AAS Economics
From Money Supply to Markets

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THE AAS ECONOMICS FRAMEWORK

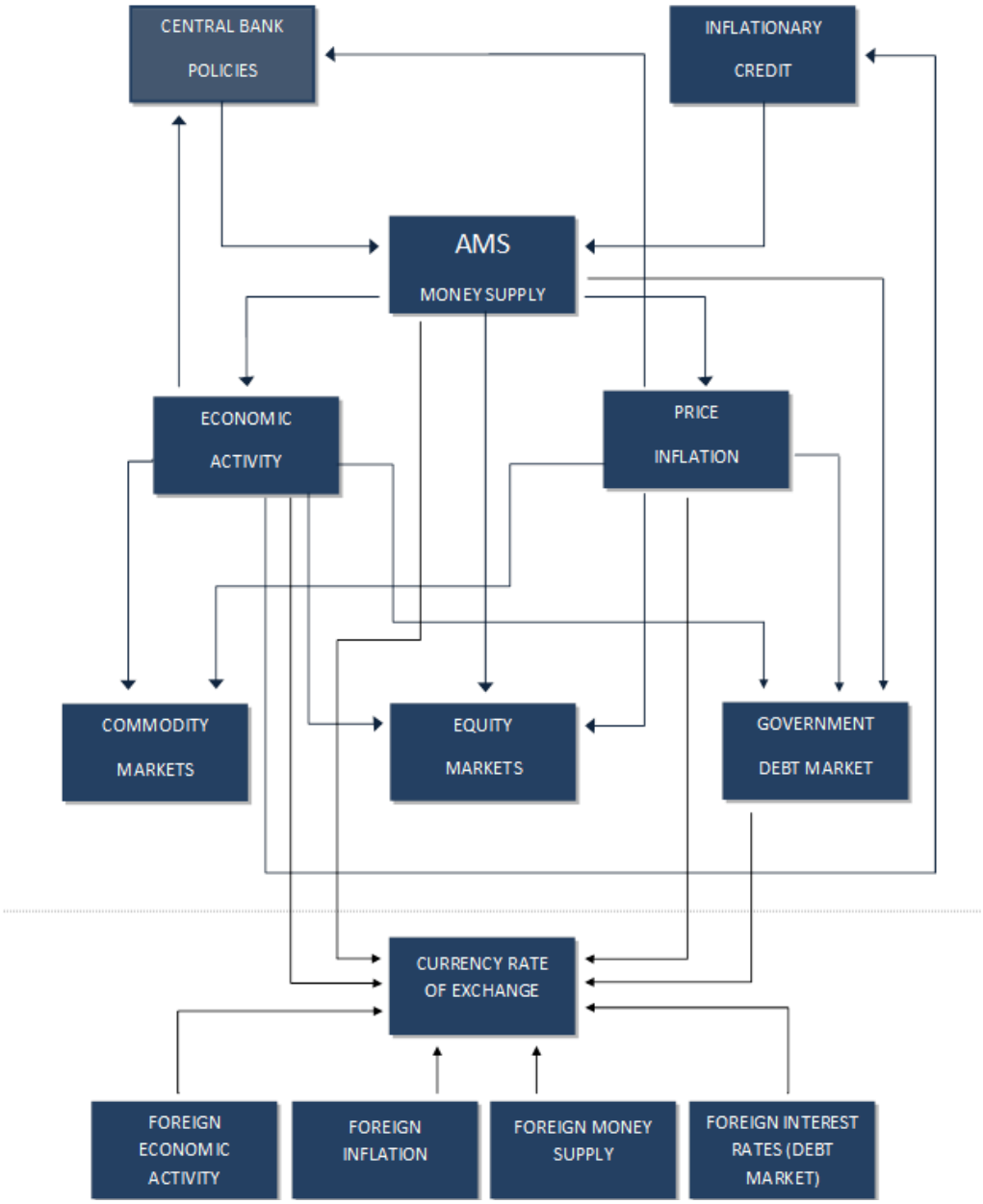
Summary

- In the AAS Economics (AASE) framework **production precedes consumption** and thus the focus should be on the former rather than the latter, with decisions of individual economic actors, especially as producers, being paramount. **Demand is a consequence of producers producing more than they require for subsistence** and, via spending part of their surplus production, acquiring the output of other producers via exchange in the market.
- **Economic growth is a result of productivity growth. Productivity growth requires investment which in turn requires saving from current consumption.**
- **Money functions as a medium of exchange – *only* as a medium of exchange** – between goods and services which could otherwise be exchanged via barter.
- **With central and commercial banking the core function of money as a medium of exchange is distorted through artificial changes in (paper) money supply growth** above or below that which a commodity-based monetary system (e.g. based on gold) would deliver.
- **Central banks create (paper) money directly and private sector banks do this via fractional reserve lending** i.e. taking money from client demand deposits and lending multiples of it to other clients.
- **Increases in bank-created paper money set in place severe economic distortions**, whereby new businesses or activities arise or existing activities expand at a faster rate than would have occurred in the absence of this new money creation. These **new or expanded activities are "bubble" activities** which are reliant on the continuation of the distortionary money creation of the banking system.
- **Different actors receive the newly created money earlier or later** and this creates different performance and growth rates in different areas of the economy.
- **Bubble activities multiply** as the money creation process continues and **this appears as an increase in apparent general economic activity**. In reality this is a process of real wealth destruction.
- **Costs rise faster in some sectors than others** and this increases costs in some businesses without the ability to raise prices. This squeezes businesses in some sectors, with a resultant decline in activity, **and can also create systemic increases in price levels**.
- **Banks reduce credit supply to struggling businesses which in turn reduce their demand for the output of supplier businesses**. Faltering businesses increase in

number and **a negative feedback loop ensues** whereby growing business weakness leads to an extension of **credit rationing by banks**.

- **Due to the increased price level central banks may also act by reducing money supply growth** e.g. through open market operations.
