## Digging for Gold: A Multivariate Analysis of the Passage of State "Sound Money" Laws

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## **ABSTRACT**

Since its inception, the U.S. Federal Reserve's monetary policies have led, directly and indirectly, to a decline of over 95% in the purchasing power of the U.S. dollar. As a result, there have been several attempts to curtail or eliminate the Federal Reserve's monopolistic powers; however, none have proven successful to date, due mainly to the constraints of strong political opposition at the national level.

In contrast to these attempts at the national level, this paper examines the levels of success and possible correlating factors of an alternative approach to ending the Federal Reserve's monopoly on money: "sound money" bills, introduced at the state legislative level, the purpose of which are to move each state that passes them in the direction of adherence to the U.S. Constitution's "legal tender" provisions of Article I, Section 10.

Since the financial crisis of 2008-2009, there appears to be a renewed interest in "sound money" bills across the United States, including "Constitutional Tender," "State Legal Tender," "Gold/Silver Sales Tax Elimination," and "State Bullion Depository" bills. Using multivariate analysis of state legislatures, this paper attempts to determine what factors are associated with the successful, and failed, passage of these type of bills.

Since its inception, the U.S. Federal Reserve's monopolistic monetary policies have led, directly and indirectly, to a decline of nearly 96% in the purchasing power of the U.S. dollar.¹ As a result, there have been several attempts in the U.S. Congress to curtail or eliminate the Federal Reserve's monopolistic powers (e.g., the efforts of Rep. Louis T. McFadden in the 1930s;² the efforts of Rep. Wright Patman in the 1970s;³ the efforts of Rep. Henry Gonzalez in the 1990s;⁴ and the efforts of Rep. Ron Paul and his successors through the early 2010s⁵). However, none have proven successful to date, due mainly to the constraints of strong political opposition at the national level. In contrast to such attempts at the national level, this paper examines the levels of success thus far of an alternative approach to ending the Federal Reserve's monopoly on money: "sound money" bills, introduced at the state

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<sup>&</sup>lt;sup>1</sup> 95.8%. Calculated at usinflationcalculator.com on March 23, 2015, based on the Consumer Price Index provided by the U.S. Bureau of Labor Statistics. CPI data was last updated by BLS on February 26, 2015, and covers up to January 2015.

<sup>&</sup>lt;sup>2</sup> McFadden introduced a motion for impeachment of the Federal Reserve's Board of Governors on May 23, 1933 (House Resolution No. 158).

<sup>&</sup>lt;sup>3</sup> Patman introduced several bills calling for a General Accounting Office audit of the Federal Reserve Board, the Federal Advisory Council, the Federal Open Market Committee and Federal Reserve banks and their branches in the 1970s, including HR 7590 (1975), which garnered 21 additional co-sponsors. However, the companion bill in the Senate (S. 2509), introduced by Sen. William Proxmire of Wisconsin, had no co-sponsors at all.

<sup>&</sup>lt;sup>4</sup> In July 1991, Gonzalez asked the Federal Reserve Board to submit to a congressional audit of its discount-window lending operations, but was refused; in 1993, he again voiced his support for legislation that would audit the Federal Reserve System (as well as make its meetings televised and open to the public, and requiring the President to appoint its twelve members).

<sup>&</sup>lt;sup>5</sup> For example, his final bills in this area, H.R. 1094 (to end the Federal Reserve) and H.R. 459 (to audit the Federal Reserve). Paul's "End the Fed" bill was re-introduced in the House of Representatives by Rep. Paul Broun of Georgia after Ron Paul retired (H.R. 73); his "Audit the Fed" bill has also been re-introduced in the Senate (S. 264) by his son, Sen. Rand Paul of Kentucky, and by Rep. Thomas Massie of Kentucky in the latest House session.

legislative level, including "Constitutional Tender," "State Legal Tender," "Gold/Silver Sales Tax Elimination," and "State Bullion Depository" bills.<sup>6</sup> Using multivariate analysis of state legislatures, this paper attempts to determine what factors are associated with the successful, and failed, passage of these type of bills.

