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Inflation and Other Risks of Unsound Money

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The Basics of Money

- A barter, or direct exchange economy is a subsistence economy. There is no need for money as goods & services are directly exchanged between two parties. This is not very efficient.
- A 'medium of exchange' is used for the indirect exchange of goods & services.
- The 'medium of exchange' is transferred from consumers to producers.
- Indirect exchange allows for specialisation and thereby enables societal benefits arising from the division of labour.
- Money is the commonly used medium of exchange in a society.
- The only function of money is a medium of exchange. People want to hold money in order to offer it in later acts of interpersonal exchange.
- In a free market, people will typically choose a medium of exchange that is durable and has limited supply.



The Basics of Money (cont)

- Unlike any other good, an increase in the supply of money is not beneficial to society.
- An increase in the supply of money lowers its price. It dilutes its purchasing power of the holders of money.
- In a free market, the holders of money are the people who have produced more than they have consumed.
- Increases in the supply of money can be seen as a form of property theft.
- The demand for money reflects how much people are willing to hold money in cash balances rather than spending it.
- For a given fixed supply of money, when there is high demand for money, prices of goods & services will tend to fall and when there is a low demand for money, prices of goods & services will tend to rise.



New Money Supply Distorts Monetary Calculation

- Monetary calculation (profit & loss) makes it possible to ascertain success and failure. Mises says it is *'the guiding star of action under the social system of division of labor'*
- Monetary calculation is the main vehicle used for planning and acting – the allocation of scarce resources and determining the best means to satisfy consumer ends.
- The supply of new money is often uneven and non-transparent.
- The new money doesn't affect all prices equally.
- Under a fiat money system, the government can simply print the money and use it for its transactions. The first recipients are those people that the government pays money. This money is then paid to other producers and eventually distributed throughout the economy.
- There is not an instantaneous and proportional rise in prices across all products and services.
- As relative prices are distorted, this must lead to a misallocation of resources.



The Definition of Inflation

- The Consumer Price Index (CPI) is a measure of inflation, but it is not itself inflation. Mises defines inflation as *'an increase in the quantity of money that is not offset by a corresponding increase in the need for money, so that a fall in the objective exchange value of money must occur'*.
- It is not possible to directly measure inflation as we can't directly measure people's changing need for money, but that doesn't invalidate the theoretical value of the definition.
- Inflation (increases in the money supply) also affects the prices of assets (property, equities, bonds etc).
- Sometimes inflation will have a greater impact on the prices of goods & services; and other times it will have a greater impact on the prices of assets.
- The consequences of distorted prices is that the monetary calculation becomes erroneous, meaning that scarce resources are poorly allocated. Fewer customer ends are satisfied.



The Money Supply is Rapidly Expanding

- In December 1971, Australia had a currency base of A\$1.48b. As at December 2012, this had grown to A\$53.8b – an increase of 36.4 times.
- Over the same period, M3 (which includes term and other deposits with banks) rose from A\$17.1b to A\$1,517b – an increase of 88.9 times.
- In the five years to December 2012, M3 rose by A\$532.7b (9.0% CAGR) – and this is during the GFC!
- Over the past 20 years, the money supply has increased by 9.6% pa, but the CPI has only increased by 2.7% pa. The CPI may understate the overall increases in goods & services, but it does seem that a significant portion of the increase in the money supply has found its way into asset prices.



How the Money Supply Expands

- The government controls the medium of exchange – government fiat paper money
- Government deficits that are not funded by selling bonds to the public, but instead are financed by the banking sector (including the central bank) add to the money supply
- Fractional reserve banking
 - It is possible for claims on money (ie. bank deposits) to pass between people without any claim being made to enforce the right to the money.
 - A bank can issue obligations in excess of the amount of money it holds, as long as it takes sufficient precaution that it can satisfy those claims that are made for redemption of bank notes into money.
- Banks act as money producers when they grant credit through the issue of fiduciary media (ie. notes and bank balances that are not covered by money).



