

# ARMSTRONG ECONOMICS FORECASTING THE WORLD

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*Financial-Capital-Equity-Commodity & Political Trends*

*History is a Catalogue of Solutions*

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History is a Catalogue of Solutions



Roman-Gallic Emperor Postumus (260-269 AD)  
Gold Aureus

## WHAT DESTROYED ROME WAS ITS UNFUNDED GOVERNMENT EMPLOYEE PENSIONS

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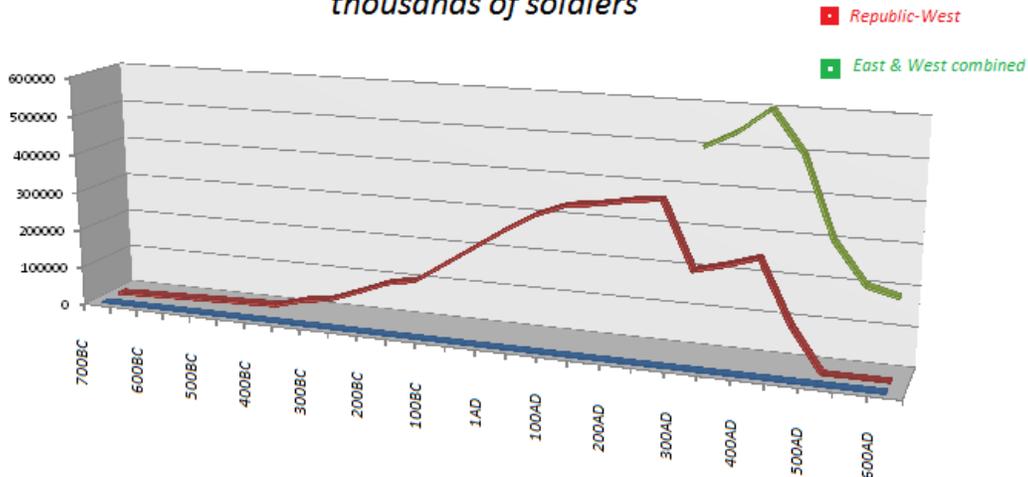
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**ISTORY IS A CATALOGUE OF SOLUTIONS. HOWEVER, IT IS ALSO A CATALOGUE OF THINGS NOT TO DO.** Far too many people just ignore the past and assume there is nothing worthwhile even exploring. This is why history repeats, largely because of the arrogance of mankind in assuming he is better than all those who preceded him. I have been often asked why I came to see the world through an eternal battle between **Private** and **Public** interests (**People v Government**). Effectively, aside from the fact that we invented the combustion engine, discovered radio waves that also enabled the development of computers, there is little else that is really a modern invention. Right down to the form of government we have, which is a **Republic** based upon Rome rather than a **Democracy** based upon Athens, this is not a modern invention. A **Republic** is where we elect representatives to go run government. In a **Democracy**, every citizen has the right to propose laws and sits in judgment over the affairs of the state. Rome had its Senate as does Washington.

# Roman Military Expressed in Manpower

thousands of soldiers



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Sources: Livy, Appian, Dionysius, Polybius, Lydus, Agathius, Gibbon, MacMullen, Goldsworthy, Frank, Santosuosso, Duncan-Jones, Luttwack, Mommsen, Junkelmann, Varady, Ward Perkins, and Nischer

\*Note: John Lydus placed Diocletian's(284-305AD) troop strength at 389,704 for the army and 45,562 for the navy.

You probably even think that to get a government pension, you had to work for 20 years is a another modern socialistic benefit based upon Marx. Actually, that would be wrong. It was a Roman tradition that was used to entice people to sign up for the military just as today people work for government to eliminate any real risk or responsibility. For whatever reason, that ancient tradition of 20 years of service remained an expected benefit if you were to work for government that has been handed down through the centuries. However, the socialists have simply ignored the lessons of the past and adopted the **VERY SAME** pension programs that truly contributed to the **Decline and Fall of Rome**? Economically, it was precisely what we see today in our own society. Today, what has emerged as the government employees v the people such as in Greece, the same trend has infecting everywhere. Greece is

merely a test run for what we will soon face in virtually all governments – **UNFUNDED ENTITLEMENTS**.