For this project, the authors focused on bills introduced between 2009-2015.<sup>7</sup> The purpose of such bills, as noted by their proponents, are to move each state that passes them in the direction of adherence to the "Constitutional Tender Clause" – the U.S. Constitution's negative mandate included in Article I, Section 10, that "No State shall... make any Thing but gold and silver Coin a Tender in Payment of Debts." This proscription forbids any state from making anything an acceptable legal offer of payment (that is, a legal "tender") other than gold or silver coins.<sup>8</sup> Should a state strictly adhere to this provision, it would mean that it would be unable to "make" something besides gold or silver a "tender in payment" (which

<sup>&</sup>lt;sup>6</sup> The authors of this paper, like the authors of the bills examined, use the term "sound money" in the classical liberal economics sense. "Sound money meant a metallic standard. Standard coins should be in fact a definite quantity of the standard metal as precisely determined by the law of the country. Only standard coins should have unlimited legal-tender quality. Token coins and all kinds of moneylike paper should be, on presentation and without delay, redeemed in lawful standard money." (Mises, 413)

<sup>&</sup>lt;sup>7</sup> Prior to 2009, the authors found only a single modern state "sound money" bill introduced: the "New Hampshire Sound Money Bill" (H.B. 1342), in the 2003-2004 session. From 2009-2015, the authors found no less than 26 bills introduced; at least two more were introduced too late to be included in this study.

<sup>&</sup>lt;sup>8</sup> For a contextual understanding of this phrase "to make something a tender in payment of debt," see the original 1828 Webster's Dictionary – "TENDER: In law, an offer, either of money to pay a debt, or of service to be performed, in order to save a penalty or forfeiture which would be incurred by non-payment or non-performance; as the tender of rent due, or of the amount of a note or bond with interest. To constitute a legal tender, such money must be offered as the law prescribes; the offer of bank notes is not a legal tender."

would mean it could not "make something else an acceptable offer as payment") for any debts, which would include debts owed by and to the state. Since Federal Reserve Notes are a form of fiat currency, not backed by gold or silver, then states are proscribed from making them a legal "tender," either explicitly or implicitly.

Therefore, proponents of state "sound money" bills often view their efforts as attempts to "nullify" the use of Federal Reserve Notes (and therefore, ultimately, the Federal Reserve itself) at the state level (Greene, 2010). As noted previously, over the course of time, whenever there have been attempts to end, or even to maintain greater oversight of, the Federal Reserve, those efforts have been strongly rebuffed. Each of these different efforts over the last 80 years – whether by McFadden, Patman, Gonzalez, Paul, or others – have had two features in common: they have all been "top-down" anti-Fed efforts at the national level, and they have all been thwarted by concerted political opposition at that level. Accordingly, some of the Federal Reserve's opponents have called for a new tactic, which could achieve the desired goal of abolishing the Federal Reserve system by attacking it from the "bottom up" – "pulling the rug out from under it," by working to make its functions irrelevant at the state and local level. That new tactic is promoting the passage of "sound money" bills in individual states across the country. 10

These state "sound money" bills come in four types or forms: Constitutional

Tender bills, State Legal Tender bills, Sales Tax Elimination bills, and State Bullion

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 $<sup>^9</sup>$  Fiat currency is unmoored from the value of any physical quantity of specie, in juxtaposition to representative currency, which requires that the issuing party redeem it in fixed weights of gold, silver, or other specie. See Andrei, 2011.  $^{10}$  See the Tenth Amendment Center's "Constitutional Tender Campaign" at http://tender.tenthamendmentcenter.com/ .

Depository bills. The first type is best exemplified by the Constitutional Tender Act, a proposed state law, first introduced in 2009 as HB 430 (and then in 2011 as HB 3) in the Georgia House of Representatives (Rauch 2009), under which the state would be required to only use gold and silver coins (or their representative equivalents, such as representative certificates, checks or electronic transfers) for payments of any debt owed by or to the state (e.g., taxes, fees, contract payments, tax refunds, etc.). All contracts, tax bills, etc. would be required to be denominated in legal tender gold and silver U.S. coins, including Gold Eagles, Silver Eagles, and pre-1965 90% silver coins. All state-chartered banks, as well as any other bank that is a depository for state funds, would be required to offer accounts denominated in those types of gold and silver coins, and to keep such accounts segregated from other types of accounts such as Federal Reserve Notes.

