

# Two Different Views On Monetary Policy Impact: The New Consensus and Post-Keynesian Economics

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**Abstract.** *The objective of this study is to make a synthesis of the differences between two new macroeconomic views. A New Consensus has arisen among neoclassical and New-Keynesian economists, such as Romer, Taylor and Walsh. This new view seeks to redefine the application of monetary policy by re-specifying the most appropriate monetary rule, which is used for inflation targeting. The framework of the monetary policy impact requires the usage of a expectations augmented Phillips curve, characterized through the lack of trade-off inflation-unemployment in the long-run. Post-keynesian macroeconomic critical, whose promoters are Arestis, Lavoie and Satterfield, argues that for most of the production levels obtained output change has no effect on inflation. This is a re-formulation of the Keynesian aggregate supply curve, which is entirely horizontal.*

**Key words:** New Consensus macroeconomic; monetary policy rule; Phillips curve; potential GDP; post-Keynesian

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## The “New Consensus macroeconomics”

According to the New Consensus, long-term inflation is the result of excess aggregate demand. Supply shocks are random, and their average tends to zero, so that they will have a lasting impact on inflation. In the short term there is a trade-off between inflation and unemployment, but will disappear in the long run, in a neutral monetary policy. This can be illustrated by the Phillips curve equation:

$$\Delta\Pi = \alpha_1\Delta Y + \varepsilon_1,$$

Where:  $\Delta\Pi$  – difference between the actual inflation rate and its expectation level;

$\Delta Y$  – output-gap;

$\alpha_1 > 0$ ;  $\varepsilon_1$  – non-recurrent inflation shock

If there is an output above potential ( $\Delta Y > 0$ ), inflation will accelerate, and otherwise it will generate a decrease of the inflation.

Like Friedman, supporters of the New Consensus believes that monetary policy can influence the real economy in the short term issue reflected by the IS curve. According to this, investment and production capacity are inversely correlated with changes in real interest rate (Lavoie and Kriesler, 2005).

$$Y_a = Y_0 - \alpha_2 i_R.$$

Where:  $Y_a$  – current output;

$Y_0$  – autonomous components of output;

$i_R$  – real interest rate.

To target an optimal inflation rate, were proposed two types of the monetary rules. Friedman proposed the adoption of a rule based by optimal money supply growth. In contrast, for New Consensus economists the interest rate is effective tool in achieving the inflation target. The Central Bank establishes an interest rate for guiding monetary policy, which will influence the monetary supply in economy. This is a nominal variable that affect the real interest rate through anticipated inflation. For representing the monetary policy rule (MPR) in the case of a central bank with inflation targeting strategy, I will consider IS curve, the reference interest rate and short-run, long-run Phillips curves ( $PC_s$ ,  $PC_l$ ) such in model described by Carlin and Soskice (2005).

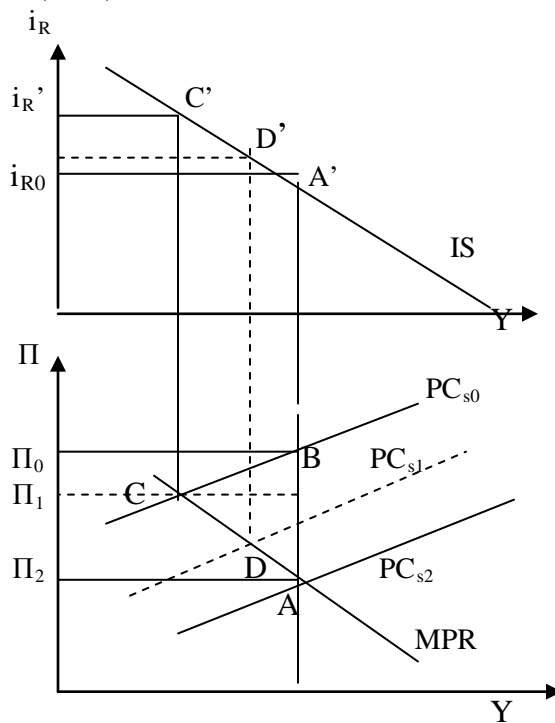


Figure 1. Monetary policy rule of the central bank

According to figure 1, it can be supposed that Central Bank aim to reducing inflation from  $\Pi_2$  to  $\Pi_0$ . Initially the economy produces at potential GDP (point B), which corresponds to equilibrium real interest rate ( $i_{R0}$ ) from IS curve. To reduce inflation the central bank will increase the benchmark interest rate, which will directly influence the real interest rate. Economy will face short-term trade-off between inflation and unemployment, shown by Phillips Curve on short term ( $PC_s$ ). The decrease of the inflation rate at level  $\Pi_1$  leads to lower aggregate demand and a lower GDP, corresponding to point C. Thus, it registers a recessionary gap which will reduce the inflationary expectations in the economy and the short-term Phillips curve become  $PC_{s1}$ . The registered disinflation leads to decrease of the monetary policy interest rate, the economy moving along IS curve from point C' to A', along a line called monetary rule (MPR), from C to A. This line shows the output level chosen by a central bank, given the Phillips curve constraint that it faces. To achieve this, a central bank sets the interest rate instrument, according to IS curve.

