike in the US could lead to a lower price of gold. However, if (better to say when) the rest of the world will increase interest rates, we will face an increase of the gold price, which will probably far exceed the previous price level from the time before the US took their first step.

Let us explain everything also on the other way. On the next page we have the data for the main world economic stock indexes and the gold price.

TABLE 6 Stock indexes and the price of gold

TIME	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	Gold price in US$/oz.
2014Aug	1961,53	16775,15	4464,83	6712,24	3089,05	9273,08	7787,35	15358,70	1.295,99
2014Jul	1973,10	16988,26	4434,13	6772,03	3192,31	9751,79	7676,76	15379,29	1.310,97
2014Jun	1947,09	16843,75	4332,74	6804,31	3271,69	9927,43	7542,84	15131,79	1.279,10
2014May	1889,77	16567,25	4135,37	6834,81	3197,39	9709,52	7083,16	14343,14	1.287,53
2014Apr	1864,26	16399,50	4119,31	6651,97	3171,53	9489,91	6754,74	14475,33	1.299,00
2014Mar	1863,52	16308,63	4276,36	6631,70	3093,97	9339,50	6508,64	14694,83	1.336,08
2014Feb	1817,03	15958,44	4199,45	6693,05	3085,86	9507,99	6098,74	14617,57	1.300,97
2014Jan	1822,36	16243,72	4154,36	6716,35	3092,40	9516,78	6219,60	15578,28	1.244,80
2013Dec	1807,77	16095,77	4075,89	6584,00	3010,19	9235,01	6246,87	15655,23	1.255,40
2013Nov	1783,54	15870,83	3957,53	6694,32	3055,98	9170,55	6118,70	14931,74	1.275,82
2013Oct	1720,03	15289,29	3848,20	6571,95	2988,88	8800,49	6083,87	14329,02	1.316,18
2013Sep	1687,17	15269,84	3731,26	6552,36	2864,55	8497,84	5791,90	14372,12	1.348,80
2013Aug	1670,09	15195,35	3639,93	6520,14	2803,85	8332,46	5523,49	13726,66	1.347,10
2013Jul	1668,67	15390,20	3559,71	6517,87	2686,53	8161,84	5909,24	14317,54	1.286,72
2013Jun	1618,77	15035,75	3416,74	6299,44	2655,76	8089,15	5782,08	13106,62	1.342,36
2013May	1639,84	15172,18	3440,38	6642,19	2785,76	8299,87	6056,82	14532,41	1.413,50
2013Apr	1570,70	14675,91	3251,35	6363,31	2636,35	7726,33	5709,78	13224,06	1.485,08
2013Mar	1550,83	14418,26	3236,17	6434,45	2680,18	7913,88	5749,64	12244,03	1.592,86
2013Feb	1512,31	13967,33	3169,21	6316,36	2630,39	7666,72	5893,59	11336,44	1.627,59
2013Jan	1480,39	13615,32	3125,91	6150,40	2715,30	7747,57	6026,40	10750,85	1.670,95
2012Dec	1422,29	13104,14	3019,51	5922,72	2625,55	7583,98	5890,96	9814,38	1.688,53
2012Nov	1394,51	13025,58	3010,24	5787,52	2513,98	7407,26	5680,29	9059,86	1.721,14
2012Oct	1437,82	13096,46	2977,23	5831,80	2503,47	7366,38	5688,63	8827,39	1.747,01
2012Sep	1443,42	13437,13	3116,23	5805,44	2530,69	7345,47	5491,93	8948,59	1.744,45
2012Aug	1403,44	13090,84	3066,96	5796,95	2424,50	7264,21	5329,72	8949,88	1.626,03