- This combination of factors **turns an artificially created boom into an equally artificially created bust**.
- **By properly measuring money supply and by using the lags between monetary growth and economic activity it is possible to predict the cycle itself and also the performance of various assets and sectors within the economy**.
- The best solution to the overall problem of business cycles is a return to some form of commodity-related money such as gold.

The AAS Economics Macroeconometric Model



Question (Q): What is the difference between the AAS Economics paradigm and that of mainstream economics?

A: In the AASE framework the emphasis is on individual human beings rather than on the notion of an independent macro economy. Moreover, in conventional thinking the key driver of economic growth is an increase in consumer spending. This is based on the observation that consumption comprises almost 70% of overall expenditure in the economy, where overall expenditure consists of government outlays, investments and consumer outlays plus exports minus imports.

Q: How does the AASE approach differ?

A: Our central view is that what matters for economic growth is the ability to produce goods and services. We also hold that there is no independent entity called "the consumer". In order to consume one must first produce something of utility that can be exchanged for some other useful thing. But this exchange will only take place when producers have produced more than they need for their consumption – i.e. their subsistence.

> "For AAS Economics the central driver of economic activity is production. Production precedes consumption and consumption is itself a product of output exceeding subsistence. Without this surplus output there can be no demand for other entities' output. Economic growth derives from productivity growth, which itself is a product of investment driven by savings."

Demand for a producer's output can therefore only arise once other producers have a surplus which they can exchange for this producer's product. Hence within the AASE framework the mere fact that somebody has produced something in a quantity exceeding his own subsistence needs implies that he has set in motion a process leading to demand for others' goods and services. This means that demand doesn't stand on its own – it is derivative of production.

Q: How then does economic growth emerge?

A: Productivity growth is the key to economic growth. Investment in productivity-enhancing machinery and equipment is the driver of this productivity growth. In the AAS Economics framework saving is the life force driving investment and therefore savings are the key to economic growth. Savings, in turn, are the residual after production and consumption. Production must be large enough to provide the surplus that can then be invested.

