Weekly Hot Take

US Strategic Bitcoin Reserve : Implications

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Peter Chung | Head of Research
peterchung@prestolabs.io

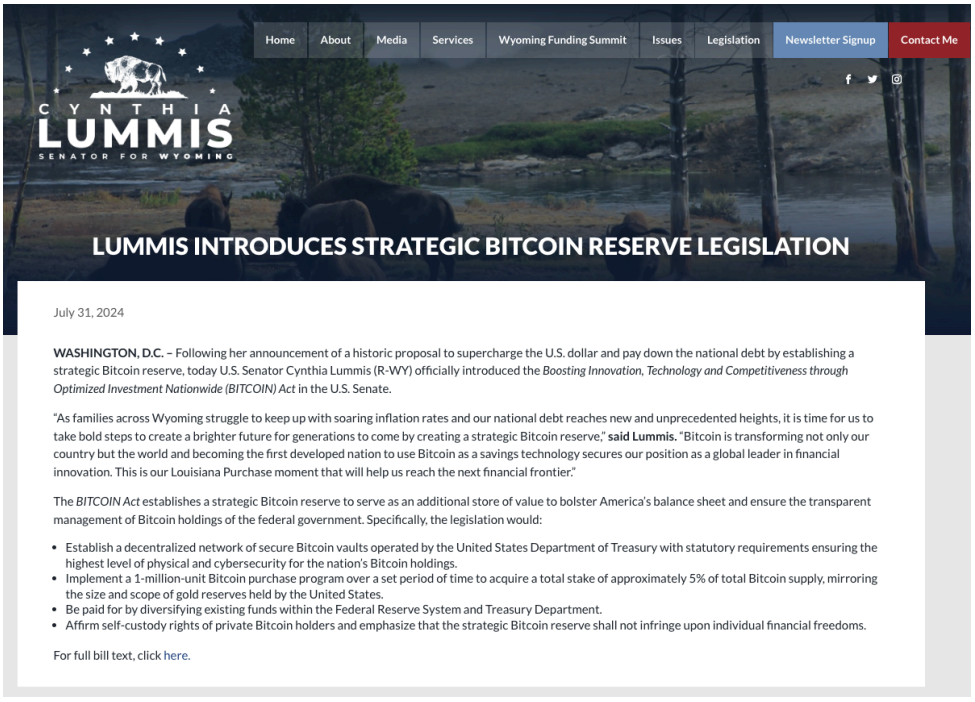
Summary

- Sen. Lummis' Strategic Bitcoin Reserve (SBR) bill aims to create a legislative framework for acquiring bitcoin as a strategic reserve, similar to the Strategic Petroleum Reserve. The purposes are 1) diversification of national assets, 2) strengthening the position of the US dollar in the global financial system, and 3) hedge against economic uncertainty and monetary instability.

- The bill proposes purchasing 1mn BTC ($57bn at today's value) over a 5-year period. The amount represents roughly 5% of bitcoin's total supply, equivalent to the US government's share of global gold reserves. The bill proposes funding the purchase via $600bn in accounting gains on the Fed's balance sheet by revaluing its gold certificate holdings to today's price.

- Our analysis shows that the SBR could 1) help prolong US dollar hegemony, 2) encourage other nation states to follow the US, and 3) accelerate the further integration of bitcoin as a mainstream store of value in both the public and private sectors, implying significant upside price potential.

Figure 1 : "Louisiana Purchase Moment"



Source: https://www.lummis.senate.gov/

Introduction

The bill proposed by the U.S. Senator Cynthia Lummis (R-WY) to establish Strategic Bitcoin Reserve is a historical milestone with tremendous implications and we believe it deserves more attention. To illustrate why, this report will discuss 1) what the Strategic Reserve is, 2) the highlights of the bill, and 3) implications for the US dollar, geopolitics, and BTC price.

Strategic Reserve 101

A strategic reserve is defined as ‘a reserve of a commodity or items held back from normal use by governments, organizations, or businesses to pursue a particular strategy or to cope with unexpected events.’ The best-known example in the US is the Strategic Petroleum Reserve, an emergency stockpile of petroleum maintained by the US Department of Energy to mitigate the impact of oil supply disruptions. Various US government agencies maintain other, less-known strategic reserves, summarized in Figure 2.