TIME	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	Gold price in US$/oz.
2012Jul	1359,78	13008,68	2939,52	5636,47	2258,36	7147,77	5222,01	8760,68	1.593,91
2012Jun	1323,48	12880,09	2935,05	5480,44	2152,75	7018,85	5074,21	8638,08	1.596,70
2012May	1341,27	12393,45	2827,34	5461,44	2198,50	6946,24	4968,81	8842,54	1.585,50
2012Apr	1386,43	13213,63	3046,36	5725,58	2340,78	6925,85	5255,71	9627,42	1.650,07
2012Mar	1389,24	13212,04	3091,57	5875,40	2532,18	6929,89	5295,58	9962,35	1.673,77
2012Feb	1352,49	12952,07	2966,89	5893,35	2508,24	6789,64	5409,09	9242,33	1.742,62
2012Jan	1300,58	12632,91	2813,84	5694,45	2382,07	6288,00	4928,26	8616,71	1.656,12
2011Dec	1243,32	12217,56	2605,15	5480,09	2283,30	5867,71	4782,36	8505,99	1.652,31
2011Nov	1226,41	12045,68	2620,34	5402,51	2239,58	5826,46	5004,28	8506,11	1.738,98
2011Oct	1207,22	11955,01	2684,41	5408,62	2312,30	5871,78	5060,02	8733,56	1.665,21
2011Sep	1173,88	10913,38	2415,40	5228,49	2124,31	5402,27	5015,58	8695,42	1.771,85
2011Aug	1185,31	11613,53	2579,46	5271,31	2297,21	5923,83	5516,80	9072,94	1.755,81
2011Jul	1325,18	12143,24	2756,38	5909,81	2743,46	7281,96	5076,74	9996,68	1.572,81
2011Jun	1287,29	12414,34	2773,52	5792,17	2766,61	7158,68	5596,59	9541,53	1.528,66
2011May	1338,31	12569,79	2835,30	5937,97	2885,77	7330,60	5472,64	9650,78	1.510,44
2011Apr	1331,51	12810,54	2873,54	6007,86	2947,16	7230,47	5492,20	9644,63	1.473,81
2011Mar	1304,49	12319,73	2781,07	5856,92	2890,36	6952,82	5839,09	9852,45	1.424,01
2011Feb	1321,12	12226,34	2782,27	6020,97	3015,73	7294,16	5538,42	10622,27	1.372,73
2011Jan	1282,62	11891,93	2700,08	5971,59	2900,69	7039,68	5400,92	10449,53	1.356,40
2010Dec	1241,53	11577,51	2652,87	5868,38	2825,58	6988,33	5782,71	10254,46	1.390,55
2010Nov	1198,89	11006,02	2498,23	5734,36	2809,65	6744,41	5971,32	9797,18	1.369,89
2010Oct	1171,58	11118,49	2507,41	5687,18	2817,71	6436,31	6055,33	9455,09	1.342,02
2010Sep	1122,08	10788,05	2368,62	5514,59	2766,09	6214,87	6096,11	9346,72	1.270,98
2010Aug	1087,28	10014,72	2114,03	5279,55	2712,23	6122,40	5811,48	9268,24	1.215,81
2010Jul	1079,80	10465,94	2254,70	5158,39	2669,50	6061,31	5457,24	9456,84	1.192,97

TIME	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	Gold price in US$/oz.
2010Jun	1083,36	9774,02	2109,24	5139,44	2641,66	6080,80	5359,75	9786,05	1.232,92
2010May	1125,06	10136,63	2257,04	5222,87	2642,13	5966,35	5187,78	10103,98	1.205,43
2010Apr	1197,32	11008,61	2461,19	5720,74	2937,30	6216,26	5052,97	11139,77	1.148,69
2010Mar	1152,05	10856,63	2397,96	5621,02	2890,47	5965,05	5294,76	10671,49	1.113,34
2010Feb	1089,16	10325,26	2238,26	5231,92	2727,48	5586,02	5178,15	10175,13	1.095,41
2010Jan	1123,58	10067,33	2147,35	5411,65	2922,72	5863,22	4843,91	10661,62	1.117,96
2009Dec	1110,38	10428,05	2269,15	5309,54	2907,65	5850,21	5156,22	10169,01	1.134,72
2009Nov	1088,07	10344,84	2144,60	5242,28	2843,77	5642,16	5099,74	9640,99	1.127,04
2009Oct	1067,66	9712,73	2045,11	5161,18	2865,48	5680,04	4953,54	10066,24	1.043,16
2009Sep	1044,55	9712,28	2122,42	5033,13	2827,93	5583,87	4986,33	10302,87	996,59
2009Aug	1009,72	9496,28	2009,06	4755,64	2702,65	5394,89	4859,31	10430,35	949,38
2009Jul	934,11	9171,61	1978,50	4374,50	2462,10	4949,61	4571,11	9678,26	934,23
2009Jun	926,12	8447,00	1835,04	4349,25	2449,03	4930,82	4343,10	9810,31	945,67
2009May	901,67	8500,33	1774,33	4393,78	2426,68	4880,80	4436,37	9257,71	928,64
2009Apr	848,54	8168,12	1717,30	4046,34	2256,27	4517,81	3957,96	8755,50	890,20
2009Mar	757,13	7608,92	1528,59	3760,24	1993,93	3969,15	3359,83	7772,83	924,27
2009Feb	806,31	7062,93	1377,84	4074,18	2159,84	4259,66	2802,27	7707,34	943,16
2009Jan	866,59	8000,86	1476,42	4281,84	2344,93	4534,17	2819,21	8402,46	858,69
2008Dec	877,15	8776,39	1577,03	4270,75	2407,00	4655,16	2854,36	8492,14	816,09
2008Nov	883,27	8829,04	1535,57	4223,96	2452,87	4691,99	2895,80	8502,69	760,86
2008Oct	968,80	9325,01	1720,95	4282,05	2627,28	4946,95	2834,79	9080,49	806,62
2008Sep	1220,00	10850,66	2091,88	5231,70	3193,72	6133,50	3210,22	12126,18	829,93
2008Aug	1281,47	11543,55	2367,52	5465,71	3346,04	6421,49	4206,69	12989,35	839,03
2008Jul	1257,57	11378,02	2325,55	5375,22	3298,66	6341,49	4417,12	13153,03	939,77
2008Jun	1341,25	11350,01	2292,98	5778,27	3527,83	6716,84	4124,60	14084,60	889,49
2008May	1401,98	12638,32	2522,66	6187,20	3812,76	7056,12	4463,79	14000,24	888,66