Upon going into effect, proponents of the Constitutional Tender Act believe that it would introduce currency competition with Federal Reserve Notes, by outlawing their use in transactions with the state. Ordinary citizens of the state, being required to pay their state taxes in legal tender U.S. gold and silver coins, would find it necessary to open bank accounts in those denominations, so that they could continue to engage in monetary transactions with the state through familiar means (checks, debit cards, wire transfers, etc.). Businesses operating within the state, being required to pay their state sales taxes and license fees in gold and silver coins, would need to do the same; and in order to acquire such coins, many would begin to offer their goods and services in "dual currency" denominations, where customers could choose to pay in Federal Reserve Notes (which would still be

necessary to pay Federal fees and taxes) or gold and silver coins (including checks and debit cards based on bank accounts denominated in such coins).<sup>11</sup> Customers, having found the need to open such accounts in order to deal with the state, would also be able to engage in private commerce using those accounts.

A less "pure" type of Article I, Section 10, "sound money" bill is the "State Legal Tender" bill, first introduced (and passed into law) in Utah in 2011<sup>12</sup> (Oklahoma passed a similar bill into law in 2014).<sup>13</sup> These types of bills are predicated upon the modern definition of "legal tender"; that is, currency that the law declares may be offered in payment of a debt and that a creditor is supposed to accept. Therefore, proponents of "State Legal Tender" bills desire to have the government make an official declaration that a form of money is acceptable for using as payment; that is, they believe that states can declare by law that gold and silver coins are "legal tender," because the U.S. Constitution says in Article I, Section 10, "No State shall... make any Thing but gold and silver Coin a Tender in Payment of

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<sup>&</sup>lt;sup>11</sup> There are many areas around the world where merchants successfully offer goods in "dual currency" denominational options; e.g., "border towns" between countries such as Northern Ireland and the Republic of Ireland, Indonesia and East Malaysia, and the United States and Mexico and Canada. For example, employing a stratified random sampling approach of retail business in the border regions between the U.S. and its northern and southern neighbors, Pisani et al. (2008) demonstrate that all Mexican firms and nearly all Canadian firms studied accept the U.S. dollar in retail transactions.

<sup>&</sup>lt;sup>12</sup> H.B. 317, the "Legal Tender Act of 2011." Signed into law by Gov. Gary R. Herbert on March 25, 2011. See http://le.utah.gov/~2011/bills/hbillenr/hb0317.htm. <sup>13</sup> S.B. 862 declared gold and silver coins to be legal tender in the state of Oklahoma, but unlike Utah's bill, which also exempts the monetary metals from capital gains taxes, S.B. 862 only exempted them from sales taxes. See http://www.oklegislature.gov/BillInfo.aspx?Bill=SB862&session=1400

Debts". Therefore, their reasoning goes, a State may make gold and silver coins "legal tender."

Additionally, by this reasoning, like other forms of "legal tender," no one is required to accept legal tender as payment; as noted at StateLegalTender.com, "it simply designates it as acceptable currency. It is not uncommon for retailers to decline to accept U.S. paper dollars and coins, for example, as a matter of policy (such as a convenience store refusing to accept large denominations). No one is forced to tender or accept gold and silver legal tender coins."<sup>14</sup>

To summarize, then, if a state passes a "State Legal Tender" law (as Utah and Oklahoma did), no one (including the state itself) is *required* to use gold and silver coins; the law only says they *can* use them in dealings with the state (juxtapose this with the Constitutional Tender bills' *requirement* that the state use and accept *only* gold and silver coins). More specifically, it says that they can use them at their actual value (the value of their gold or silver content), rather than at the "face value" that the U.S. Mint stamped on them. In addition, it removes the "sales taxes" in any "commodities exchange" of legal tender Federal Reserve Notes for legal tender gold or silver coins (that is, instead of treating such an exchange as "buying gold or silver coins," it treats the exchange just like you would treat an exchange of legal tender \$1 bills for a legal tender \$20 bill: actual value for actual value).

This brings us to the third type of state "sound money" bill introduced in recent years: gold & silver "Sales Tax Elimination" bills, which eliminate the state taxation of "legal tender" currency exchanges as described above. So, in states

<sup>&</sup>lt;sup>14</sup> See https://statelegaltender.com/why-legal-tender/.

which pass such bills, if you wish to acquire a U.S. "Silver Eagle" (which is guaranteed to contain one troy ounce of 99.9% pure silver and has a nominal face value of USD\$1.00), you could simply exchange the appropriate amount of Federal Reserve Notes at the current market exchange rate for one ounce of silver. Since this would not be considered a "purchase" of silver bullion under state law, the exchange would not be taxable by the state. Again, the purpose of such bills would be to encourage the circulation of gold and silver coins by restoring their status as "legal tender" in the fullest sense of the term.