Q: What is "real wealth" and how important is it in the AASE framework?

The pool of wealth is the quantity of final goods available in an economy to support future production. It is a 'stock' concept rather than a 'flow' concept and its level is difficult – indeed impossible – to measure in the current national accounts framework. Nonetheless it is of vital significance as a limiting factor in determining the extent to which manipulations of the money supply can be effective in stimulating the next boom. Each time a credit-driven cycle occurs there is an impact on the pool of real wealth, both positive and negative. Both monetary expansion and contraction can create and destroy real wealth by affecting its growth rate. The longer, more extensive and more severe the cycles of monetary creation and destruction the greater the likelihood that real wealth will be destroyed – i.e. its growth rate will turn negative. It is important to note in this context that economic downturns may in fact help rebuild the pool of real wealth over time by eliminating bubble activities and facilitating the growth of non-bubble activities where consumption and investment are funded by production and savings. If the stock of real wealth in an economy is severely depleted then even aggressive money creation can have limited impact on stimulating measured economic activity. Indeed, the inability of central bank pump-priming to kick-start economic growth is *prima facie* evidence of severe damage to the pool of wealth.

"Economic growth derives from productivity growth, which itself is a product of investment driven by savings."

Q: Where does money enter into the production and exchange process?

A: In the AASE framework money is simply a medium of exchange. A producer produces something useful and then exchanges it for money. He then exchanges money for other useful things. This means that in the AASE framework money just facilitates the exchange of goods and services. Individuals still have to produce things in order to acquire other things. Money just makes this entire process much easier. Note that when a producer exchanges his produce for money and then money for other produced goods he doesn't take from the pool of produced goods, i.e. the pool of real wealth, without giving something useful in return - hence something is exchanged for something (with money just facilitating this process).

Q: In what circumstances can an increase in money supply negatively affect the economy?

A: An increase in the money supply– i.e. an increase in paper money – sets in motion an exchange of nothing for something. This can occur via two sources: the central bank and the private sector banks. Let us say that a central bank has printed $100 and exchanged those dollars for some good or service. The central bank did not secure the $100 by producing something useful – rather it obtained the $100 out of "thin air". Hence the central bank is

exchanging nothing for something. This means that the central bank now takes from the pool of real wealth without contributing anything in return.

Q: How do private sector banks create money?

A: At any point in time an individual can hold his money either in a pocket or under a mattress or in a safe deposit box. The money kept in the safe deposit box is labeled as money kept in a demand deposit. An individual, the owner of the money, has an unlimited claim on it. Let us say that individual X has placed $1,000 in demand deposits with Bank A. Let us say that Bank A was approached by individual Y who wished to borrow $500. The bank then takes $500 from X's demand deposit. It is like opening his safe deposit box without his consent.

By lending the $500 to Y, Bank A places the $500 in Y's demand deposit. We now have here a new unlimited claim on $500. Overall we now have unlimited claims on $1,500, which are backed by only $1,000 of original money. The extra $500 is newly created money out of "thin air". Note that both X and Y can now use a total of $1,500 for spending. Also note that X never agreed to lend or temporarily relinquish his claim over $500.

Q: What is wrong with this credit creation by the banks?

A: As with the central bank example, the newly created money sets in motion an exchange of nothing for something, which implies the diversion of real wealth from wealth generators towards the holders of the newly created money. It also sets in motion the problem of the boom-bust cycle.

> "Money serves the purpose of a medium of exchange. Artificial increases and reductions in the growth rate of paper money – by central and private sector banks – distort price signals and create economic bubbles and crises."

Q: How does an increase in bank-produced money generate boom-bust cycles?

A: As a result of this newly created money there is now an increase in the demand for goods and services. The individuals who hold the new money and then exchange it are setting in motion an exchange of nothing for something. In a barter economy (i.e. when exchange is of goods and services for goods and services) an exchange of nothing for something is highly unlikely if not impossible. In the money economy, when the exchange is indirect (i.e. goods are exchanged for money and money exchanged for goods) this is quite possible. Note that if the pool of real wealth is expanding the increase in the money supply will appear to be associated with the increase in the overall demand for goods and services. This gives the misleading impression that the increase in money supply *causes* the increase in the overall demand for goods.