The above chart illustrates the growth in the Roman Military from about 700BC through the fall of Western Europe in 476AD and showing the decline that became dominant in the East under what is known as the Byzantine Empire. This created the same problem we face today - **UNFUNDED PENSIONS AND ENTITLEMENTS**. It seems to be inevitable that government promises the moon, but never delivers. It may shock most readers to even assume that such data exists. In reality, there is far more data available on the rise and fall of Rome than there is during many medieval governments. The Romans were great secretaries and much of the early writings of many contemporary historians have survived.

The coinage that has survived is truly amazing. Because of the political uncertainty and wars, people buried their cash for security. This has resulted in astonishing hoards that are found even today. This provides a snapshot of the money supply throughout the course of the years and gives us solid records as to the number of dies involved in striking coins since each die is hand carved. We know that about 20,000 coins can be struck from each die before it breaks or becomes too worn. This is known from studies to recreate the striking of coins in modern times to establish this understanding of money supply.



For example, Britain, there was the largest hoard of Roman coins ever discovered in July 2010. This pot contained 52,000 coins. This was truly an amazing find. In December 2008, the largest find of Byzantine gold coins, 264 in total, was discovered in Jerusalem from the 7<sup>th</sup> Century. Hoards clearly increase during periods of political instability reflecting the same human reaction we witness today during economic declines. People begin to save more and curtail their spending whenever their future becomes uncertain. So it matters not what period we are looking at, human reaction is always the same. These hoards provide important data over the course of centuries and have filled in a tremendous amount of data from which to build real viable economic models.



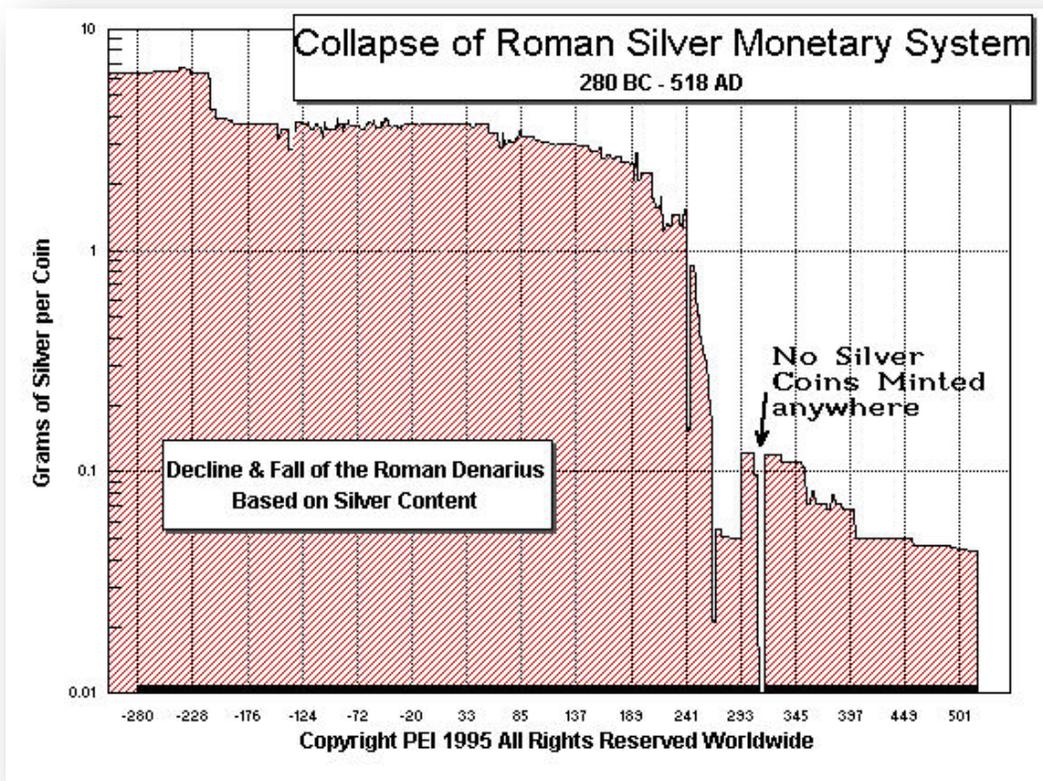
Historians have also recorded wages so we have far more statistics than most people are familiar with these days. This allows us to look at not just wages, but the **UNFUNDED PENSIONS** that were promised to the military.

