

The Money Gap – A General Rationale

If there is less money in the economy than there should be, there will be less spending than there should be. If maximal, sustainable, long-term output growth is desired, ensuring that the rate of money growth required for it is extant is essential.

How do we know what *should be* the desired money growth?

Given that changes we may effect in **broad money growth** (to hyperlink to <https://www.youtube.com/watch?v=jBvwkXs45go&list=PLudZPVEs3S82iu2zb-QZfcK7pqrHfPgO&index=2&t=14s>) may have real impacts on nominal spending, how do we know what rate of production we should aim for? This is where we must deal with the notion of **Sustainable Output**.

Sustainable output is that amount of goods and services produced extant when the economy is producing with no inflation over the long-term. If we acknowledge a **long-term relationship between money growth and nominal spending** (to hyperlink to <https://mv-pt.org/2019/01/24/our-research/>), then it would follow that there exists a quantity of money in circulation required for sustainable output to be achieved.

Now if there is a rate of money growth required for sustainable output growth to be extant, the difference between actual money growth and that money growth consistent with desired output growth is the **Money Gap**.

How can we measure that desired rate of money growth, and hence, the money gap? By making use of a **monetary rule** (to hyperlink to <https://www.youtube.com/watch?v=2fnQRmjNI30&list=PLudZPVEs3S82iu2zb-QZfcK7pqrHfPgO&index=12>)

How do we measure this desired output growth that we take as an aim?

A monetary rule makes use of some variant of the classic [Quantity Theory of Money](#).

Retooling the equation allows us derive a rate of money growth compatible with the economy producing at the equilibrium rate and long-term price stability:

The Monetary Rule

$$\Delta Md = \Delta P + \Delta RGDPd - \Delta Ve$$

Where,

ΔMd = Money Growth Compatible with Sustainable
Output Growth

ΔVe = Expected Change in Velocity of Circulation

ΔP = Price Stability Rate of Inflation

$\Delta RGDPd$ = Sustainable Real GDP Growth

The Money Gap

$$Mg = \Delta M - \Delta Md$$

Where,

Mg = Money Gap

ΔM = Actual Money Growth

ΔMd = Prescribed Money Growth

How can we know the extent to which actual money growth departs from the desired rate?

We should also note the consequences of departing from our aim too severely, and for too great a length of time. If there occurs a sustained money gap with positive values above 0.5% to 1% (i.e. a sustained positive money gap, given $\pm 0.5 - 1\%$ as margin of error), this indicates excessive money growth that must inevitably manifest in unsustainable output growth and inflation with a time lag. If there occurs a sustained money gap with negative values below -0.5% to -1%, this indicates too little money growth that must manifest in a decrease in inflation and even deflation and output below trend. Examples of both forms of money gap are illustrated in the diagram below.

(to add chart with UK quarterly money gap, 2011 – 2019)

In summary, if we take as our aim the instantiation of a rate of output growth consistent with price stability, and we acknowledge the long-term relationship between money growth and nominal spending growth, then the sustained minimization of the money gap is an essential means to this end. Both theoretical¹ and [empirical analysis](#) has established the long-term relationship between broad money growth and nominal spending growth, and while a general statement concerning the dangers of unsustainable excesses in money growth may be valid, there is still left the question of 'what counts as excessive? The money gap goes some ways to addressing this issue by way of providing a benchmark² with which to compare actual rates

¹ See Tim Congdon's *Money and Prices in Boom and Bust*. IEA, London. See <https://iea.org.uk/publications/research/money-and-asset-prices-in-boom-and-bust>

² See Pedro Schwartz and Juan Castaneda's report to the European Parliament for an application of this concept. See <http://www.europarl.europa.eu/document/activities/cont/200712/20071220ATT16955/20071220ATT16955EN.pdf>

of money growth, and hence providing a more precise account of the difference between actual money growth and the prescribed rate.