


**BANCO CENTRAL
DE LA REPÚBLICA ARGENTINA**

Central Banks, Emerging Markets and Gold



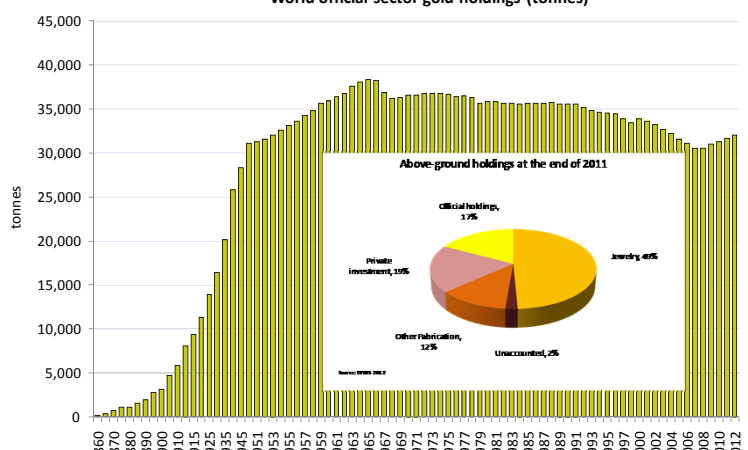
Juan I. Basco
 Deputy General Manager
 Operations Department, B.C.R.A.

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Central banks and official institutions have been major gold holders for more than 100 years

World official sector gold holdings (tonnes)

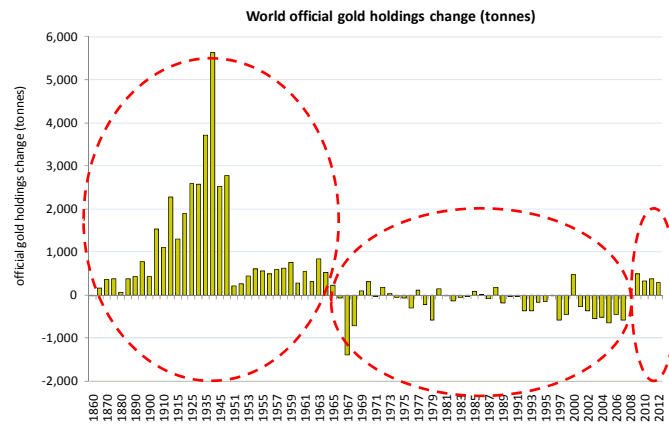


Source: World Gold Council (WGC)



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Central banks' attitude towards gold seems to have changed over time



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However, major sellers were generally advanced economies with very large positions

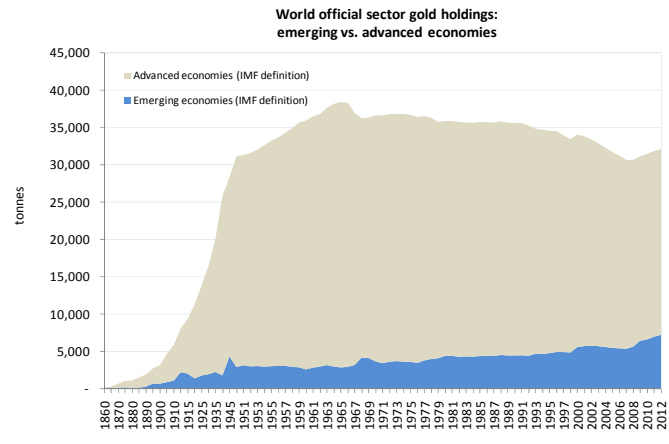
Advanced Economies (among top 100 countries) | Emerging Economies (among top 50 countries) | Source: WGC

