The Golden Constant

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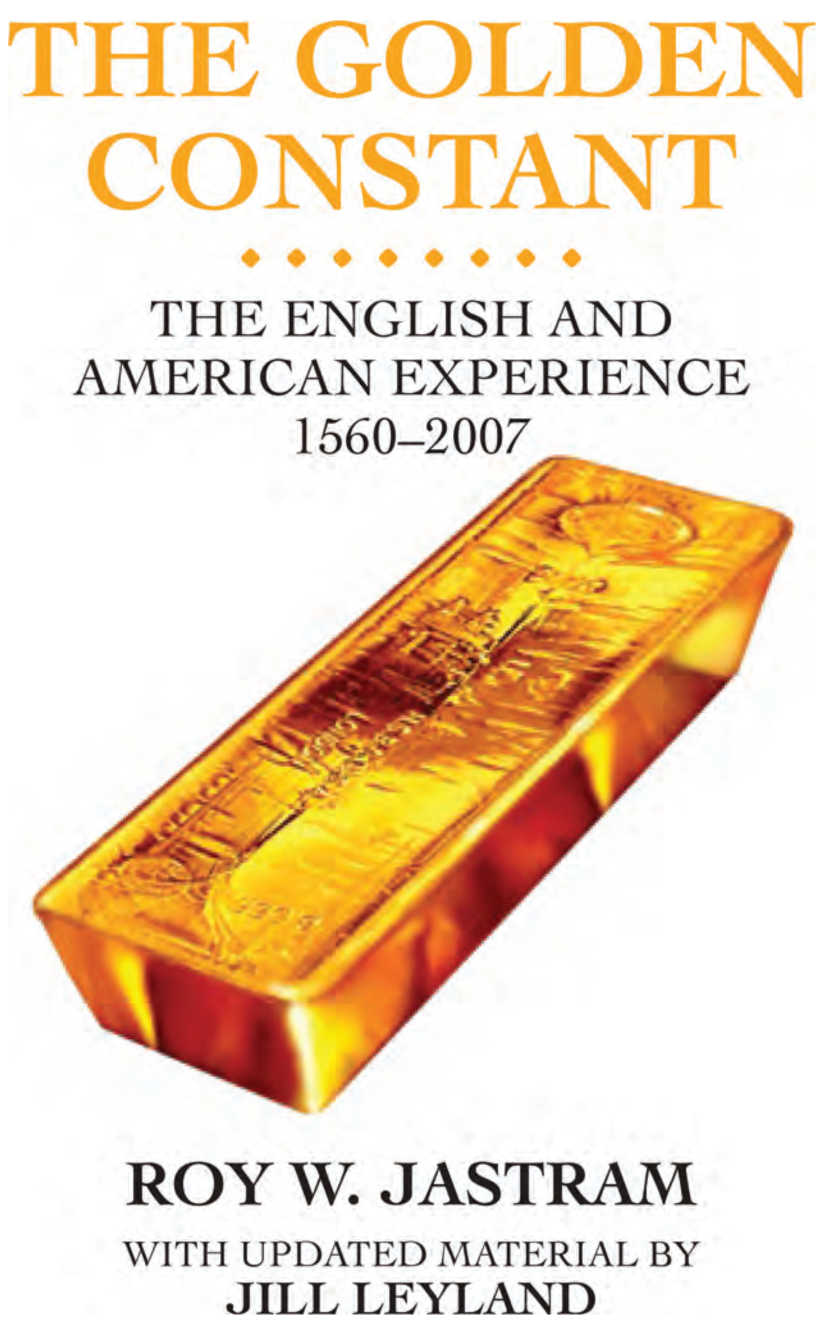


In 1977, the seminal book “The Golden Constant” by the late Roy W Jastram, then professor of Business Administration at the University of California at Berkeley, was published. This was the first attempt to compile and publish long run statistics on the price of gold and inflation that spanned several centuries and then to use these data to examine in depth how the purchasing power of gold varied over that period. Jastram established that while gold’s purchasing power fluctuated, it did so around a broadly constant level. The new edition of this book, supported by the World Gold Council (WGC) adds two additional chapters by Jill Leyland, former WGC Economic Adviser, to bring it up to date.

Jill Leyland

Jill Leyland is a consultant with over 30 years’ experience as an economist and statistician. She is former Economic Adviser to World Gold Council with whom she has been associated since 1997. In addition she has worked, as an adviser or staff member, for the Organisation for Economic Cooperation and Development (OECD), the UK Office of National Statistics, the Economist Intelligence Unit (EIU), the UK Department of Trade and Industry, the Financial Times and the Commodity Research Unit (CRU), as well as a number of smaller organisations.