TIME	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	Gold price in US$/oz.
2008Apr	1370,47	12820,13	2412,80	5993,57	3768,10	6762,71	5028,66	13382,09	909,70
2008Mar	1317,54	12262,89	2279,10	5676,27	3587,34	6499,59	4901,91	12586,62	968,43
2008Feb	1354,64	12266,39	2271,48	5908,31	3776,58	6882,64	4769,50	13522,57	922,30
2008Jan	1380,33	12650,36	2389,86	6031,19	4042,09	7323,65	5201,56	13953,43	889,60
2007Dec	1480,05	13264,82	2652,28	6431,14	4386,04	7941,91	5756,35	15520,05	803,21
2007Nov	1461,27	13371,72	2660,96	6325,12	4314,88	7715,15	5963,57	15513,99	806,25
2007Oct	1539,66	13930,01	2859,12	6599,27	4430,75	7950,70	5748,58	16910,39	754,60
2007Sep	1495,96	13895,63	2701,50	6345,11	4284,43	7638,45	5456,62	16233,85	712,65
2007Aug	1454,62	13357,74	2596,36	6177,22	4220,63	7463,64	4659,92	16460,95	665,41
2007Jul	1520,89	13211,99	2545,57	6561,87	4449,02	7888,85	4301,36	17986,78	665,29
2007Jun	1514,49	13408,62	2603,23	6597,96	4470,21	7874,48	4474,18	18001,37	655,49
2007May	1511,34	13627,64	2604,52	6569,76	4444,83	7581,97	4222,17	17577,73	666,86
2007Apr	1462,70	13062,91	2525,09	6434,35	4330,75	7237,29	3947,28	17466,50	679,37
2007Mar	1406,95	12354,35	2421,64	6205,71	4070,47	6705,96	3731,13	17129,95	654,89
2007Feb	1445,33	12268,63	2416,15	6362,69	4230,20	6913,13	4083,74	17729,39	664,74
2007Jan	1423,94	12621,69	2463,93	6237,79	4157,79	6692,54	4037,07	17269,97	631,17
2006Dec	1416,15	12463,15	2415,29	6171,56	4070,35	6492,59	3910,18	16790,21	629,79
2006Nov	1389,43	12221,93	2431,77	6167,75	4052,80	6368,68	3868,61	16103,89	627,83
2006Oct	1363,38	12080,73	2366,71	6101,38	3975,84	6161,30	3647,63	16515,65	585,78
2006Sep	1317,48	11679,07	2258,43	5896,10	3817,57	5901,00	3492,13	15930,89	598,18
2006Aug	1287,15	11381,15	2183,75	5877,73	3743,86	5750,31	3305,58	15786,78	632,59
2006Jul	1261,19	11185,68	2091,47	5833,67	3617,33	5594,17	3092,11	15133,16	633,71
2006Jun	1253,12	11150,22	2172,09	5668,05	3528,66	5495,31	2908,76	14990,31	596,14
2006May	1289,57	11168,31	2178,88	5846,00	3726,85	5845,80	3437,41	16462,15	675,39