Q: So this means that an increase in bank-produced money cannot grow an economy?

A: On the contrary it will divert real wealth from wealth generators and undermine its production. As mentioned, if the pool of real wealth is expanding (via increases in savings-induced productive investment) then the increase in the demand for goods and services is misleadingly attributed to the increase in money supply, whereas in fact it is on account of the increase in the pool of real wealth. The increase in the money supply here alters the composition of demand. Demand emanating from true wealth generators comes under pressure whilst demand from the holders of newly printed money expands. As long as the pool of real wealth is expanding the money printing can generate the illusion that it generates economic prosperity, also called an economic boom.

Q: What is actually happening when bank-produced money supply is increasing?

A: In reality what is emerging is the consumption of real wealth. The ongoing money printing ultimately starts to manifest through an increase in the prices of goods and services and pressure on some companies' profit
margins.

> "Newly created money by central and private sector banks reaches different individuals and businesses at different times. This creates artificial advantages for some sectors and artificial disadvantages (especially through cost pressures) for other sectors."

Q: Why is that so?

A: When new money enters a particular market it means that there is now more money per good in that market. Since the price of a good in a market is the amount of money per good in that market the overall prices of goods in this market now increases. As money enters other markets the prices of goods in these markets follow suit. The increase in money doesn't spread instantly to every individual in an economy. There are early recipients of money, later recipients and then those who don't receive it at all. The money moves from recipient to recipient and to other markets, etc. There are time lags as new money moves from market to market and some businesses are confronted with rising costs while the prices of their products are still unchanged. This leads to pressure on profit margins in some industries while others appear to be doing well – there are sector winners and losers as well as individual winners and losers. The banks are typically lending strongly to the "winners" but this process eventually runs into hurdles.

Q: What undermines the boom?

A: As a result of a decline in profit margins in some companies – due to rising cost pressures not met by rising demand – the banks begin to reduce their credit expansion to those companies. Those activities that sprang up based on the higher money supply growth must now reduce their

demand for goods and services. Remember that these activities – essentially bubble activities – rely on the maintenance of rapid money printing which diverts real wealth to them from genuine wealth generators. These companies and bubble activities must now contract, and with it their demand for the output of other companies and industries. This extends the contraction and constitutes the phenomenon popularly known as an economic bust. If the pool of real wealth is stagnating or declining then the aggregate demand for goods will follow suit.

Q: Could central bank policies also set in motion an economic bust?

A: The central bank can also trigger an economic downturn – by slowing the rate of money supply injection. The contractionary path is essentially the same as that described above. Those activities which had come to rely on the maintenance of increased money supply – especially those who were late to the party and therefore whose businesses were more vulnerable to small environmental changes – begin to suffer declining profits or they fail to perform as their lending banks had assumed. This leads to their contraction and to reduction in loan growth (and sometimes to bank demands for increased collateral) which can trigger further squeezes on profits and projections. As above, this process spreads more widely through the economy depending on the extent of the prior money-induced resource misallocations and distortions. The bigger the bubble, the greater the bust.

> "As some sectors boom banks lend them more money out of thin air. As others are disadvantaged bank credit to them is rationed. The entire industrial structure is distorted and the combination of price pressures in some industries and declining profitability in others becomes widespread and destructive."

Q: What is the relationship between the pool of real wealth and the economic cycle?