Country	Tonnes	% of Reserves	Aggregate	% of Reserves	Country	Tonnes	% of Reserves	Aggregate	% of Reserves
United States	8.133,5	76%	8.133,5	76%	China	1.054,1	2%	1.054,1	2%
Germany	3.391,3	73%	11.524,8	75%	Russia	969,9	10%	2.024,0	3%
Italy	2.451,8	72%	13.976,6	74%	India	557,7	10%	2.581,7	3%
France	2.435,4	69%	16.412,0	73%	Taiwan	423,6	6%	3.005,3	4%
Netherlands	612,5	59%	17.024,5	73%	Turkey	370,0	16%	3.375,3	4%
ECB	502,1	33%	17.526,6	70%	Saudi Arabia	322,9	3%	3.698,2	4%
Portugal	382,5	90%	17.909,1	71%	Lebanon	286,8	29%	3.985,0	4%
Spain	281,6	29%	18.190,7	69%	Philippines	192,7	12%	4.177,7	4%
Austria	280,0	55%	18.470,7	69%	Algeria	173,6	5%	4.351,3	4%
Belgium	227,5	39%	18.698,2	68%	Thailand	152,4	5%	4.503,7	4%
Greece	111,9	82%	18.810,1	68%	Singapore	127,4	3%	4.631,1	4%
Romania	103,7	12%	18.913,8	67%	South Africa	125,1	13%	4.756,2	4%
Finland	49,1	24%	18.962,9	66%	Mexico	124,4	4%	4.880,6	4%
Bulgaria	39,9	11%	19.002,8	66%	Kazakhstan	116,8	23%	4.997,4	4%
Slovakia	31,8	66%	19.034,6	66%	Libya	116,6	5%	5.114,0	4%
Cyprus	13,9	62%	19.048,5	66%	Korea	104,4	2%	5.218,4	4%
Slovenia	3,2	18%	19.051,7	66%	Kuwait	79,0	12%	5.297,4	4%
Luxembourg	2,2	12%	19.053,9	66%	Egypt	75,6	26%	5.373,0	4%
Eurozone	10.920,4	60%	19.053,90	66%	Indonesia	73,1	4%	5.446,1	4%
United Kingdom	310,3	16%	19.364,20	62%	Brazil	67,2	1%	5.513,3	4%
Sweden	125,7	11%	19.489,90	60%	Pakistan	64,4	26%	5.577,7	4%
Denmark	66,5	4%	19.556,40	58%	Argentina	61,7	8%	5.639,4	4%
Australia	79,9	9%	19.636,30	56%	Belarus	51,7	31%	5.691,1	4%
Japan	765,2	3%	20.401,50	35%	Bolivia	42,3	16%	5.733,4	4%
					Malaysia	36,4	1%	5.769,8	4%