TIME	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	Gold price in US$/oz.
2006Apr	1301,53	11367,14	2322,57	6054,41	3834,60	6010,01	3490,32	17232,97	610,65
2006Mar	1293,74	11109,32	2339,79	5938,81	3814,93	5861,71	3236,37	16325,16	557,09
2006Feb	1277,17	10993,41	2281,39	5806,74	3743,79	5762,51	3019,32	16187,64	554,99
2006Jan	1277,75	10864,86	2305,82	5711,15	3626,94	5494,00	2892,68	16103,44	549,86
2005Dec	1262,37	10717,50	2205,32	5547,24	3550,06	5343,13	2772,61	15664,04	510,10
2005Nov	1238,65	10805,87	2232,82	5458,19	3404,89	5092,51	2568,93	14362,01	476,67
2005Oct	1191,96	10440,07	2120,30	5292,92	3340,06	4951,82	2486,78	13384,93	469,90
2005Sep	1225,56	10568,70	2151,69	5392,56	3351,85	4946,14	2511,70	12986,62	456,05
2005Aug	1224,27	10481,60	2152,09	5311,00	3303,32	4886,30	2357,56	12204,98	437,93
2005Jul	1220,91	10640,91	2184,83	5228,04	3267,10	4726,58	2236,70	11718,86	424,48
2005Jun	1202,26	10274,97	2056,96	5050,30	3151,66	4569,21	2136,19	11402,75	430,66
2005May	1179,21	10467,48	2068,22	4928,92	3023,47	4329,55	2002,28	11071,43	421,87
2005Apr	1164,42	10192,51	1921,65	4887,81	3013,75	4293,81	1987,10	11377,23	429,23
2005Mar	1193,88	10503,76	1999,23	4961,84	3065,77	4357,40	2096,23	11812,45	434,32
2005Feb	1199,73	10766,23	2051,72	4999,01	3050,42	4344,74	2067,39	11545,71	423,35
2005Jan	1181,56	10489,94	2062,41	4826,49	2957,03	4246,44	1977,83	11401,15	424,03
2004Dec	1199,69	10783,01	2175,44	4746,38	2926,00	4216,39	2021,94	11086,34	442,08
2004Nov	1169,52	10428,02	2096,81	4744,16	2882,70	4108,66	1873,94	10963,51	439,38
2004Oct	1118,07	10027,47	1974,99	4645,18	2794,38	3963,14	1793,78	11028,93	420,46
2004Sep	1117,47	10080,27	1896,84	4560,74	2748,65	3909,43	1691,96	11076,83	405,28
2004Aug	1088,94	10173,92	1838,10	4382,64	2646,93	3760,09	1615,30	10989,34	400,51
2004Jul	1106,73	10139,71	1887,36	4362,70	2730,37	3883,56	1568,08	11390,75	398,09
2004Jun	1132,93	10435,48	2047,79	4478,33	2792,17	3986,44	1506,12	11527,72	392,37
2004May	1103,63	10188,45	1986,74	4453,08	2728,59	3869,15	1640,20	11140,98	383,78
2004Apr	1133,36	10225,57	1920,15	4515,52	2860,87	4036,81	1847,41	11962,79	403,26
2004Mar	1123,98	10357,70	1994,22	4446,71	2829,00	3921,38	1779,63	11441,08	406,67