The final type of bill is similar in its goal: several states have introduced bills to create State Bullion Depositories, which would provide a basis for intergovernmental payments and transactions between people using gold and silver. As noted in the *Texas Sound Money* blog, such bills essentially create a means for intergovernmental transactions to occur in precious metals:

"Taxes could be paid in precious metals and it would allow people who receive payments from the government to elect precious metals for payment. It would also allow normal citizens to open an account and deposit their precious metals in the state depository. They could then use the electronic system to make payments to any other business or person who also hold an account." <sup>16</sup>

In short, as noted by Shane Trejo at the Tenth Amendment Center, "it will help establish a system whereby people will be able to more easily conduct day-to-

8

<sup>&</sup>lt;sup>15</sup> However, because the U.S. Internal Revenue Service considers "precious metals," including U.S. legal tender gold and silver coins, to be "collectibles," a special capital gains rate applies at the *federal* level to any "profits" on their "sale," so *federal* taxes would still be due.

<sup>16</sup> http://texassoundmoney.org/gold-depository-bill-potential/

day transactions by gold and silver, an essential step in the promotion and use of sound money."<sup>17</sup>

Whether it is Constitutional Tender bills, State Legal Tender bills, Sales Tax Elimination bills, or State Bullion Depository bills that are under consideration, proponents of state "sound money" bills believe that over time (Wells 2011), as residents of the state use both Federal Reserve Notes and silver and gold coins, the fact that the coins hold their value more than Federal Reserve Notes do will lead to a "reverse Gresham's Law" effect, 18 where "good" money (gold and silver coins) will drive out "bad" money (Federal Reserve Notes). Economist Peter Bernholz (1989) has labeled this "reverse Gresham's law" as "Thiers' Law," after French politician and historian Adolphe Thiers. Thiers found that, following the French Revolution, when the people of France were no longer required by law to accept official government paper fiat money, gold and silver, "which was supposed to be hoarded or carried abroad, found its way into circulation." Indeed,

"In all the markets nothing was to be seen but gold and silver, and the wages of the lower classes were paid in no other medium. One would have imagined that there was no paper in France. The mandats [paper bank notes issued as currency in 1796 to replace the assignats, which had become virtually worthless] were in the hands of speculators only." (Siklos 1995, 98)

 $<sup>^{\</sup>rm 17}$  http://blog.tenthamendmentcenter.com/2015/03/texas-bill-would-legalize-gold-and-silver-as-legal-tender-help-nullify-the-fed/

<sup>&</sup>lt;sup>18</sup> Gresham's law may be stated as, "Where legal tender laws exist, bad money drives out good money" (where "bad money" refers to fiat currency, and "good money" refers to specie-backed currency). A reverse of this would be, "In the absence of legal tender laws, when people are given the free choice between accepting good money or accepting bad money, bad money becomes less popular than good money, and is driven out of the marketplace." Nobel laureate Robert Mundell (1998) writes that a "more correct (but not perfect!) rendering of Gresham's Law is that 'Bad money drives out good *if they exchange for the same price.*" (Emphasis in original.)

As "Thiers' Law" takes effect, proponents of "sound money" claim that a cascade of events can begin to occur, including the flow of real wealth toward the state's treasury, an influx of banking business from outside of the state (as citizens residing in other states carry out their desire to bank with sound money), and an eventual outcry against the use of Federal Reserve Notes for any transactions. Far from causing economic destabilization, as noted by monetary theorist Edwin Vieira, Jr. (2005), a "more sound currency will simply supplant a less sound currency, by operation of the free market." At that point, proponents believe that the Federal Reserve system will have become unwanted and irrelevant, and could be easily abolished by the people's elected Representatives in Washington, D.C.