Figure 2 : Saving For Rainy Days

	Strategic Petroleum Reserve	Gold Reserve	Strategic National Stockpile	Strategic Grain Reserve
Purpose	To mitigate oil supply disruption	For financial stability and international credibility	For use during public health emergencies	To ensure good security
Managed By	Dept. of Energy	Dept. of Treasury	Dept. of Health and Human Services	Dept. of Agriculture
Established	1974	1934	1999	1930s
Contents	600mn barrels	8,133 metric tons	Antibiotics, vaccines, antidotes, other medical supplies	Wheat, corn, rice
Use	Released during the Gulf War, Hurricane Katrina, 2022 inflation	Sold to stabilize USD in the 70s	Deployed during H1N1, COVID19	-

Source: Wikipedia

Similarly, Sen. Lummis' bill aims to create a legislative framework for acquiring, storing, and managing objects of great value in pursuit of particular strategies, with the object in question being bitcoin. Believing this initiative has the potential to dramatically improve the US's strategic positioning, much like the Louisiana Purchase in the early 19th century, Lummis describes the proposal as ‘our Louisiana Purchase moment.’

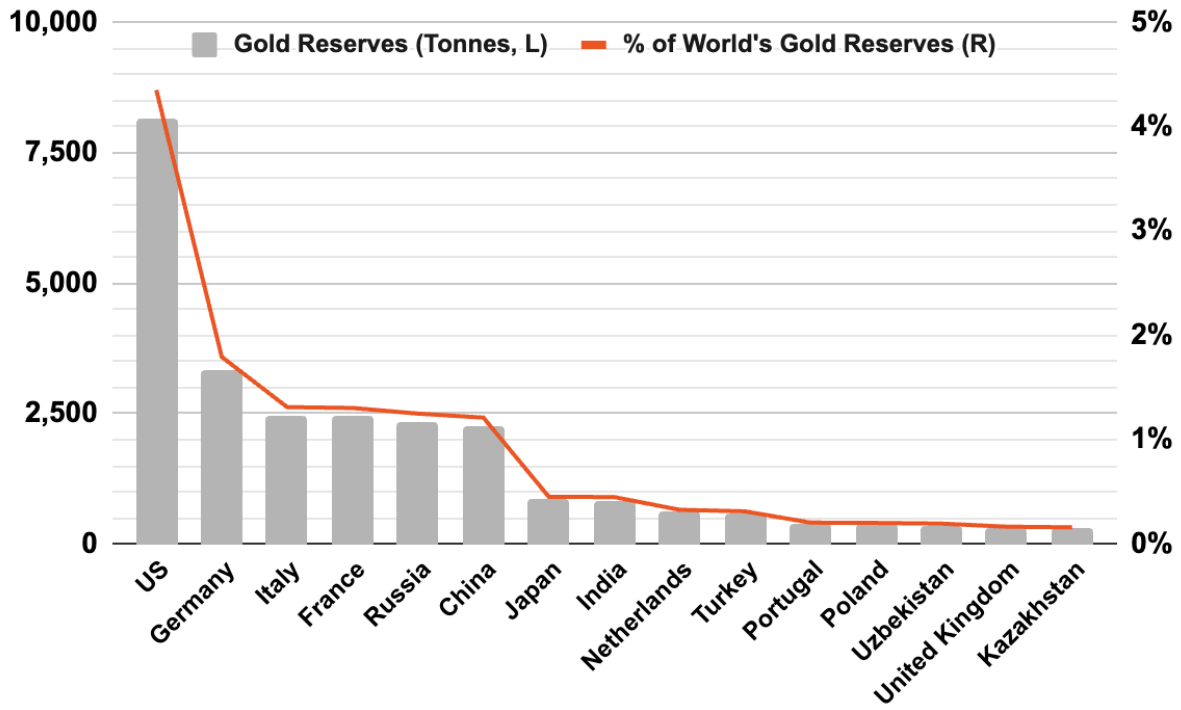
Strategic Bitcoin Reserve (SBR) Legislation: Highlights

The purpose of the bill is to enact the *Boosting Innovation, Technology and Competitiveness through Optimized Investment Nationwide Act of 2024 (the BITCOIN AC of 2024)*, which was submitted to the Committee on Banking, Housing, and Urban Affairs in the Senate on July 31st. The highlights of the 13-page bill (full text here) are outlined below.

Purchase

The bill proposes implementing a '1-million-unit bitcoin purchase program' over a 5-year period, which translates into acquiring no more than 200,000 BTC per year. At today's price, this would amount to a $57bn purchase. The 1mn BTC represents roughly 5% of bitcoin's total supply. This is benchmarked against the US government's gold reserves, which currently stand at 8,133 tonnes, or roughly 4% of the global above-ground gold reserves (Figure 3). The US government already possesses 203,239 BTC (1% of total bitcoin supply) through the US Marshals Service's 'asset forfeiture' (Figure 4). By reclassifying it as a strategic reserve, the US government can acquire the remaining 4% in the market to complete the targeted purchase in a more measured and strategic manner, thus minimizing market impact. The bill also provisions for a procedure to adjust the purchase schedule based on prevailing market conditions.