Table 1.1

Estimated Military Expenditures, A.D. 6-235  
(in millions of Denarii)

Year	Payroll	Retirement Benefits	Equipment and Supplies	Total
6	68	29	27	124
9	60	28	24	112
39-41	66	29	26	121
68-69	69	30	28	127
70	72	31	29	132
83-86	97	44	39	180
86-92	95	42	38	175
92-100	93	41	41	171
101-32	98	44	39	181
132-61	96	42	38	176
161-66	100	41	40	181
166-70	104	44	42	190
195	155	70	62	287
215	232	104	93	429
230	236	107	95	438

Source: The calculation of retirement payments (computed at two-thirds of base pay over twenty years) are based on M. Corbier, "Laerarium militare," in *Armées et fiscalité*, pp. 220-31.; Kenneth W. Harl "Coinage in the Roman Economy 300BC-700AD (1996).



**Cassius Dio** (c. AD 155 or 163/164<sup>1</sup> to after 229), wrote about 80 books covering the history of Rome. Historians have generally agreed with him that the peak of the Roman Empire took place during the reign of Marcus Aurelius (161-180AD). Cassius wrote: ***“our history now descends from a kingdom of gold to one of iron and rust, as did the affairs of the Romans of that day.”*** (Dio 52, 30)

While I have shown this chart many times, what I have not explained is the single largest reason behind the debasement. True it was Augustus (27BC-14AD) who first established a personal guard known as the Praetorian Guard, which he paid at twice the wages of the regular army. They were to be in a constant state of readiness to protect his person and to ensure that any rebellion would be crushed. However, the people would not tolerate kings or a police

state. Thus, the number of Praetorian Guard within the city walls was limited to just three cohorts, which during the early Republic was about 480 men, and during the First Century AD had become 800 men. With the murder of Commodus (180-192AD) and the auctioning off of the office of Emperor by the Praetorian Guard who saw themselves as above even the army, the Decline and Fall was in full motion. The Civil War that was unleashed necessitated the victor, Septimius Severus (193-211AD) to sharply increase the pay to the soldiers and to relax their discipline to secure their favor.

A vicious downward spiral unfolded. The greater the threat of political instability, the higher the military pay rose. This expanded the cost of government and facilitated a spiral of inflation forcing the government to debase the coinage to increase the money supply. The

Decline & Fall of Rome was driven by the **UNFUNDED** guarantee of **PENSIONS** and like social security today, there was nothing actually put aside. It was always assumed that the state would be able to fund its promises.

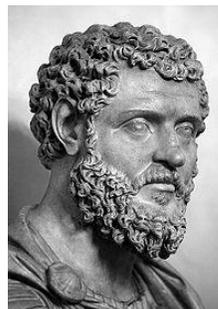
During the Republican days, 25 denarii paid 52 percent of the cost of his family's annual needs for grain. By the 3<sup>rd</sup> century AD, it would take 6,000 denarii to create the same standard of living. Inflation was the **RESULT**, not the **SOURCE**, which was the fiscal mismanagement of Rome.

Under Julius Caesar and Augustus, they established new pay standards whereas donatives (bonuses) to the military were paid in gold aurei. Such donatives paid to the troops were actually the spoils of war. This gradually was transformed into expected benefits even when there were no spoils. Tiberius and Caligula transformed donatives from rewards paid out of booty into regular bonuses. When a new emperor came to power, they bought the loyalty of the troops paying a donative upon their accession to the throne. Each paid donatives of 50 million denarii (by matching 25 million denarii in testamentary gifts of his predecessor). Now, the Praetorians regularly received 10 gold aurei. The other troops in the Urban Cohorts were paid half this amount. The regular army legionaries received 3 gold aurei each. Claudius, in 41AD, paid the Praetorian Guard 150 gold aurei per man after the assassination of Caligula. The Praetorians thus received about 35 million denarii and the rest of the army was paid nearly 50 million denarii. This was a vast amount of money to secure the political stability after the death of Caligula.

These levels of donatives were becoming expected. In 54AD, Nero offered similar

donatives on his accession to the throne and upon his assassination in the midst of now civil war, the contender Vitellius promised to his enlarged Praetorian Guard donatives totaling 88.8 million denarii. Under the Flavian emperors, Vespasian, Titus, and Domitian, they sought to reverse the trend reducing the size of the Praetorian garrison of Rome and imposed strict limits on imperial donatives in an attempt to restore imperial fiscal solvency.