A: As the pace of money creation increases this strengthens the exchange of nothing for something i.e. increasingly weakens the growth rate of production of real wealth. As the bubble bursts this slows down the diversion of real wealth from wealth generators towards bubble activities. As a result, as time goes by various individuals that were employed in bubble activities lose their jobs and suffer an erosion in their earnings. Consequently, at least in early stages, the overall demand for goods and services – i.e. aggregate demand growth – will come under pressure, *ceteris paribus*. In response to this the banks are likely to reduce their expansion of credit out of "thin air". This in turn weakens money supply growth which in turn further undermines various bubble activities, further deepening the economic slowdown. Note that a decline in money supply growth is actually good news for wealth generators since the pace of

wealth diversion now declines. As a result this enables wealth generators to rebuild themselves and regenerate, so to speak, the process of real wealth production, thereby laying the foundation for future increases in the pace of economic growth. The expansion in real wealth provides the opportunity for those who had lost their jobs to find employment in the revitalised wealth generating activities. This, in turn, is likely to be associated with a strengthening in the growth rate of aggregate demand. As a reminder, in the AASE framework demand follows supply rather than *vice versa*.

Q: So fluctuations in the growth rate of money supply can be indicative of the pace of wealth destruction?

A: Yes. For instance, an increase in the money growth rate is indicative of an increase in the pace of real wealth destruction as it increases the prevalence of bubble activities and the exchange of artificially created goods and services for real wealth. Conversely, a decline in the money supply growth rate is indicative of a slower pace of wealth destruction.

Q: Now increases in bank-created money supply, whether at a faster or a slower pace, undermine the pace of wealth formation. You said that the key for economic growth is increases in the pool of real wealth – how then does a strong increase in the money supply result in a strengthening of economic activity?

A: This can be achieved by a more intensive use of existing infrastructure and labor. However this cannot be sustained – there are limits to how far existing capacity can be stretched without new investment. To achieve an ever rising pace of economic growth it is necessary that the pool of real wealth (which, as described earlier, encompasses the savings required to fund investment) expands at a faster pace. But the increase in growth of the money supply sets the dynamics for a decline in the growth rate of real wealth. This in turn slows the growth rate in money supply and sets in motion an economic bust. Hence the boom inexorably sows the seeds of a bust.

Q: So it seems that the key drivers of boom-bust cycles are fluctuations in the money supply growth rate engineered by the central and commercial banks. What about interest rates – what role do they play?

A: Whenever the central bank lowers interest rates it distorts price signals. As a result businesses are channeling (diverting) real wealth to fund various activities that normally would not be funded in an unhampered market economy. Note that a lowering of interest rates goes hand in hand with an increase in bank lending and hence an increase in the money supply growth rate. In most cases the central banks will engineer the change in interest rates via open market

operations that directly impact the money supply.

> "A lowering of central bank interest rates – often through enforced changes in the money supply via open market operations – simply adds to the distortion of market signals. If real wealth is not rising, or is declining, then this can be ineffective in stimulating the bubble activities popularly deemed to be the drivers of economic growth. "

Q: Could a situation emerge whereby a lowering of interest rates does not significantly boost bank lending and the money supply growth rate?

A: Yes, this could occur if the growth rate of the pool of real wealth comes under severe pressure and, as a result, stagnates or, worse, declines. Note that an expanding pool of real wealth is the key for economic growth. Once the pool comes under pressure the profitability of various businesses follow suit. Consequently, banks curtail their lending. As a result, the money supply growth rate will also come under pressure, all other things being equal. An economic upturn will not emerge in this case.

Q: What is AASE's position in relation to the argument that the Great Depression of the 1930's occurred because the US central bank failed to pump enough money to prevent the contraction?

A: AASE holds that due to the prior loose monetary stance of the central bank the pool of real wealth was badly damaged. This is the factor that caused the collapse in bank lending and the collapse in the money supply growth rate. Note again that, as outlined above, money as such cannot grow an economy, but it can destroy it. So once the central bank's policies weaken the pool of real wealth obviously more of the same policies cannot make things better – on the contrary it only makes things much worse. If the central banks could indeed produce genuine economic growth through monetary pumping then by now most countries in the world would not have experienced economic recessions and economic hardship over multiple generations.

Q: Given the importance of changes in money supply growth in creating boom-bust cycles, how can one apply this knowledge in investment decision-making?