Figure 3 : Gold Holdings Share By Country (2023)



Source: World Gold Council

Figure 4 : US Government BTC Holdings (as of Aug 18, 2024)

Source: Arkham Intelligence

Custody

The acquired bitcoins are to be stored and managed in a geographically distributed multi-sig cold storage facility operated by the US Department of Treasury, adopting the best practice from the crypto industry. Employing Proof of Reserve, the storage is to be managed in the most transparent way possible without compromising the physical and cybersecurity for the asset.

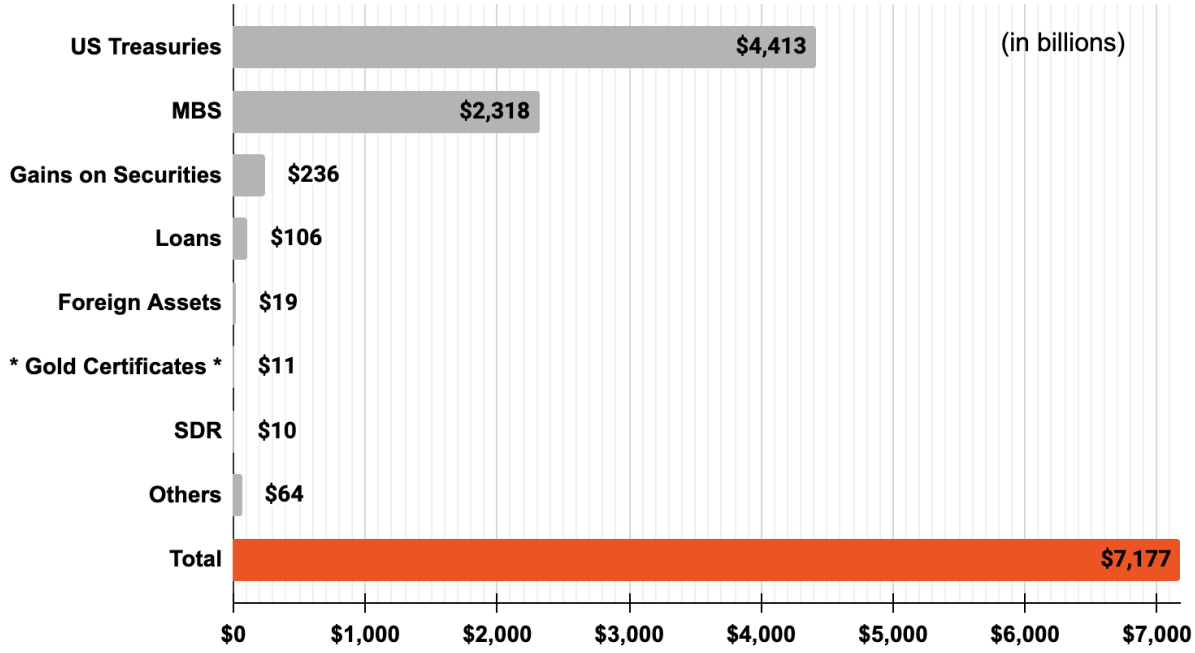
Funding Source

In a nutshell, the bill proposes the purchase be funded by the unrealized gains on the Fed's gold certificates. Understanding this mechanism requires some background knowledge.

Contrary to popular belief, the Fed does NOT own gold reserves. The US government's gold reserves, stored at Fort Knox and a few other locations, are owned and managed by the Department of Treasury, while the Fed simply holds claims against them in the form of 'gold certificates (Figure 5).' The reported value of the Fed's gold certificates is $11bn, based on 'the official US government gold price' of $42.22/oz. This price was fixed in 1973 and has not been marked-to-market since (doing so would require an amendment to the Gold Reserve Act), making it a deep discount to today's market price of $2,400/oz.

The bill proposes that the Fed revalue the gold certificates at today's market price, book over $600bn paper gains, and use those gains to finance the bitcoin purchase. To facilitate this, the bill recommends tweaking the arcane rules on the Fed's Surplus Funds and how they are shared with the Treasury (see Appendix for more). This would have the effect of unlocking massive value on the Fed's balance sheet, which could then be converted into new assets such as bitcoin. The benefits of this approach are 1) the funding does not come from taxpayers, and 2) the Treasury does not have to sell any of its hard asset holdings, such as gold.