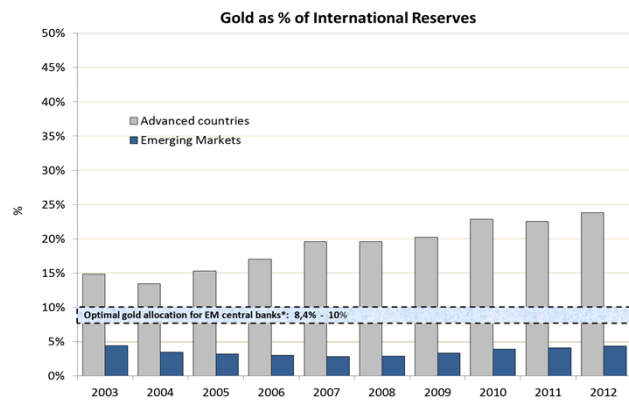
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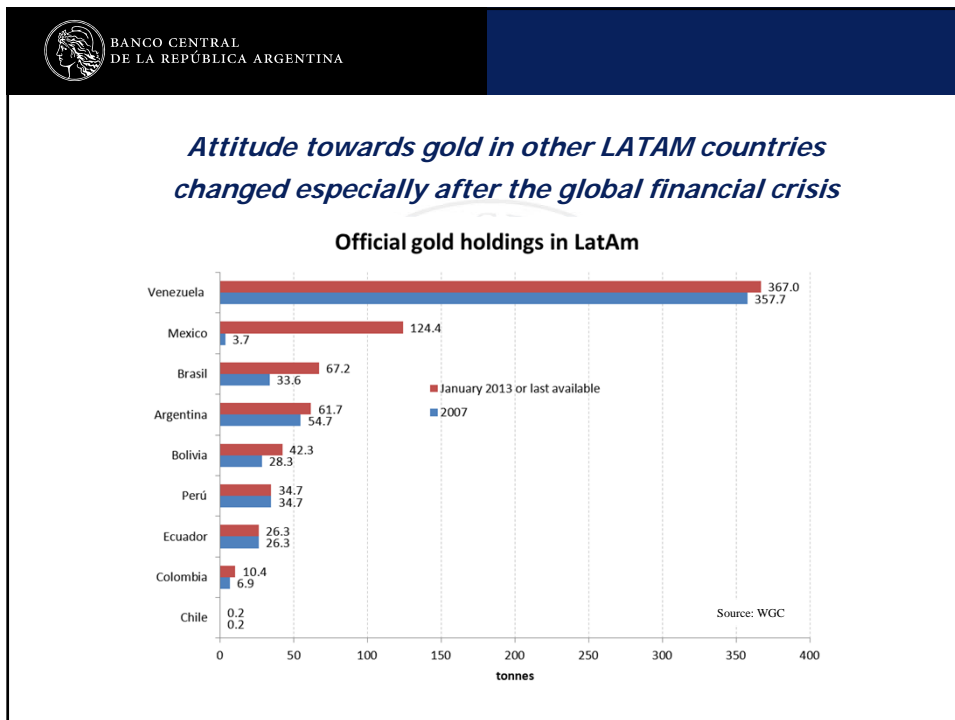
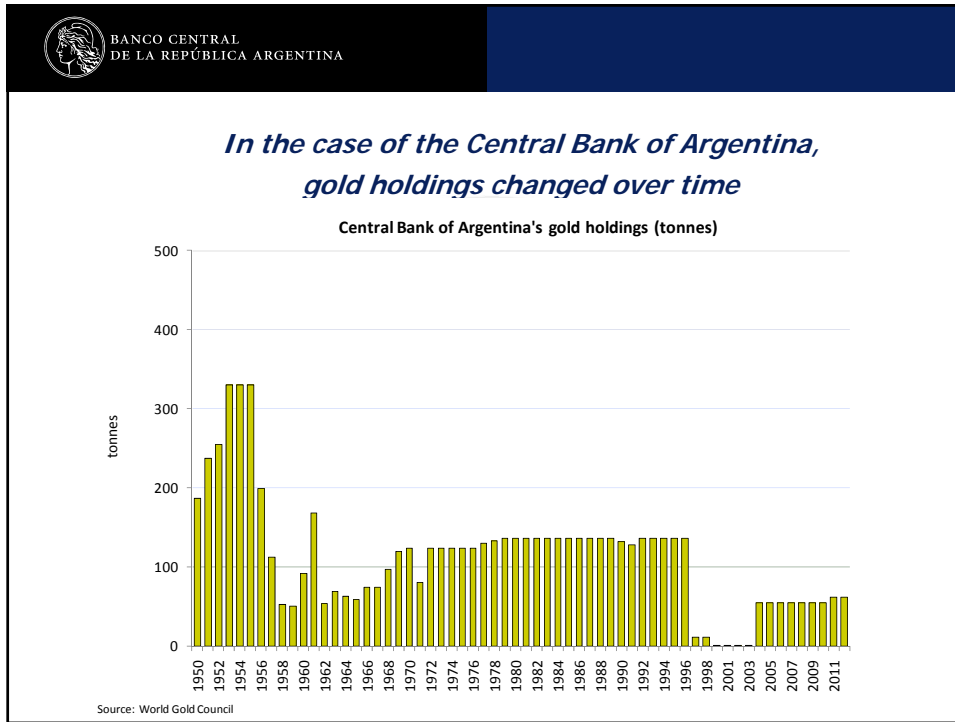
*Emerging countries have been minor holders of gold
and they have been increasing their holdings over time*



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*Emerging markets behavior seems to be rational
according to some optimization models*

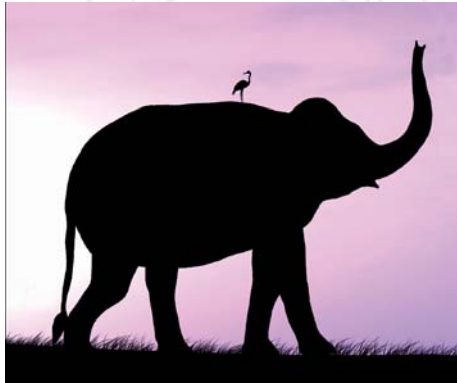






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Central banks are not like the usual investors: they deal with national savings. They have long term goals, and need to be very cautious when moving.

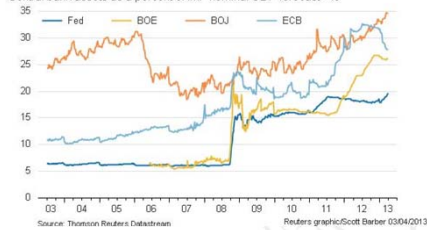


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Gold's lack of credit risk, long term store of value and safe heaven behavior are key features for central banks

Balance sheets as percent of GDP

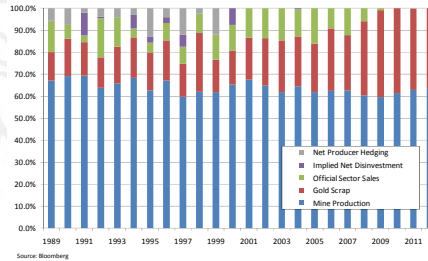
Central bank assets as a percent of IMF nominal GDP forecast - %