TIME	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	Gold price in US$/oz.
2004Feb	1143,48	10583,92	2029,82	4443,12	2874,76	4064,29	1848,67	10618,60	404,88
2004Jan	1131,91	10488,07	2066,15	4470,78	2839,12	4077,49	1906,00	10876,40	413,79
2003Dec	1081,22	10453,92	2003,37	4392,33	2702,17	3866,93	1740,06	10315,86	406,95
2003Nov	1050,33	9782,46	1960,26	4349,43	2618,06	3722,77	1580,93	10205,39	389,91
2003Oct	1038,73	9801,12	1932,21	4290,43	2523,27	3498,74	1505,38	10720,13	378,92
2003Sep	1018,92	9275,06	1786,94	4234,96	2553,31	3506,76	1369,03	10644,83	378,95
2003Aug	989,53	9415,82	1810,45	4179,70	2524,12	3446,79	1261,13	9884,59	359,77
2003Jul	992,24	9233,80	1735,02	4079,10	2459,85	3336,31	1150,01	9669,84	351,02
2003Jun	988,00	8985,44	1622,80	4119,70	2443,33	3179,54	1068,59	8895,71	356,35
2003May	935,84	8850,26	1595,91	3988,41	2303,04	2922,94	963,20	8122,13	355,68
2003Apr	890,19	8480,09	1464,31	3862,95	2278,28	2790,54	965,08	7895,68	328,18
2003Mar	846,62	7992,13	1341,17	3637,90	2086,46	2491,05	1015,28	8170,95	340,55
2003Feb	837,48	7891,08	1337,52	3643,91	2170,88	2611,22	1055,84	8535,80	358,97
2003Jan	895,40	8053,81	1320,91	3786,82	2377,38	2921,70	1073,48	8567,45	356,86
2002Dec	898,87	8341,63	1335,51	3949,00	2477,03	3117,74	1074,05	8674,76	331,92
2002Nov	911,31	8896,09	1478,78	4102,08	2559,00	3226,88	992,26	8699,63	319,07
2002Oct	854,63	8397,03	1329,75	3968,92	2384,73	2967,31	955,12	8781,07	316,56
2002Sep	870,11	7591,93	1172,06	3956,70	2450,16	3230,06	987,12	9354,72	319,14
2002Aug	912,55	8663,50	1314,85	4255,80	2697,45	3687,17	977,60	9751,20	310,25
2002Jul	905,78	8736,59	1328,26	4238,08	2810,65	4002,09	1034,70	10352,27	313,29
2002Jun	1014,05	9243,26	1463,21	4732,34	3143,11	4427,92	1065,90	10965,88	321,18
2002May	1079,46	9925,25	1615,73	5167,79	3503,45	4939,63	1079,80	11695,83	314,49
2002Apr	1112,03	9946,22	1688,23	5206,33	3658,62	5199,66	1120,74	11391,62	302,68
2002Mar	1153,49	10403,94	1845,35	5252,41	3744,25	5323,40	1159,33	11452,51	294,06
2002Feb	1100,84	10106,13	1731,49	5126,80	3537,60	4894,54	1138,17	9966,87	295,50
2002Jan	1140,00	9920,00	1934,03	5190,84	3690,13	5151,29	1087,20	10338,46	281,51

TIME	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	Gold price in US$/oz.
2001Dec	1144,92	10021,50	1950,40	5181,27	3711,09	5074,55	1075,87	10490,76	275,85
2001Nov	1130,02	9851,56	1930,58	5242,32	3674,63	4949,81	1031,62	10519,65	276,16
2001Oct	1076,59	9075,14	1690,20	5060,03	3440,91	4577,54	953,92	10428,77	283,06
2001Sep	1058,67	8847,56	1498,80	4894,62	3277,00	4379,86	949,43	9974,74	283,42
2001Aug	1178,50	9949,75	1805,43	5444,36	3884,63	5438,16	1069,01	11576,21	272,39
2001Jul	1205,81	10522,81	2027,13	5462,43	4037,83	5840,61	1077,98	12140,08	267,53
2001Jun	1238,71	10502,40	2161,24	5753,06	4289,68	6025,64	1107,15	12974,89	270,23
2001May	1270,70	10911,94	2110,49	5877,35	4481,87	6155,76	1159,44	14014,34	272,35
2001Apr	1189,54	10734,97	2116,24	5767,89	4307,64	5963,02	1116,41	13436,72	260,48
2001Mar	1185,85	9878,78	1840,26	5713,40	4199,16	5917,01	1214,47	12684,94	263,03
2001Feb	1305,54	10495,28	2151,83	6118,41	4525,87	6462,67	1371,91	13274,10	261,87
2001Jan	1334,21	10887,36	2772,73	6193,51	4729,65	6560,65	1316,96	13735,77	265,49

Data sources:
S&P 500
Nikkei 225
Europe 50
Dow Jones Industrials
Nasdaq
Dax
Nifty
Gold price

TABLE 7 Correlation coefficients between the stock indexes and the price of gold

TIME	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225
PERIOD								
2001Jan-2014Aug	0,47	0,59	0,68	0,49	-0,40	0,66	0,88	-0,17
PERIOD 1.								
2001Jan-2008Aug	0,71	0,78	0,69	0,61	0,41	0,69	0,95	0,65
PERIOD 2.								
2008Sep-2010Oct	0,67	0,66	0,81	0,79	0,44	0,78	0,90	0,28
PERIOD 3.								
2010Nov-2014Aug	-0,72	-0,69	-0,71	-0,80	-0,84	-0,78	-0,66	-0,84