Figure 5 : The Fed Balance Sheet Assets (as of Aug 15, 2024)



Source: Federal Reserve

Purpose & Use

The bill states the purpose of the purchase are 1) diversification of national assets, 2) strengthening the position of the US dollar in the global financial system, and 3) hedge against economic uncertainty and monetary instability. The bill requires a minimum holding period of 20 years, during which no bitcoin held in the SBR "may be sold, swapped, auctioned, encumbered or otherwise disposed of for any purpose other than retiring outstanding Federal debt instruments." After the minimum holding period, the bill imposes no specific rules other than limiting sales to no more than 10% of the SBR during any 2-year period.

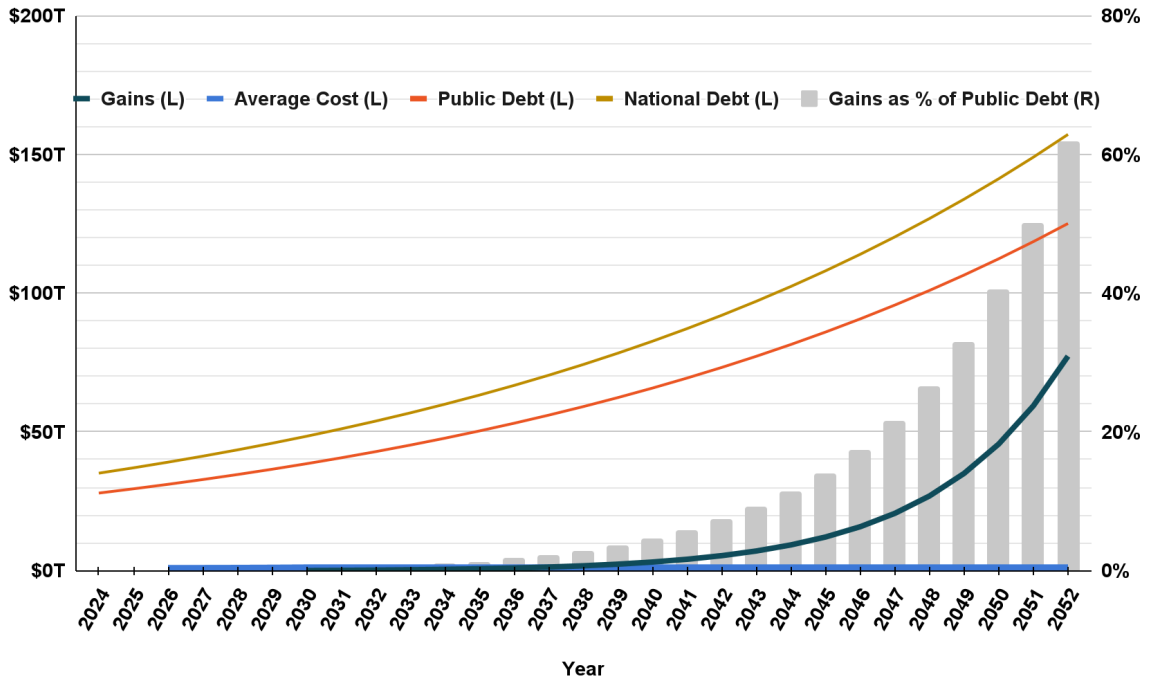
Implications

The successful implementation of the SBR in the US would have various implications for the world. We discuss three below.

US Dollar Hegemony

Today's global financial system is underpinned by the trust in the US dollars. Ironically, the source of risk to the system is not external but from within, as the US government's credibility as the issuer of the currency is undermined by the burgeoning national debt. The SBR, if implemented as outlined in the bill, could potentially mitigate the risk in a meaningful way. To illustrate this, we have built projections for the US national debt and the SBR for the next 25 years, as shown in Figure 6.