How the Money Supply Expands (cont)

- The provision of credit through fiduciary media can only be made by banks as sufficient scale is required if depositors are to remain confident that they can access their money when required.
- The issuance of fiduciary media is a lucrative source of revenue for the issuer. It is in the interests of the banks to maximise the issue of fiduciary media to the extent that it doesn't negatively impact the confidence of its note holders and depositors.
- Central banks and governments play a significant role in encouraging fractional-reserve banking.
- The central bank in its role as 'lender of last resort' provides liquidity support to a bank in the scenario of a bank run.
- Government regulation of banks plays a role in maintaining confidence in the ability of banks to repay note holders and depositors, especially when the government provides a deposit protection guarantee scheme.



Consumer Price Index Risk

- Inflation – defined as increases in the supply of money – is reflected both in changes in the prices of goods & services, and as changes in asset prices. It is not possible to determine exactly where the increases in the money supply will be reflected.
- Since 1971, Australia has experienced a substantial increase in the money supply. The CPI has increased by 5.7% pa, compared to a growth in M3 of 11.6% pa.
- To date, a significant component of the increase in the money supply has found its way into asset prices. This may reverse in the future.
- In the future people may come to the realisation that nominal assets will suffer a significant decline in (real) value due to the excessive growth in money supply. In this scenario, individuals would exchange nominal assets for goods & services, thereby pushing up the prices of consumer goods & services.



Wage Rate Risk

- Australian wage rates are relatively high when compared to other countries.
- In an unhampered market, this would suggest that the marginal productivity of Australian workers is relatively high due to a high level of capital investment in skill development and equipment.
- It could, however, also be reflective of excessive consumption driven by malinvestment due to Australia's high money supply growth over the past 20-40 years.
- If this is the case, Australian society will be eventually worse off due to malinvestment and the risk is for wages to suffer in real terms as these malinvestments are realised and worked through.
- Credit expansion doesn't add to the nation's wealth of capital goods. Rising prices from credit expansion helps push up nominal wages, but depresses real wages. Just ask anyone under 30 years of age who is looking to buy a house!



Asset Price Risk

- Inflation (increases in the money supply) generates forces that tend towards capital consumption over capital accumulation.
- As inflation understates the cost of depreciation, it falsifies economic calculation and accounting. It produces the phenomenon of '*imaginary or apparent profits*'.
- Increases in the money supply may be reflected in increased nominal company profits.
- As these distortions arising from the increased money supply are not able to be quantified, the risk environment is significantly raised.
- The existence of illusionary profits and distorted interest rates (from central bank intervention) makes accurate asset valuations nearly impossible.
- In an inflationary environment there is a heightened risk for nominal assets.



Currency Debasement Risk

- Mises argues *‘the recurrence of periods of boom which are followed by periods of depression, is the unavoidable outcomes of the attempts, repeated again and again, to lower the gross market of interest by means of credit expansion’*.
- He adds *‘There is no means of avoiding the final collapse of a boom bought about by credit expansion. The alternative is only whether the crisis should come sooner as the result of a voluntary abandonment of further credit expansion, or later as a final and total catastrophe of the currency system involved’*.
- A final collapse of the paper money system involves the public losing faith in the value of money. The demand for money collapses. Those holding nominal assets, such as government bonds suffer large losses in real terms.
- Real assets are also at increased risk, including the risk of expropriation by government – either directly or through taxation.



Implications for Actuarial Assumptions

- Actuaries should be aware that a 'risk-free' government bond refers to a state's future taxing capacity and/or its ability to repay though monetising its debt through an increase in the money supply. Government debt holdings are exposed to significant declines in real returns for domestic investors and exposed to foreign exchange risk for international investors.
- Actuaries should be aware that the CPI is only a measure of inflation. Instead, actuaries should focus on how changes in the money supply affect the key assumptions, including those of asset market returns and wage rate forecasts.
- Actuaries should be aware that the current government fiat money system is 'unsound' and that Austrian economic theory shows us that the unsound money system is facing a final and total catastrophe. In particular, this has significant implications for those individuals and organisations that have nominal assets and real liabilities.



Other discussion points

- What are the possible 'sound' money alternatives – gold, silver, bitcoin?
- We live in a democratic country. If a commodity based money was so good, why don't we already have one?
- What would a collapse of the currency look like in a world when every major country has a paper currency?
- What assets would perform best in a collapse of the currency?
- Is the gold price effectively an option on gold becoming money again in the future? If so, what probability of this occurring is currently priced into gold?
- If gold companies trade at a NPV premium because gold may become money in the future, why do gold companies currently sell their gold production in exchange for paper money?
- Is savings for chumps?