Jill is the author of a number of published reports on international economic trends and issues and has supervised the publication of, or contributed to, several research studies for World Gold Council. Until 2008 she was the principal author of World Gold Council’s *Gold Demand Trends*.

Jill is currently a Vice President of the Royal Statistical Society and chairs its National Statistics Working Party. From 1992 to 2007 she was a member of the Council of the Society of Business Economists; she was appointed a Fellow of the Society in 2007.

World Gold Council

World Gold Council’s mission is to stimulate and sustain the demand for gold and to create enduring value for its stakeholders. It is funded by the world’s leading gold mining companies. For further information visit www.gold.org.

gold

Overview

Gold's reputation as an inflation hedge is well known, but is it justified? Under what circumstances does gold fulfil this role? Has the relationship been persistent during periods of both inflation and deflation and despite the massive political, economic and social changes that have occurred over the centuries? What happened when the Bretton Woods system broke down in 1971 and the gold price became free-floating?

Throughout history, an ounce of gold would always buy a reasonable, but not luxurious, outfit of clothes. This was true in the fourteenth century, when an ounce of gold was £1.25 to £1.33; it was true in the late 18th century when an ounce of gold was around £4.25 or $19; it remained true in the current decade when an ounce of gold has so far (2000 to 2008) averaged £269 or $472. In contrast, neither £1.33 nor £4.25 nor $19 would go very far in a normal shopping mall today. Nevertheless, anecdotal evidence is one thing; proper statistical analysis another.

Roy Jastram's book was the first systematic and serious attempt to explore these questions. Jastram researched and constructed indices of gold prices and wholesale prices for periods before official indices, or those constructed by economic historians were available, linking his results to existing series for later periods. Dividing the gold price index by the wholesale price index then gave him an index of the purchasing power of gold. His main research covered the period from 1560 to 1976 in England/UK and from 1800 to 1976 in the US.

Jastram chose England as the principal focus of his research, not just because of the role it played in economic and political history, but also because it has been a country with fairly consistent political boundaries, a consistent monetary system and because the English were "a nation of record keepers". The start date for the analysis is 1560, when Elizabeth 1 ordered a recoinage in order to restore the reputation of English currency after its debasement in earlier years.

Because Jastram wrote the book just a few years after the price of gold was freed in 1971, it was too early to include an assessment of how its purchasing power would behave under the new regime. The new edition contains two additional chapters (and the relevant statistics) examining the period from 1971 to 2007.

The conclusions about the behaviour of the purchasing power of gold differ somewhat between the periods before 1971, when the gold price was controlled, and after, when it was free. Nevertheless, one conclusion remains unchanged - that gold maintains its purchasing power over long periods of time even though, over shorter periods, it has fluctuated significantly.

Pre and post 1971

Gold is frequently thought of as an inflation hedge, or as a hedge against the fear of inflation, and experience since its price was freed in 1971 broadly supports this. The gold price rose rapidly – far more than the rate of inflation so that its purchasing power leaped – in the 1970s. This was a decade not just of high inflation but it also included the two oil price "shocks" and what appeared at the time to be an end to the post-war "miracle" growth of the 1950s and 1960s. Politically, events in first Vietnam, and later Iran and Afghanistan, seemed to weaken US political hegemony. In contrast, during the time of the "great moderation" in the 1980s and 1990s – a period of disinflation, generally improving economic circumstances, mostly strong stock markets and marked politically by the fall of communism – the purchasing power of gold fell. In the current decade, which saw renewed fears of inflation, growing concern over global imbalances and rising debt, and increasing political tensions, all culminating in the current economic and financial crisis, the purchasing power of gold has risen again.

Before 1971 gold was either money or closely linked to money. In times of inflation when prices rise, the value of money falls. It is not therefore surprising – although it contrasts with current experience – that the purchasing power of gold tended to fall in times of inflation (for example during the Napoleonic wars) and to rise in times of deflation.

The long-term inflation hedge

Jastram noticed that while the price of gold had remained constant for extended periods (1701 - 1792 and 1822 – 1914 in England), commodity prices had fluctuated around it. He also noted that the "exchange rate" between gold and commodities that ruled in 1930 (which he took as the base year for his indices) had already been achieved around 1650 and was achieved again on several occasions in the 18th and 19th centuries. During the 20th century, when the price of both gold and commodities started on an irreversible upward trend, they moved around each other with gold's purchasing power returning to the 1930 level on more than one occasion. Hence his main conclusion that the purchasing power of gold is maintained over long periods of time.