Figure 6 : The SBR Gains Can Cover Half of US Public Debt



Source: See Appendix

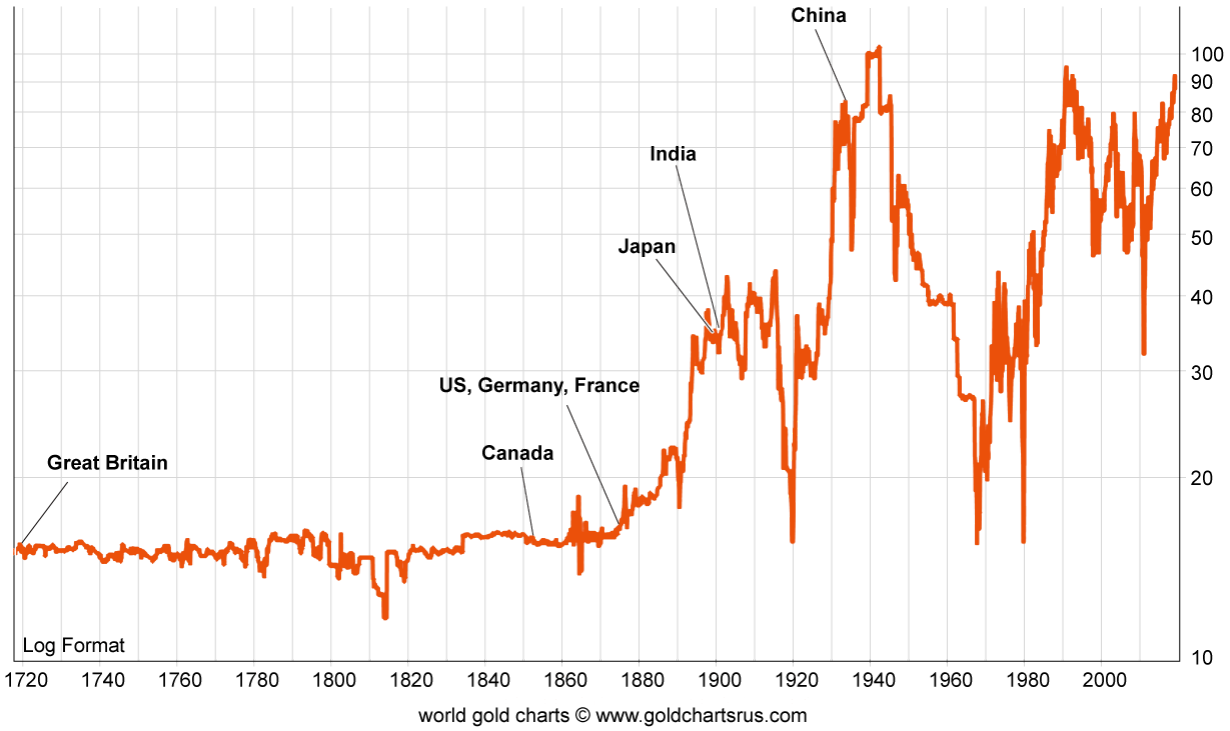
The model shows that, when the SBR's minimum holding period ends in 2051 (i.e. 20 years after the purchase is completed in 2031), the capital gains on the SBR will be sufficient to cover half of the US government's public debt. The critical assumption in this analysis of course is the +30% CAGR for BTC price. While this may appear aggressive in the context of TradFi assets, it is very conservative when compared to BTC's own history. This is the most credible solution to-date by the US political leadership to address the mounting US national debt in our view. It is a plan that can strengthen the US dollar's reserve status and, more broadly, serve as a stabilizer for the existing global financial regime.

Geopolitics

Throughout history, nation-states have raced to secure various strategic resources, sometimes even at the expense of costly wars. Grains, minerals, spices, precious metals, oils, and trade routes are all examples of resources that countries have fought to control. The success or failure in securing these assets has led some nations to flourish, while many others have perished.

Particularly early European explorers ventured into the New World during the Age of Exploration and brought back precious metals such as gold and silver, helping European monarchs accumulate these assets. Until the mid-19th century, both gold and silver were widely used as currency for international trade settlements (in fact, the Chinese word for bank is 銀行, which literally means 'silver house/shop'). However, momentum shifted in favor of gold in the 1870s as European powers began adopting the Gold Standard one by one. This led to an increasing demand for gold relative to silver, as evidenced by the spike in the gold-silver exchange ratio in the following decades (Figure 7). Countries who were late to this trend, such as India and China, were forced to exchange their silver for gold at much unfavorable rates. Saiefdean Ammous describes this process well in his book *The Bitcoin Standard*; he even goes as far as to claim that the two countries' failure to embrace the Gold Standard early contributed to the decline of their economic power.

Figure 7 : Timeline of The Classical Gold Standard Adoption and Gold/Silver Exchange Ratio



Source: SD Bullion, The Bitcoin Standard, Presto Research

As a politically neutral, borderless asset with time/space salability, bitcoin shares many of the attributes of strategic resources like precious metals as a store of value. With the U.S. government – the most influential in the world – potentially embarking on a plan to accumulate this new strategic asset, it is highly conceivable that other countries will follow, triggering a global Bitcoin allocation race similar to the global gold allocation race in the late 19th century. Governments that understand history should be well aware that complacency or inaction could result in generational damage.