A: We at AASE hold that by using monetary growth as a leading indicator one can ascertain likely fluctuations in economic activity in the months ahead. Note that changes in money supply today will have an effect on various markets, and economic activity in general, at some time in the future. Hence, from a money supply perspective, already-known information about the money growth rate provides us with leading information about the future economic climate.

This in turn can be used in the asset allocation process and in various investment timing decisions. For instance, if, based on past money supply growth, we forecast that economic

activity will fall at a rapid pace, then more investment funds should be allocated towards defensive stocks and government bonds and cash and less in commodities and non-cyclical stocks. It is important, however, to correctly define the money supply.

> "Given the differential rate of diffusion of changes in money growth through the economy, different assets and sectors will perform differently in different stages of the cycle. If one can predict the cycle then one can in principle predict the performance of various assets and sectors."

Q: How should "money supply growth" be measured?

A: At AASE we have constructed what we call an adjusted Money Supply or AMS. This captures those features of the monetary aggregates which reflect money's true nature as a medium of exchange – i.e. cash plus immediate depository claims with banks. AMS seeks to eliminate double counting in money supply data that typify conventional measures of money supply. For example, we exclude from the AMS various forms of credit transactions. Note that lending (a credit transaction) does not alter the stock of money – it only changes its ownership. The result is a money supply measure which has proven to be a robust predictor of economic variables over many years and which forms the core of econometric modelling used for economic and financial market prediction.

> "A central tenet of AAS Economics' approach to economic analysis is the correct definition of money, based as it is on cash plus immediate claims on the banking system. Many conventional definitions of money involve double-counting, have lost their utility and are misleading as predictors of the cycle."

Q: So what is the best monetary system according to AASE?

A: We hold that money fully backed by gold is the proper system. It will eliminate the wild boom bust cycles associated with the present paper money system. Note that in essence we subscribe

to any commodity-based money. Over time people have chosen gold as their preferred commodity to be used as money.

Q: On a gold standard could we still have fluctuations in the money supply growth rate due to fluctuations in the amount of gold? Could this consequently result in boom-bust cycles and could it be the case that there might be insufficient gold to match the demand for money expanding on account of economic growth and that this itself could choke off economic growth?

A: Gold as such cannot be created out of "thin air". It must be mined and it is part of real wealth. So when a gold miner exchanges gold for other goods he exchanges something for something. In our framework, as long as this is the case no boom-bust cycles will emerge. We have seen that it is not fluctuations in money supply growth as such that set in motion boom-bust cycles but rather *fluctuations in the growth rate of the supply of money created by central and commercial banks out of "thin air"*. Again, on the gold standard no one creates gold out of "thin air" and hence no boom-bust cycles in this sense are going to occur.

We at AASE are of the view that any given amount of money is sufficient to fulfill the role of the medium of the exchange. Note that people want more purchasing power of their money not more money as such. With an increase in wealth for a given money supply its purchasing power will increase.

In the present paper system an increase in money supply growth in response to an increase in the demand for money will not prevent economic cycles. Rather it will set in motion an exchange of nothing for something and significant misallocations of resources at both the macro and micro levels.

"For AAS Economics the most rational monetary system is a commodity-backed system such as one based on or backed by gold. Such a system is unlikely to be manipulated in the manner of paper money as its supply will be determined by its own productive dynamics rather than by the destructive machinations of central and commercial banks. "

Q: What is the view of AASE on statistical correlations?

A: We regard correlations as useful means to form a preliminary view regarding the relationship among various variables. For example, if we observe a change in money supply growth based on our framework we can deduce a corresponding change in economic activity in the months ahead. Or if we observe that over time the growth rate in money supply in country A exceeds that in country B then we can determine that, from this perspective, the exchange rate of A versus B

must come under pressure. If we observe a fall in correlation between two variables we do not change our framework but rather try to find out the reason for the decline in the correlation. It is quite possible that the effect of a fundamental core variable is now obscured by that of a large, irregular, non-core variable.