These state "sound money" bills, then, have been introduced in around two dozen states in order to "nullify the Fed,", and they rely on the U.S. Constitution's negative mandate in Article I, Section 10 to do so, which forbids any State from using (making a tender) anything but gold and silver coins to pay, or receive payment for, any debt (any amount owed to or by the State). This is an approach that has never been brought to court, even though the language of the Constitution is clear and direct: "No State shall". In fact, every State *does* use some other "Thing"

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<sup>&</sup>lt;sup>19</sup> As Vieira claims in his discussion of the possibility of increased usage of "electronic gold currency" (called "goldgrams," a highly-divisible fixed weight of actual gold), "A depression will not occur, because extensive use of 'goldgrams' will actually increase the supply of true, commodity money by remonetizing [gold and silver]... the economy will suffer no destabilization. A more sound currency will simply supplant a less sound currency, by operation of the free market. No hyperinflation will occur, either, because the supply of monetary gold is incapable of huge, arbitrary, and especially politically driven increases. Rather, it is fixed by physical availability, and the free market's control over its production. Conceivably, Federal Reserve Notes and base-metallic currencies may depreciate against gold; but, as they do, gold will appreciate against them" (Vieira 2005).

than gold and silver coins as tender: namely, Federal Reserve Notes, for which there is no longer any claim made that they can be redeemed in gold or silver (indeed, the direct issuance of notes for gold was prohibited by the Federal Reserve Act as originally passed; see Westerfield, 1921). Under state "sound money" bills, not only would the use of FRNs by *the state* be discouraged (or be made illegal, as under the Constitutional Tender Act); the use of legal tender U.S. gold and silver coins would be encouraged amongst *the general population* as well, along with any other currency that parties mutually consent to using.<sup>20</sup>

To summarize, then, proponents of state "sound money" bills are desirous of three effects: the reduction and eventual elimination of Federal Reserve Notes from state transactions; the encouragement and eventual requirement of individuals and businesses to cease using Federal Reserve Notes in their transactions with the state; and the introduction of *competition in currencies* amongst the general population. Proponents believe that, with all three effects working in tandem, the use of low-intrinsic-value pieces of paper issued by the Federal Reserve will become increasingly irrelevant, and an emaciated Federal Reserve system can much more easily be brought to an end – in essence, a *de facto* "nullification" by each State of the Federal Reserve Act itself.

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<sup>&</sup>lt;sup>20</sup> See HB 3 (Constitutional Tender Act of 2011), Section 2 (50-38-3): "Pre-1965 silver coins, silver eagles, and gold eagles shall be the exclusive medium which the state shall use to make any payments whatsoever to any person or entity, whether private or governmental. Such coins shall be the exclusive medium which the state shall accept from any person or entity as payment of any obligation to the state including, without limitation, the payment of taxes; provided, however, that such coins and other forms of currency may be used in all other transactions within the state upon mutual consent of the parties of any such transaction."

So how successful have these state "sound money" bills been? This paper is an attempt to at least begin to measure such successes and failures by analyzing the introduction and passage (or failure) of such bills, state legislatures' ideological makeup, and states' financial stability as possible correlating factors.

This project's dependent variables are looking at the success of state "sound money" bills in the state legislatures who broached the issue between the years 2009 and 2015.<sup>21</sup> The purpose of all of these variables is to classify how far through the legislative process each of these bills advanced (or if a bill was introduced at all). In tables displaying the results, this variable will be labeled "Legislative Success." The first analysis was performed using a simple dichotomous variable measuring whether a relevant bill was introduced in the session (1) or not (0).

The next analysis uses dependent variables that are ordinal in nature. The base category for the first of these variables is that no bill was introduced (0). The next category of bills were those that were introduced, but who failed to make it out of the committee in which they were introduced (1). Bills were also categorized into those that made it out of a committee, but failed to be passed by both of the chambers (2) and finally, if the bills were passed by both of the chambers (3).

The final analysis examines only those states and years in which relevant legislation was introduced. In this instance, a bill failing in the committee now serves as the base category (0). The next category was if the bill made it out of the committee, but was not passed by the full chamber (1). Bills that were passed by

12

<sup>&</sup>lt;sup>21</sup> The meaning of "sound money," in addition to the reasoning for the states and dates selected, are addressed earlier in this paper.

<sup>&</sup>lt;sup>22</sup> Or the single chamber, in the case of Nebraska.

one chamber (2) were classified separately from those were passed by both chambers of the legislature (3).<sup>23</sup>

Each of the models used the same four explanatory variables. Two of these variables look at political factors associated with each state's legislative bodies. The other variables were an attempt to measure the economic stability within a state.