Since the SBR bill announcement in July, two countries – China and Russia – have already made moves to follow the US, according to media reports. Inspired by Trump's speech in Nashville, Hong Kong lawmaker Johnny Ng stated on his X post that “I will discuss the feasibility and opportunities of including Bitcoin in financial reserves with different stakeholders in Hong Kong.” Separately, Reuters reported that Russian lawmakers passed a bill that allows businesses to use cryptocurrencies in international trade, with the law expected to go into effect in September. The game theory is already on full display.

BTC Price

The long-term BTC price implications of the SBR can be viewed from two angles.

- **Government adoption** - i.e. the additional demand creation as the governments around the world join the race to acquire bitcoin.
- **Private investment adoption** - i.e. positive second order effect from the BTC’s elevated status on the private sector’s investment demand.

To estimate price impact at various adoption levels, we have built a sensitivity analysis, as in Figure 8.

Figure 8 : Global Gold Reserves Breakdown By Usage (2022)

	Metric Tonnes	% share	troy ounce (bn)	Market Value (bn)
Gold Reserves Held By Governments	35,715	17.1%	1.148	$2,756
Gold Reserves Held By Private Investments (e.g. ETF, etc.)	46,517	22.3%	1.496	$3,589
Jewelry	95,547	45.7%	3.072	$7,373
Industrial	31,096	14.9%	1.000	$2,399
Total Above-Ground Gold Reserves	208,874	100.0%	6.715	$16,117
Gold Price per troy ounce :	$2,400			
1 metric tonne :	32,150.7	troy ounce		

Source: World Gold Council, Presto Research

Figure 9 : New Demand Creation From SBR - Sensitivity Analysis

			Private Investment Adoption						
	Adoption Level		0%	25%	50%	75%	100%	125%	150%
		BTC % Held	0.0%	5.6%	11.1%	16.7%	22.3%	27.8%	33.4%
Government Adoption	25%	4.3%	$50bn	$250bn	$450bn	$650bn	$850bn	$1,049bn	$1,249bn
	50%	8.5%	$101bn	$300bn	$500bn	$700bn	$900bn	$1,100bn	$1,300bn
	75%	12.8%	$151bn	$351bn	$550bn	$750bn	$950bn	$1,150bn	$1,350bn
	100%	17.1%	$201bn	$401bn	$601bn	$801bn	$1,000bn	$1,200bn	$1,400bn
	125%	21.4%	$251bn	$451bn	$651bn	$851bn	$1,051bn	$1,251bn	$1,450bn

* New demand creation = today's market value of the BTC % Held + today's market value of the private investment share in gold reserves

Source: World Gold Council, Presto Research

Figure 10 : BTC Fair Value Estimated At Various Adoption Levels

			Private Investment Adoption						
	Adoption Level		0%	25%	50%	75%	100%	125%	150%
		BTC % Held	0.0%	5.6%	11.1%	16.7%	22.3%	27.8%	33.4%
Government Adoption	25%	4.3%	$62,108	$72,231	$82,353	$92,476	$102,599	$112,722	$122,845
	50%	8.5%	$64,654	$74,777	$84,899	$95,022	$105,145	$115,268	$125,391
	75%	12.8%	$67,200	$77,323	$87,446	$97,568	$107,691	$117,814	$127,937
	100%	17.1%	$69,746	$79,869	$89,992	$100,115	$110,237	$120,360	$130,483
	125%	21.4%	$72,292	$82,415	$92,538	$102,661	$112,783	$122,906	$133,029

* Based on, 19,741,387 BTC circulating Supply and $1,175,828,990,767 market cap, as of Aug 15, 2024
** Fair value = (today's market cap + new demand creation) / circulating supply

Source: World Gold Council, CoinGecko, Presto Research

A good starting point is to assume that the SBR helps BTC achieve gold-equivalent share in both governments' reserve asset portfolio and private sector investments. In other words,

- **Government adoption:** 100% of the government's share in global gold reserves
- **Private investment adoption:** 100% of the private investment share in the global gold reserves

The sensitivity table shows the above assumptions would add an additional $1tn to the investment demand for BTC (Figure 9), which translates into a BTC price of $110,237 (Figure 10).