Source: Thomson Reuters Datastream

Readers graphic Scott Barber 03/04/2013

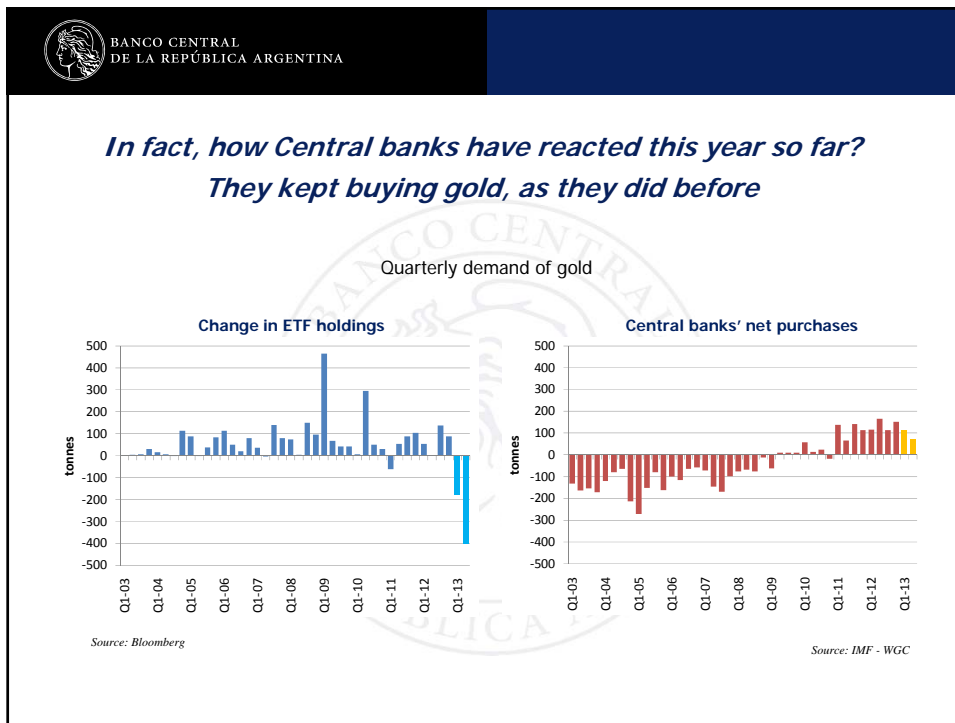
Global gold supply by source



Source: Bloomberg

Paper currencies' supply is unlimited

Gold supply is not!





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...especially, if we are uncomfortable having tail-risk scenarios

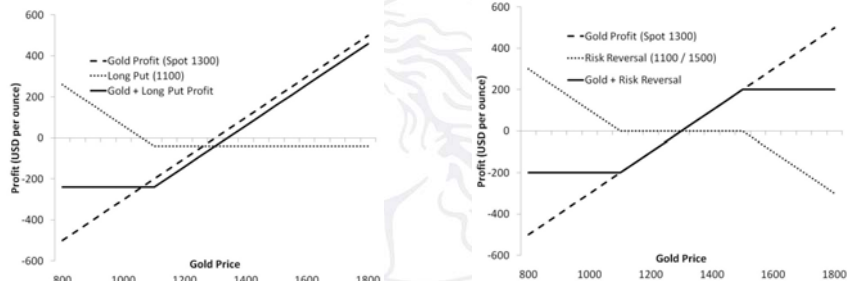


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Some hedging strategies can be used to manage it

Long Put: downside risk is limited, but you have a sink cost

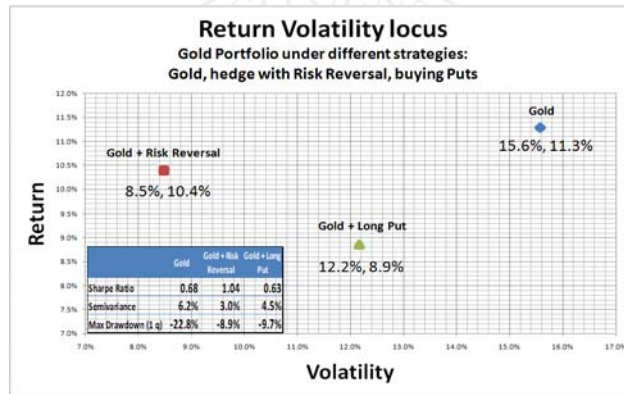
Risk Reversal (long put+short call): tail risk is limited (both negative and positive) – No initial cost





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Risk reversals can improve your sharpe ratios, but you also need to be aware of: hedging costs and SIZE!



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