With the reign of Trajan (98-117AD), the conquest model was reestablished. He launched the invasion of Dacia into the Balkans. This greatly increased imperial revenues once again and there was also then the exploitation of new mines in those regions. This increased the money supply but it was also like a pauper winning the lottery. The ceremonial gift-giving came back in full force and once again became institutionalized. Between Nerva (96-98AD) and Commodus (180-192AD), there were no less than forty-five separate donatives totaling at least 567,250,000 denarii or 22,690,000 aurei according to surviving records.



Upon the assassination of Commodus in 192AD, the Praetorian Guards had become so corrupt that they now auctioned off the throne to the highest bidder. That most unfortunate soul only reigned for a few months. He was Didius Julianus (January 30<sup>th</sup> - June 1<sup>st</sup> 193AD) who promised a donative of 25,000 sesterii to every man (or 6,250 silver denarii, 250 gold aurei). Upon his accession to the throne, he instantaneously debased the silver denarius from 87% to 81.5% fineness as the weight declined from 2.75 to 2.40 grams to pay the bills.

The Civil War that was unleashed with the death of Commodus brought Septimius Severus (193-211AD) to the throne. This new dynasty over the course of the next forty-three years (193-235AD) distributed twelve donatives amounting to at least 431,250,000 denarii or 17,250,000 aurei. Donatives to retain power to the urban plebeians reached almost 1 billion denarii or 40 million gold aurei? The amount paid to the legionaries was at the same level. The finances of Rome paid to the government employees bankrupted the state for they did not produce income but rather consumed wealth. This is the difference between private workers and those employed by government. One produces economic growth, while the other is a public servant consuming the wealth generated by others.

The inflation that was unleashed by the debasement of the currency was unprecedented historically. To put this in perspective, at the time of Julius Caesar (100-44BC) when he was rising to power, he was funded by the richest man Crassus in Rome (of Sparticus fame) whose wealth was placed at 200 million sestertii. That was a sum equal to 50 million denarii or 2 million gold aurei. By the mid-3<sup>rd</sup> century, denarii were bronze and were reduced to at best 1/50<sup>th</sup> of its value.

The debasement in Rome was widespread. Here is a table 1.2 illustrating the debasement of the provincial currency in Egypt. Here we see that the decline from 13.22 to 7.47 grams, but the fineness declined 16.54% of silver to 0.5%. This was all driven by the rising cost of government employee and the unfunded liabilities of retirement at 2/3rds their base pay.

Table 1.2

Debasement of Alexandrine Tetradrachma

Year	Emperor	Weight	Silver Content	
		Grams	Fineness	Gram
58-67	Nero	13.22	16.54	2.19
167-70	Marcus Aurelius	12.68	12.39	1.57
178-82	M. Aurelius & Commodus	11.90	7.75	0.92
191-92	Commodus	11.90	6.20	0.74
193-211	Septimius Severus	11.55	1001	1.16
212-17	Caracalla	12.62	7.00	0.88
218-22	Elagabalus	12.28	unknown	
224-27	Severus Alexander	12.75	6.84	0.87
235-38	Maximinus I	12.41	6.00	0.74
238	Gordian I	12.90	7.50	0.96
238-44	Gordian III	12.38	6.00	0.74
244-49	Philip 1	12.20	5.00	0.61
249-51	Trajan Decius	12.56	7.00	0.87
251-53	Trebonianus Gallus	10.59	unknown	
253-60	Valerian	10.52	unknown	
260-61	Macrianus & Quietus	10.49	unknown	
261-68	Gallienus	9.97	4.00	0.40
268-70	Claudius II	9.71	2.70	0.26
270-74	Aurelian	9.24	unknown	
274-75	Aurelian	7.99	unknown	
275-76	Tacitus	8.05	unknown	
276-82	Probus	7.78	unknown	
282-84	Carns & Carnus	7.77	unknown	
284-96	Diocletian	7.47	0.50	0.04

Consequently, we have a lot more in common with Rome than meets the eye. The cost of government destroyed Rome. The same problem of **UNFUNDED LIABILITIES** is precisely what is undermining our future. There could be a resolution, but it will take serious reform and there is just no appetite for that at this time.

Thus, identifying the problem is critical. This is the primary problem we face. Unless we deal with this issue, we are doomed. We can argue about the Federal Reserve, gold standard, and a host of other issues, but those are nothing in comparison to this single issue. We can cut spending and yell and scream all you want. But that will not solve the problem for you cannot cut enough. Every penny cut will only be replaced with spending on promised entitlements.