Extending Jastram's analysis to the current time shows that this conclusion still holds. Charts 1 and 2 show the results for the UK (using both wholesale and consumer prices) and the US (consumer prices; similar results are obtained with wholesale prices). In many ways it is more remarkable that this conclusion holds now than it was in the past. It is possible to find reasons why the purchasing power of gold would have remained constant over the centuries in former times when gold was money and when prices themselves remained broadly constant over long periods with periods of inflation alternating with periods of deflation. Indeed it can be argued that the classic Gold Standard itself acted as a "commitment" mechanism whereby the authorities acted in ways that promoted long-term price stability and hence maintained the purchasing power of money (gold). It is less easy to see why this should have occurred when the gold standard broke down in the 20th century and, in particular, why it still appears broadly to hold after 1971.

Chart 1: Purchasing power of gold in England/UK, 1560 to 2008 (Indexes, 1930=100)

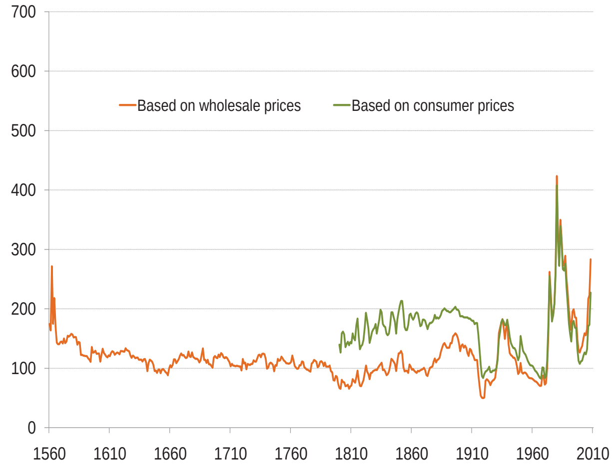
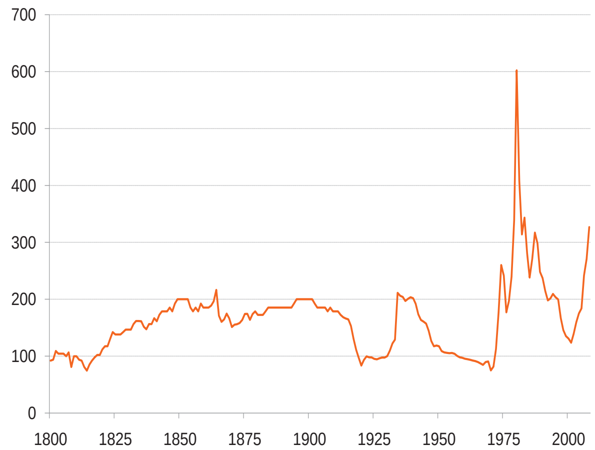


Chart 2: Purchasing power of gold in the USA, 1800-2008 (index, 1930=100)



Gold as a crisis hedge

Gold, because it is no-one's liability, and because of its history, has a reputation as a safe haven in times of political and economic stress. The new edition of the book also looks at how the purchasing power of gold performed in four additional major countries: France, Germany and Japan and Switzerland. The addition of these four countries tests its purchasing power in different ways to those possible for the UK and the US since three of them were, during the 20th century, subjected to more extreme political and economic circumstances, including invasion and occupation (France), defeat in a major war followed by occupation and the consequent breakdown and renewal of society (Germany and Japan), and a major episode of hyperinflation (Germany). In contrast, Switzerland was a haven from the turmoil of the 20th century.

Again the main conclusion holds - that gold maintains its purchasing power over long periods of time. Charts 3 and 4 show this for France and Germany.

Chart 3 France: Purchasing power of gold, 1840 to 2008 (index, 1930=100, based on consumer prices)