Those who have different views on the outlook for adoption levels can use the table to arrive at their own conclusions. Factors to consider include (but are not limited to),

- **Concentration in government reserves:** It only takes the commitment of a little more than a dozen countries to reach near-100% government adoption, as the governments' gold holdings are highly concentrated. 75% of total government gold reserves (about 26,000 metric tonnes out of the total 35,000) are held by 12 countries (see Figure 3 above).
- **Spillover from jewelry demand:** Almost half of the global gold reserves are in the form of jewelry, with half of the jewelry demand concentrated in India and China. Labeling this as a 'cultural preference' is not inaccurate, but at a deeper level, this phenomena is rooted in the belief that these ornaments double as a store of value in times of emergency. Considering this, the share of private investment demand is likely understated. This suggests that private investment demand for BTC has potential to exceed the equivalent share in gold reserves. Spot bitcoin ETFs are a great enabler of this trend.
- **Ceteris paribus:** The purpose of the table is to illustrate the significance of the SBR by isolating its impact from other factors, and hence assumes other BTC price drivers remain unchanged. In reality, the BTC price move is multifaceted.

Final Words

Despite the promises of the SBR bill, signing it into law will face its share of challenges. The legislative process can take years, given that comprehending the strategic benefits of the SBR requires an understanding of Bitcoin basics among members of Congress. The bill's proposal to amend the Federal Reserve Act and the Gold Reserve Act is also likely to encounter resistance from various interest groups who prefer the status quo. Although Sen. Lummis is a highly respected senator, her track record on passing laws has been average so far.

That said, there are early indications showing that lawmakers are seeing strong support for the bill from their constituents (Figure 11). With Wall Street slowly but surely embracing the asset class and the public urgency to resolve fiscal deficits, the bill may gain more momentum in the right political environment. Even if passage is years away, the submission of the bill now means the conversation will begin, lawmakers will seek education, and other governments will have a benchmark to follow. That's already a huge leap compared to where things were a year ago, and it's an improvement that the market has yet to fully discount.

Appendix I:
Proposed Rule Changes on the Fed's Surplus Funds

The Federal Reserve (Fed) is not a government agency in the strictest sense but rather a unique, hybrid institution with both public and private characteristics. Under the Federal Reserve Act, the Fed is required to transfer its profits to the U.S. Treasury.

The Fed's revenue primarily consists of interest income from various assets it holds, such as U.S. government securities, loans to financial institutions, and fees for services provided to banks. After netting operating expenses and dividend payments to its member banks, the Fed's net income is largely transferred to the U.S. Treasury as 'remittances.' These remittances occur when the 'Surplus Fund,' the Fed's retained earnings, exceeds a certain threshold, currently set at $6.825bn. The Fed transfers any excess beyond this threshold to the Treasury.

The SBR bill proposes an amendment to the Federal Reserve Act, reducing the threshold to $2.4bn. This change would allow more frequent and larger remittances, providing the Treasury with the funds necessary to acquire BTC more quickly. Marking the Fed's gold certificates to market would result in an accounting gain of over $600bn —nearly ten times the cost of purchasing 1mn BTC at today's prices.

Figure 11 : Strategic Bitcoin Reserve bill, Section 9

SEC. 9. OFFSETTING THE COST OF THE STRATEGIC BITCOIN RESERVE.

(a) DISCRETIONARY SURPLUS FUNDS OF FEDERAL RESERVE BANKS.—Section 7(a)(3)(A) of the Federal Reserve Act (12 U.S.C. 289(a)(3)(A)) is amended by striking "$6,825,000,000"and inserting "$2,400,000,000".

(b) USE OF REMITTANCES TO TREASURY.—

(1) IN GENERAL.—Notwithstanding the second subsection (b) of section 7 of the Federal Reserve Act (12 U.S.C. 290), for fiscal years 2025 through 2029, if the Federal reserve banks remit net earnings to the general fund of the Treasury during that period, the first $6,000,000,000 of these remittances (before repayment of any deferred asset) in a fiscal year shall be utilized by the Secretary for the implementation of the Bitcoin Purchase Program, pursuant to the purposes set forth under section 5.

