



What a Roman centurion's pay says about gold

[Michael Allan McCrae](#) | July 14, 2012

Researchers investigated if gold really has "equity-like" returns by comparing salaries of modern US military personnel and Roman soldiers over 2,000 years ago. While bullion's purchasing power has stayed surprisingly consistent, gold is lousy at compounding.

[Golden Dilemma](#), written by Claude B. Erb and Duke University's Campbell R. Harvey, looks at how well several goldbug arguments hold up. (The people at Business Insider have put [all the study's arguments into a slideshow](#).)

Regarding the compounding, the researchers look at pay for a Roman legionary, in the era of Emperor Augustus (27 B.C.-14 A.D.), who was paid a salary equivalent to 2.31 ounces of gold. A centurion was paid a salary equivalent to 38.58 ounces of gold.

Compared to modern US Army salaries, a private is making 20% more than the legionary, and a captain is making 30% less than the centurion.

There are two insights here. First, incomes denominated in gold might be a very long-term hedge – in that the real purchasing power of some wage rates are roughly preserved. Second, it helps us to begin to understand what the expected return on gold is not. Even though 2,000 years is only a fraction of the time that gold has been mined, it provides a lot of compounding periods. A claim that gold could have “equity-like” returns in the future needs to be reconciled with the past. Starting in the year 12 A.D. one dollar compounding at just 1% a year, turns into \$439 million over 2,000 years. If the rate of return is increased to 1.62%, the ending value is \$100 trillion – more than the today’s capitalization of world stock and bond markets.

[Download the study>>](#)

Image by [marcovarro](#) / [Shutterstock.com](#)



[Michael Allan McCrae](#)

Follow [@michaelmccrae](#)

Email: mike@mccrae.ca

[Michael Allan McCrae on](#)

Michael McCrae is executive editor of MINING.com. Before coming to InfoMine, Michael worked as

a reporter and editor for newspapers throughout British Columbia. He has written for the Vancouver Sun, Prince Rupert Daily News and others. He also worked in pre-sales for various software firms and banks.

[blog comments powered by Disqus](#)