



US\$500 Gold and Gold Producer

By CK Wong 2005.11.25

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Introduction

Gold is marching to the US\$500. The progression could be continued. What would be the impact to the gold producers; large, medium and small? There will be no mention of names. So no recommendation of stock.

Cost of Producing Gold

Gold production has multiple costs. It starts with the property which follows by survey. Property is a fixed cost. Once acquired, the other levy is low. Survey is variable cost. It could change as the situation altered. In a unfavorable situation, a small gold producer may used up the capital during the surveying stage before it could hit gold not to mention mining.

When the golden moment comes, the producer enters the production phase. The cost of production varies from US\$50 to US\$400. The cost could be identified in to multiple areas: equipments, transportation of the ore, labor, refinery, water treatment, energy and other consumable materials. While the inflation has been not incredible high, the cost still increases especially in the energy and materials. The cost of energy has a 10% ration in the past that is when oil is about US\$20-US\$30. The oil price has moved up to \$60 range and tentatively on the way to US\$70. The cost of the production will be impact by energy from two fronts. The first is the direct increase in the fuel or electricity consumed. The second is the indirect impact from all other costs. The following is a model that illustrates the impact of the energy.

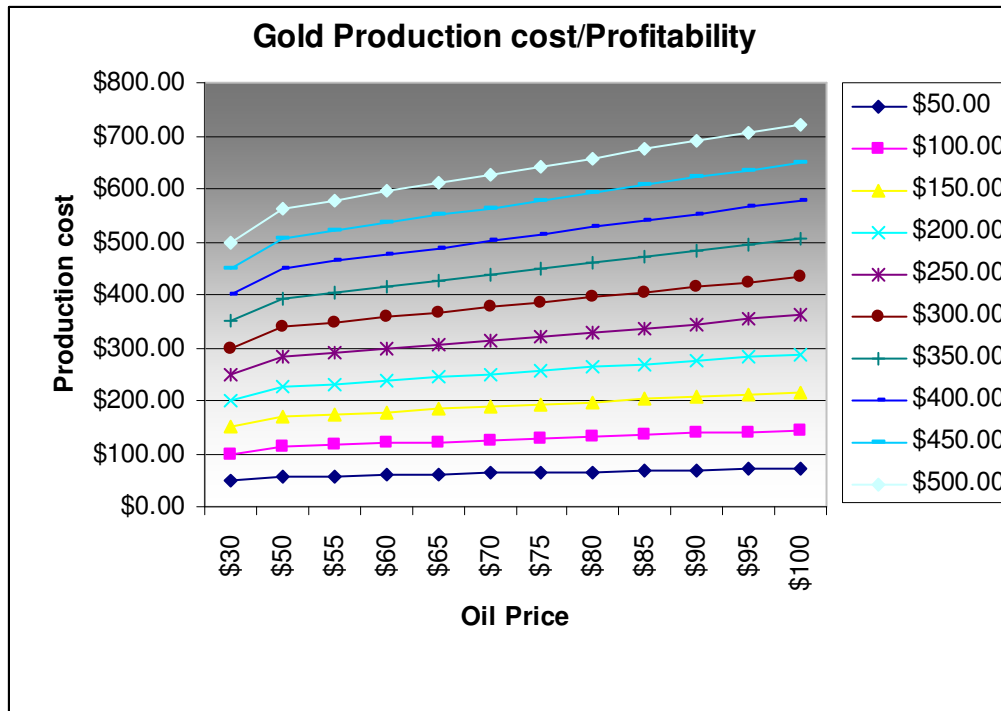
Cost Component	Relative cost to U\$30 oil			
	U\$30	U\$50	U\$75	U\$100
Energy	10%	17%	25%	33%
Indirect Energy impact	10%	10%	10%	10%
non Energy	90%	96%	104%	111%
Total impact		113%	129%	144%

It is necessary to do some explanation on this model. The base of the cost is relative to the U\$30 oil which is just about 2 years ago. Using the rule of thumb, the energy is assumed to be 10% of the overall cost. The non energy cost component is the rest of the total cost: 90%. To including the impact of the energy cost in the non Energy cost (like machinery, transportation, labor, real-estate, water processing) I use a 10% component factor for these costs When energy cost increase, these costs should follow. They could not immune from the rising energy impact.

After establishing the base, I use the base to estimate the change of the cost impacted by the energy. Under the U\$50 oil, the cost of energy will be additional 7% more for the cost of energy at U\$30 oil. For the non-Energy cost component, I bump up 10% of the energy component of non-Energy cost (i.e. 9%) by 67% (the rate of increase from \$30 to \$50), the non-Energy cost would become 96% of the cost when oil is U\$30.

From the table, we can see the cost of the production will increase at least by 30% at the current U\$57 oil.

Base on this model, I have created the following chart on the profitability.



Each line represents the production cost impacted by the oil price. Currently, oil is about U\$60. From this chart we could estimate that many producers that have production cost higher than U\$300 may have trouble making any money before gold hit U\$500. It is because the production cost does not include the sales and administration cost.

Surge of profit

For companies who are underwater at the U\$400 gold price, their book may turn black as gold marching to U\$500. This creates a very interesting situation: some company will have a sudden surge of profit. The profit increases in multiple folds rather than a few percent. This will become another gold rush. The big question will be: will it have any impact on the stock price. Under normal circumstance, the answer should be yes. For gold stock we should assess the situation more carefully. While the gold price may increase, so does the oil price. The catch up game is on. Like any investment we may want to pay more attention to the management and strategy of the company. The bottom line is import but not the only criteria.