MONEY TRICKS

Notes and Anecdotes for Economic Education

The following three anecdotes are taken from experiences in Bolivia during the years 1979 – 1982. These stories concern monetary phenomena and can be used to illustrate the effects of money on everyday economic life in a developing economy.

The first story is an illustration of Gresham's Law. Sir Thomas Gresham was born in 1519 and died in 1579. He was educated at Cambridge and, in 1551, he became the agent for the King of England in Antwerp. He negotiated royal loans with Flemish merchants, bought arms and military stores, and smuggled bullion into England. Upon the death of Queen Mary and the accession of Elizabeth, Gresham advised the new Queen to restore the previously debased money supply. It was following the great recoinage that Gresham is said to have pronounced his famous dictum; "bad money drives out good."[1]

Gresham observed that after the minting of new coins with full metal value that only the old worn coins were circulating, and the new coins were not appearing. In this case, the undervalued money was circulating and the full-valued money was being hoarded. Although this principle had been observed earlier (one author quoting Aristophanes as to this truth) Sir Thomas Gresham's name has been attached to this phenomenon until this day.

The usual cases of Gresham's Law concern two metallic standards circulating simultaneously, or a metal standard circulating with an inconvertible paper standard.

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[1] The New Palgrave, A Dictionary of Economics, Vol. 2, ed. Eatwell, Milgate, and Newman, The Macmillan Press Limited, London, 1988, p.564.

There is a case of an inconvertible paper standard exhibiting characteristics of Gresham's Law simply due to the wearing out of the paper money.

In the far-away year of 1979, I lived in the nation of Bolivia while working for a mission agency. The monetary unit in Bolivia was the Peso Boliviano. These pesos circulated mainly as paper notes with some metal coins. It was interesting to observe that the Thomas LaRue Company of London printed these notes. So the national government of Bolivia was buying its new currency from London. Due to the expense involved, the currency was made to serve the needs of commerce as long as possible. The result was that one could see some pretty sad looking currency. Some bills were terribly worn and held together with tape in several places. Some currency was so old that it looked as if it would tear apart with the slightest use. I was then made aware that occasionally a merchant would accept a worn bill only at a discount. This fact made Gresham's Law operative even among units of the same currency.

The logic of the situation is this: if a worker received a bad bill in the pay envelope, it was possible that a merchant might accept the bill only at a discount. For instance, an individual might try to spend a 10 peso note, and find that the merchant would give only 7 pesos credit for the note. So the person is faced with a situation of holding "bad" money. Now, when a person receives currency, she must go through the currency and select all the bad bills and try to spend them first, in the hope of receiving full credit for them. If she doesn't receive full credit, she can try another merchant. The "bad" money is spent first and so achieves a higher velocity of circulation than the good bills. This is Gresham's Law with inconvertible paper currency.

The second Bolivian monetary phenomenon that I experienced during 1979 was a devaluation of the peso. Bolivia had a pegged exchange rate against the U.S. dollar, and due to continued trade imbalances the government announced several weeks in advance that a devaluation of the peso was at hand. My salary was paid in dollars which were deposited monthly in an American bank. I would write checks on that bank and exchange that check for pesos. I don't remember the magnitude of the exchange rate or the size of the devaluation. However, I knew enough economics to know that if the peso was devalued I would receive many more pesos for each dollar that I exchanged. In effect, I would be rich!

The great day of the devaluation arrived, and truly, I received more pesos for each dollar that I exchanged. On the day of the devaluation another phenomenon occurred. The prices for all goods had risen at about the same percentage as the devaluation. My standard of living remained about the same. I was paying more pesos for all the goods. But what about the Bolivians? How were they to make ends meet?

It was here that I learned about the reality of weak governments and strong labor unions. Labor groups simply bargained for an appropriate percentage wage increase to meet the increase in prices. Teachers unions followed suit. Basically all workers followed suit and wages were moved up by about the same percentage as the increase in prices.

"Textbook" devaluations are not supposed to work like that. An official devaluation is done to weaken the nation's currency. This should make the nation's exports more attractive to the rest of the world, and make it more difficult for its citizens to buy imports. This action is taken to ameliorate trade deficit problems.

Economic theory indicates that the prices of exports and imports should rise with a devaluation. Americans receive more pesos for dollars, so Bolivian products should be more attractive to Americans. Increasing demand for Bolivian exports should cause the peso price of exports to rise. Bolivians receive fewer dollars for each peso, so American products become more expensive to Bolivians in terms of pesos.[2] However, economic theory suggests a gradual process, and certainly not a lock-step increase in purely domestic goods.

How did this immediate adjustment phenomenon occur? Bolivia is dependent on the rest of the world for imports of all kinds. The average city dweller is buying imports of all kinds. The citizenry knows by experience that this kind of devaluation will immediately make the price of all imports more expensive to them. In order to maintain standards of living, wage bargaining immediately begins. The prices of all goods at the retail level go up because of retailers' need to buy imports for their daily consumption and inventory requirements. Of course all this price movement requires a larger money supply. The government immediately accomodated the country's need for more money by increasing the money supply by an appropriate amount. The result was a general and almost automatic inflation in which standards of living and purchasing power remained about the same. The devaluation had almost no effect on reducing imports that I could see.

I have observed that weak governments respond in this way. They are not strong enough to stand against special interest groups and the threatened general strikes that could occur, which cause paralysis in the normal business operation of the country.

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[2] Dominick Salvatore, International Economics, 6th ed., (Upper Saddle River, New Jersey: Prentice-Hall, 1998), 533-536.

The third monetary note concerns the Bolivian hyperinflation of 1984-85. This case has been widely reported in the financial and academic press. Estimates of the inflation rate range from 35,000% to 116,000% per year.[3] It is unclear what the actual inflation rate was. I was in Bolivia in 1985 and saw businessmen struggling down the street with huge stacks of paper notes bound together by rubber bands trying to make a payment to the bank. I also had in my possession for many years a one million peso note which I proudly used to prove to everyone that I was a *bona fide* millionaire. It also cost about a million pesos to buy a cup of coffee at that time. So, in effect, everyone in Bolivia was a millionaire in 1984-85. This points up the fallacy of curing unemployment and investment problems by simply printing money.

Hyperinflations, such as the one in Bolivia, obviously can't happen without the monetary authority printing money at an enormous rate. The causes of this situation have been discussed in many other articles. However, let me add one more factor to the picture. The country was led by a weak president named Hernan Siles-Suazo who was a socialistic, labor-oriented president. The resulting scenario was that as inflation began to heat up, the public unions asked for even higher percentage wage increases. Public unions in Bolivia include miners and oil and gas workers. President Siles granted these requests without blinking an eye. The question was, how to pay for this increased public payroll from the Bolivian treasury. The answer was simply to print the money. This wage-demand, money-printing scenario continued for some time, along with many other factors which eventually resulted in the spectacular Bolivian hyperinflation of 1984-85.

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[3] Irvin B. Tucker, <u>Economics for Today</u>, 2nd ed., (Cincinnati, Ohio: South-Western College Publishing, 2000), 418-419. Rudiger Dornbusch, Fischer, Startz, <u>Macroeconomics</u>, 8th ed., (New York: McGraw-Hill, 2001), 428-429.