Source: lummis.senate.gov

Appendix II:

Projections on US Public Debt & SBR Investment Gains (Data For Figure 6)

	Main Data									Assumptions			
	Year	National Debt (4)	Agency Debts	Public Debt	SBR (BTCs)	SBR ($)	Average Cost	Gains	Gains as % of Public Debt	BTC/USD CAGR (1)	BTC/USD	Public Debt Share (2)	National Debt Growth Rate (3)
Legislative Process	2024	$35.10	7.17	$27.93		-	-	-	-	30%	50,000	80%	5.5%
	2025	$37.03	7.56	$29.47		-	-	-	-	30%	65,000	80%	5.5%
Purchase Period (5 years)	2026	$39.07	7.98	$31.09	200,000	-	$0.02	-	-	30%	84,500	80%	5.5%
	2027	$41.22	8.42	$32.80	400,000	-	$0.04	-	-	30%	109,850	80%	5.5%
	2028	$43.48	8.88	$34.60	600,000	-	$0.09	-	-	30%	142,805	80%	5.5%
	2029	$45.87	9.37	$36.50	800,000	-	$0.15	-	-	30%	185,647	80%	5.5%
	2030	$48.40	9.89	$38.51	1,000,000	$0.24	$0.24	$0.00	-	30%	241,340	80%	5.5%
Minimum Holding Period (20 years)	2031	$51.06	10.43	$40.63	1,000,000	$0.31	$0.24	$0.07	0%	30%	313,743	80%	5.5%
	2032	$53.87	11.00	$42.86	1,000,000	$0.41	$0.24	$0.17	0%	30%	407,865	80%	5.5%
	2033	$56.83	11.61	$45.22	1,000,000	$0.53	$0.24	$0.29	1%	30%	530,225	80%	5.5%
	2034	$59.96	12.25	$47.71	1,000,000	$0.69	$0.24	$0.45	1%	30%	689,292	80%	5.5%
	2035	$63.25	12.92	$50.33	1,000,000	$0.90	$0.24	$0.65	1%	30%	896,080	80%	5.5%
	2036	$66.73	13.63	$53.10	1,000,000	$1.16	$0.24	$0.92	2%	30%	1,164,904	80%	5.5%
	2037	$70.40	14.38	$56.02	1,000,000	$1.51	$0.24	$1.27	2%	30%	1,514,376	80%	5.5%
	2038	$74.27	15.17	$59.10	1,000,000	$1.97	$0.24	$1.73	3%	30%	1,968,688	80%	5.5%
	2039	$78.36	16.01	$62.35	1,000,000	$2.56	$0.24	$2.32	4%	30%	2,559,295	80%	5.5%
	2040	$82.67	16.89	$65.78	1,000,000	$3.33	$0.24	$3.09	5%	30%	3,327,083	80%	5.5%
	2041	$87.22	17.82	$69.40	1,000,000	$4.33	$0.24	$4.08	6%	30%	4,325,208	80%	5.5%
	2042	$92.01	18.80	$73.22	1,000,000	$5.62	$0.24	$5.38	7%	30%	5,622,770	80%	5.5%
	2043	$97.07	19.83	$77.24	1,000,000	$7.31	$0.24	$7.07	9%	30%	7,309,601	80%	5.5%
	2044	$102.41	20.92	$81.49	1,000,000	$9.50	$0.24	$9.26	11%	30%	9,502,482	80%	5.5%
	2045	$108.05	22.07	$85.98	1,000,000	$12.35	$0.24	$12.11	14%	30%	12,353,226	80%	5.5%
	2046	$113.99	23.28	$90.70	1,000,000	$16.06	$0.24	$15.82	17%	30%	16,059,194	80%	5.5%
	2047	$120.26	24.57	$95.69	1,000,000	$20.88	$0.24	$20.64	22%	30%	20,876,953	80%	5.5%
	2048	$126.87	25.92	$100.96	1,000,000	$27.14	$0.24	$26.90	27%	30%	27,140,039	80%	5.5%
	2049	$133.85	27.34	$106.51	1,000,000	$35.28	$0.24	$35.04	33%	30%	35,282,050	80%	5.5%
	2050	$141.21	28.85	$112.37	1,000,000	$45.87	$0.24	$45.63	41%	30%	45,866,665	80%	5.5%
USD Hegemony 2.0	2051	$148.98	30.43	$118.55	1,000,000	$59.63	$0.24	$59.39	50%	30%	59,626,665	80%	5.5%
	2052	$157.17	32.11	$125.07	1,000,000	$77.51	$0.24	$77.27	62%	30%	77,514,664	80%	5.5%

Note:

(1) BTC CAGR of the last 5 years, 10 years, 14 years are +41%, +61%, +166% respectively (source: caseinbitcoin.com). We applied 50% to the last 10 years CAGR.

(2) The US national debt consists of the portion held by the public (public debt) and the portion held by the government agencies (agency debt, a.k.a. intragovernmental debt), such as Social Security or Medicare. We assume 80% for public debt portion based on history.

(3) The projections from the Congressional Budget Office and various think tanks range 5-6%.

(4) As of Aug 15, 2024 from fiscaldata.treasury.gov

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Authors

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X, Telegram, LinkedIn

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