The state legislatures were first described using a variable that measured party influence. The variable (labeled "Party Ratio" in future references) was created by adding the number of Republicans across both chambers and the number of Democrats across both chambers. Then the total number of Republicans was divided by the total number of Democrats. This resulted in a variable that ranged in value from 0.432 (majority Democratic) to 6.5 (heavily Republican).<sup>24</sup>

The second description of the legislative bodies is taken from the work of Boris Shor and Nolan McCarty. Shor and McCarty developed a measurement of legislative ideology. These measurements were explained in their 2010 article "The Ideological Mapping of American Legislatures." In this work, they explain how the Project Vote Smart National Political Awareness Test (NPAT)<sup>25</sup> was used as a "bridge" to compare the ideology of legislators across a variety of state legislatures. Roll call votes were also used to help fill possible gaps.

For this paper, the ideology score associated with a state's lower chamber was added to the ideology score of a state's upper chamber and then averaged

<sup>24</sup> Nebraska's non-partisan legislature is coded as 1 (Equivalent of an equal number of Republicans and Democrats).

13

<sup>&</sup>lt;sup>23</sup> Bills that were passed by the Nebraska legislature were coded "3"

<sup>&</sup>lt;sup>25</sup> Project Vote Smart now calls the NPAT the "National Political Courage Test".

("Legislative Ideology"). The lower numbers identify a more liberal chamber (lowest for this study was –0.934) and higher numbers were associated with a more conservative body (with a maximum of 1.13, for this study).

The measure of legislative makeup is relatively straight forward in nature, but it is the measure of a state's financially stability that is expected to provide the most interesting results. A state's financial stability was examined first by looking at the percentage of a state's pension plan that was fully funded. This data was based on information gathered by Bloomberg News. This information was collected from each state's Comprehensive Annual Financial Reports. The percentage that a state's pension plan was funded was then subtracted from the previous year's levels ("Pension Difference"). Negative numbers indicate a drop in pension funding. The greatest drop in our dataset was 16.3% and the greatest rise in pension funding was 19.3%.

The final variable examined bank failures within a state. The variable measured the number of banks that had failed within a given state from 2008 to the year that the legislation was introduced ("Bank Failure"). This data is based on the information collected by the website bankrate.com. Some states within the data set suffered no bank failures, but the largest number of bank failures during the period was 76 banks within a single state.

The method on analysis will vary with the nature of our dependent variable.

The first variable to be examined in this study is dichotomous in nature and,

therefore, a logit analysis will be used. This study also has an ordinal variable with

four categories. For this variable, ordered logit was used. When the study is altered

to examine only those data points where there was a bill introduced, there are not enough observations (26) to allow for examination with ordered logit. Research has indicated that using logit analysis on such a small dataset would create problems (Eliason 1993). In this instance, a simple correlation between variables was used instead.

After several attempts at quantitative analysis, there were no statistically significant results across several different models. This study begins with the standard logit model that examined whether or not a state legislature took action on a piece of legislation. The coefficients of the independent variables in this model range from – 0.0029 (Bank Failure) to 0.1134 (Legislative Ideology). None of these variables yielded results that were statistically significant.

<u>Table One – Introduction of a</u> <u>Legal Tender Bills (Logit Analysis)</u>					
Variable	Coefficient	SE	<i>P</i> <	N	126
Legislature	0.0361	0.1731	0.835	<i>Prob.</i> > <i>Chi</i> ^2	0.9943
Party Ratio					
Bank	-0.0029	0.0181	0.873	Pseudo R^2	0.0016
Failures					
Difference	0.0061	0.0398	0.879		
in Pension					
Legislature	0.1134	0.4293	0.790		
Ideology					
Constant	-1.1807	0.3866	0.002		
Dependent Variable - "Legal Tender" Bill Introduced (1) No "Legal Tender" Bill Introduced (0)					

Similar results (or lack thereof) were discovered when running an ordered logit model. None of the previously mentioned variables had a statistically

significant impact on the movement of a "sound money" bill on the steps toward legalization. The results were similar to the logit model, with "Legislative Ideology" having the largest coefficient and "Bank Failure" as the only variable with a negative coefficient. In the end, this makes very little difference in light of all four independent variables' statistical insignificance.