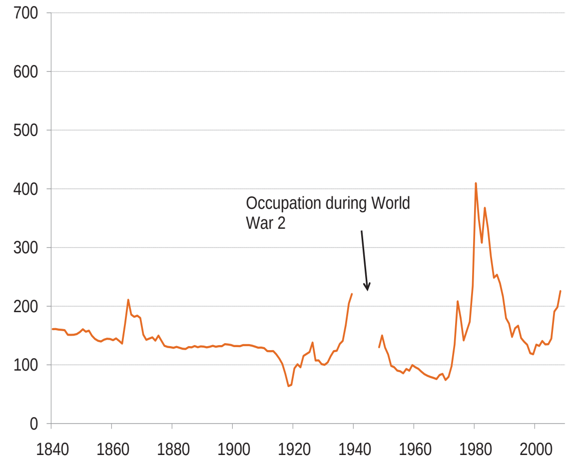
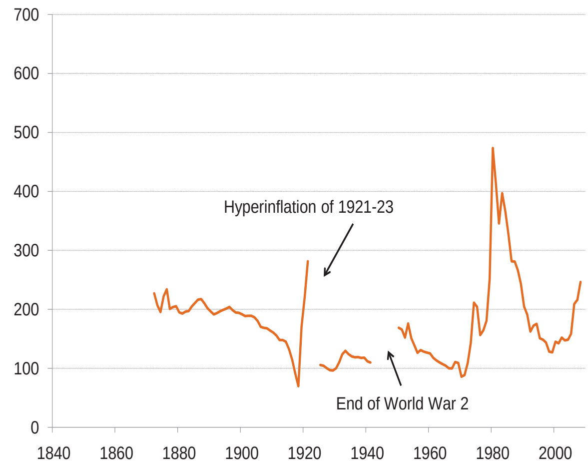


Chart 4 Germany: Purchasing power of gold, 1872 to 2008 (index, 1930=100, based on consumer prices)



In theory, since exchange rates are supposed eventually to adapt to compensate for different inflation rates in different countries, it is not surprising that if the result holds true for the UK and the US it should also hold broadly true for the other countries. Nevertheless, it is particularly striking that it did despite the cataclysmic events of the last century. A German family who held a certain quantity of gold in the closing years of the 19th century would find that that gold would still buy a broadly similar quantity of goods and services today despite hyperinflation in the 1920s and the cataclysm of World War 2 and its aftermath. In contrast a quantity of German currency held at the end of the 19th century would today be valueless.

Gold's enduring ability to hold its real value over time and throughout all sorts of circumstances is the main conclusion of the book. It proved itself a safe haven through some of the darkest times of the 20th century. Its ability to hold its value, or even to appreciate in times of stress, was not just true of the extreme crises - invasion, occupation, extreme hyperinflation – that some countries experienced during that century, but also during "lesser" crises such as the depression of the 1930s and the inflationary and other problems of the 1970s. And it has also proved to be a safe haven through the recent financial turmoil.

The constancy of gold

Why, throughout the turbulence of the 20th century, during times of immense economic and political change, and when the gold market itself changed substantially, did the purchasing power of gold, while fluctuating considerably, still appear to move around a broadly constant long-term level?

Leyland has some partial theories. First, the broad supply and demand fundamentals of gold help this stability. Gold is a scarce metal and the annual increase in supply is a small fraction of above-ground stocks. Most gold is held in a form that makes it easy to return to the market if economic circumstances dictate, thus helping to stabilise price fluctuations. The main forms of demand for gold emanate from the human need for security and the desire to enjoy and possess beauty – human needs that do not change over time.

In addition, economic activity has always moved in cycles. During the good times, investors often overlook the need for a safe haven asset, or one that has good diversification properties with mainstream investments such as gold; during bad times they rediscover it. Human nature seems to be a factor in this alternation, which contributes to the pattern of short-term fluctuations and long-term stability.

The Golden Constant

Jastram ended his book with some reflections. He pointed out that it was not always easy to be dispassionate about the metal for "gold is inexorably entwined with two of man's primordial needs: the imperative to survive and the desire to possess and enjoy beauty".

Gold's earliest use was as adornment or decoration – the desire for beauty – but later it became money. The great gold coins of the past were in circulation for centuries. Just five gold coins (the Roman *aureus*, the Roman *solidus* which became the Byzantine *nomisma*, the Islamic *dinar*, the Venetian *ducat* and the British *sovereign*) spanned two millennia between them, from the first century BC to almost the present day. Owning gold gave the holder security in times of crisis. As Jastram put it, "When the Four Horsemen galloped, a stock of gold pieces, cunningly concealed or surreptitiously carried, has often meant the difference between living and dying." But a crisis does not have to be extreme to make holding gold logical; it has proven its worth when there are fears of currency depreciation, of high inflation or other times of political or economic uncertainty.

There are many ways in which gold exhibits constancy. Throughout history and in all civilisations it has been cherished. It has offered security in times of political or economic crisis or catastrophe. It is near-indestructible and does not corrode or rust. The amount available changes only slowly; the quantity of newly mined gold that is added each year is a small proportion of the existing stock. And the behaviour of its purchasing power over the centuries appears to be another of its elements of constancy.

The Golden Constant: The English and American Experience 1560-2007 by Roy W Jastram with updated material by Jill Leyland. Published 2009 by Edward Elgar Publishing Ltd (www.e-elgar.com), hardback, 368 pages, ISBN: 978 1 84720 261 1; $140

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