Once again there is a huge difference if we observe the whole analytical period or just the current period (Period No. 3). It's more or less clear, that nowadays the lower values of economic indicators (stock indexes) lead to a higher price of gold. If Dow Jones Ind. falls for 1%, this could lead to an 0,69% increase in the price of gold. Observing all correlation coefficients in our post crisis period (Period No. 3), there is only one task left. Can we prove that higher interest rates lead to lower values of stock indexes? It seems logical and at this point the traders will usually say: "Yes, because if the money becomes more expensive, we don't buy shares anymore - we sell them!" But where is the truth? It comes on the next page. So, let us take a look at the final table 8, where we have correlation coefficients between interest rates and stock indexes for the most important current period No. 3.

TABLE 8 Correlation coefficients between interest rates and stock indexes from November 2010 until August 2014

3 months real libor US$	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	Average
PERIOD 3	0,48	0,48	0,46	0,51	0,29	0,53	0,32	0,48	**0,44**
FED - effektive	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	
PERIOD 3	-0,39	-0,42	-0,43	-0,32	-0,24	-0,28	-0,17	-0,41	**-0,33**
3 months libor £	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	
PERIOD 3	-0,74	-0,72	-0,68	-0,79	-0,64	-0,78	-0,67	-0,75	**-0,72**
3 months libor €	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	
PERIOD 3	-0,76	-0,76	-0,71	-0,71	-0,39	-0,74	-0,57	-0,65	**-0,66**
10 years USA	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	
PERIOD 3	0,13	0,08	0,15	0,32	0,68	0,27	0,25	0,22	**0,26**
10 years GB	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	
PERIOD 3	0,02	-0,04	0,04	0,20	0,60	0,15	0,20	0,22	**0,17**
10 years Germany	S&P500	DOW JONES IND.	NASDAQ	FTSE 100	EUROSTOKS 50	DAX	NIFTY	NIKKEI 225	
PERIOD 3	-0,53	-0,56	-0,51	-0,31	0,12	-0,39	-0,34	-0,34	**-0,36**

As we have already explained, the role of 3 months real libor on US$ is in question and hard to compare with other observed short term interest rates. Taking this fact into consideration, we can say that an interest rate hike at short term interest rates will surely lead to a lower values of stock indexes and consequently to higher price of gold. It would be probably enough and more logical to compare the interest rates and stock indexes from the same market. So, in the last row of the table No.8 we can see the fall of the german DAX for 0,39% in the case of german 10 year interest rates increase for 1%.

Long term view shows a big difference between Germany on one side and the US and GB on the other side. The Dow and FTSE could rise also in case of higher long term interest rates in US and GB. There can't be any generally conclusion and even if it could be, there is still no prove for one or another thesis. The influence of interest rates on stock indexes seems to be more convincing and more logical, but it might also occur that the central banks cut the rates in the crisis and increase them in circumstances of so called over warmed economy. This means that there is not absolutely clear, what exactly is in this case dependent and what should be an independent variable. The easiest way to resolve such a dilemma is the method of observation. What usually comes first is surely an independent variable.

FINAL CONCLUSION

To be honest, I simply believe that shares have gained too much in the recent years and we will be witnesses of some kind of correction pretty soon, especially in the case of higher interest rates. Like the American gold expert Frank Holmes likes to say: There are only two kinds of gold trading: "The fear-trade and the love-trade!" So, I'm asking myself, what are we doing with statistical methods in the kingdom of gold? How can we even measure the fear and love? Furthermore, I'm asking myself, what are the gold bears really waiting for? An interest rates hike? Which one? Maybe the one from FED, with the hope that the rest of the world will not follow?!

ACKNOWLEDGEMENTS

The path to the truth was long and in our case paved with unbiased research principles. As this study did not receive any kind of help or any kind of sponsorship, we can see it as objective.

CONFLICT OF INTEREST

Disclosure is simple. Author holds 34% of all his assets in gold. The average price of all shopping activities is 31€/ gram and author is continuing to buy gold stepwise whenever the price level is under 31€/gram (currently around 1200 US$/oz. and the next opportunity to buy at 1150 US$/oz).

REFERENCES

Data sources are linked under each table. The statement from Frank Holmes was found in the German review Rohstoff Giganten dated April 10 2014.

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