<u>Table Two – Legislative Action Taken</u> <u>on Legal Tender Bills (Ordered Logit Analysis)</u>

Variable	Coefficient	SE	<b>P</b> <	N	126
Legislature	0.0285	0.1688	0.866	<i>Prob.</i> > <i>Chi</i> ^2	0.9432
Party Ratio					
Bank	-0.0050	0.0179	0.778	Pseudo R^2	0.0037
Failures					
Difference	0.0034	0.0400	0.932		
in Pension					
Legislature	0.2961	0.4222	0.483		
Ideology					

Dependent Variable – No "Legal Tender" Bill Introduced (0) "Legal Tender" Bill Fails in Committee (1) "Legal Tender" Bill Leaves Committee (2) "Legal Tender" Bill passes both chambers (3)

The final examination was performed on only those legislative sessions in which a "sound money" bill was actually introduced. This resulted in a drop in observations down to 26. With this in mind the decision was made to examine the correlations between the previously mentioned variables and whether or not there was any legislative action on these bills. The correlations between these variables was extremely low. There was a 0.5335 correlation between the ideology of the legislature and whether legislative action was taken on the "sound money" bill. The next highest correlation was between the party ratio in the chamber and legislative

action (0.2295). The lowest correlations came from the variables that this paper was most interested in: "Bank Failure" (-0.0823) and "Pension Difference" (-0.598).

Table Three - Taking Legisltive Action On Legal Tender	<b>Bills</b>
(Legislative Sessions with Bills Introduced – Only)	

Variables	Correlation
Legislature Party Ratio	0.2295
Bank Failure	-0.1244
Difference in Pension	-0.0659
Legislature Ideology	0.5335

## REFERENCES

Andrei, Liviu C. 2011. "Fiat versus Representative Money under Debate, or How Right Keynes Was Once (!)." *Theoretical & Applied Economics* 18:5 (May 2011): 45-58.

Bernholz, Peter. 1989. "Currency Competition, Inflation, Gresham's Law and Exchange Rate." *Journal of Institutional and Theoretical Economics (JITE) / Zeitschrift für die gesamte Staatswissenschaft* 145:3 (September): 465-488.

Eliason, Scott R. 1993. *Maximum Likelihood Estimation: Logic and Practice*. Newbury Park, CA: SAGE Publications.

Greene, William. 2010. "Ending the Federal Reserve from the Bottom Up: Re-Introducing Competitive Currency by State Adherence to Article I, Section 10." Presented at the *Austrian Scholars Conference* at the Mises Institute (Auburn, AL: March 13, 2010).

Mises, Ludwig von. 1953. *The Theory of Money and Credit.* New Haven: Yale University Press.

Mundell, Robert. 1998. "Uses and Abuses of Gresham's Law in the History of Money." *Zagreb Journal of Economics* 2:2 (August): 3-38.

Patman, Wright. 1975. "Patman's Newsletter." *The Panola Watchman*, October 23, sec. A-6.

Pisani, Michael J., David W. Yoskowitz, and Jorge Brusa. 2008. "The Retail Travels Of The U.S. Greenback: A Comparative Study Of Currency Substitution Along The U.S.-Canadian And U.S.-Mexican Borders." *International Trade Journal* 22:3 (August): 250-289.

Rauch, Joe. 2009. "Georgians could pay future state taxes in gold." *Atlanta Business Chronicle*, March 6.

Shor, Boris, & McCarty, Nolan. 2011. "The ideological mapping of American legislatures." *American Political Science Review*, 105:03 (August): 530-551.

Siklos, Pierre L. 1995. *Great Inflations of the 20th Century: Theories, Policies, and Evidence.* Northampton, MA: Edward Elgar Publishing.

Vieira, Edwin Jr. 2005. "The State Electronic Gold Currency Plan, Part 1." *NewsWithViews.com*, April 20. http://www.newswithviews.com/Vieira/edwin8.htm.

Wells, Constance J. 2011. "Digital Currency Systems: Emerging B2B e-Commerce Alternative During Monetary Crisis in the United States." Master's Thesis, Aspen University (Denver, CO).

Westerfield, Ray B. 1921. "Federal Reserve Notes: Methods of Redemption and Retirement." Chapter 19 in *Banking Principles and Practice*. New York: Ronald Press Company.