The monetary policy rule shows central bank's reactions in context of output-gap or inflation rate deviation from its target. For look into this rule, may be use a model with three equations, which represent a synthesis of New Consensus' approach (McCallum, 2001):

- $\Delta Y_t = a_0 + a_1 \Delta Y_{t-1} + a_2 \Delta Y_{t-1}^a - a_3(i_t - \Pi_{t+1}^a) + s_1$
- $\Pi_t = b_1 \Delta Y_t + b_2 \Pi_{t-1} + b_3 \Pi_{t+1}^a + s_2$  (unde  $b_2 + b_3 = 1$ )
- $i_t = i_R^* + \Pi_{t+1}^a + c_1 \Delta Y_{t-1} + c_2 (\Pi_{t-1} - \Pi^T)$ .

Where,  $\Delta Y$  – output-gap;  $i$  – nominal interest rate;  $i_R^*$  – equilibrium real rate of interest;

$\Pi$  – inflation rate;  $\Pi^T$  – inflation rate target;  $\Pi^a$  – anticipated inflation rate;

$a_0$  – autonomous components of aggregate demand;

$s_1, s_2$  – stochastic shocks.

The first equation corresponds to aggregate demand (IS curve), the level of output being influenced by past and future levels, respectively by real interest rate. The second equation refers to the Phillips curve backward and forward-looking. The coefficient  $b_1$  refers to flexibility degree of prices. Last equation refers to a monetary policy rule, similar to that of

Taylor, in which the interest rate requires knowledge of reference variables: equilibrium real rate of interest, anticipated inflation rate, lagged output gap and the deviation of the inflation rate from the target.

Establishing the natural rate of interest is consistent with adopting a neutral monetary policy, determining compliance with the inflation target without deviation of the output. If the output gap is zero, then there is a constant rate of inflation, according to second equation. Knowing that  $i_R^*$  corresponds to the potential GDP, then it should be equal to the ratio of the coefficients  $a_0$  and  $a_3$  (in first equation  $\Delta Y = 0$ ).

Thus, the New Consensus advocates argue that inflation can therefore be reduced by the interest rate instrument. This affects aggregate demand and output gap (according to first equation), which in turn influences current inflation (according to second equation). Natural rate of interest, estimated by the Central Bank, means equalizing demand and aggregate supply at level of potential GDP (with zero output-gap).

According to model proposed by McCallum (2001) it results that economists belonging to the New Consensus have the following five arguments:

- **the money is neutral in the long run.** It results that there is a vertical long-run Phillips curve which coincides with potential output (consistent with the NAIRU), i.e. there is no long-run trade-off between inflation and unemployment. It results that increase of money offer does not affect real variables, but only nominal ones (such inflation rate);
- **the aggregate demand changes cause an expansionary or recessionary output gap.** The changes of the fiscal or monetary instruments lead to aggregate demand changes and to short-run deviations from potential output.
- **the economic growth process is influenced by potential GDP.** Production capacity of the economy is influenced by long-run aggregate supply which is the results of the capital stock, employment and technical progress.
- **the inflation rate is influenced largely by inflation expectations.** These lead to increase of the Phillips curve on short run

(PC<sub>s</sub>), affecting output and inflation and requiring an adjustment of the monetary policy rule (figure 1).

- **the interest rate is exogenous in relation with money offer, but endogenous in relation with other variables, such inflation rate or output gap (monetary policy rule).** It results that traditionally LM curve no longer describe the relationship between money supply from monetary market and interest rate.

## The Post-Keynesian critique

The objective of this section is to present an alternative to orthodox approaches of the New Consensus about monetary policy management. I have used some arguments summarized by Post-Keynesian advocates, such as these being formulated by Lavoie and Kriesler, 2005. Generally, post-Keynesian critique aims to investigate the validity of the relations sustained by New Consensus approach and to explain the major challenges for a central bank which targets an inflation rate level. There are three major differences between the two approaches, inspired by equations of the McCallum model:

- **the relationship between interest rate and investment is not a linear one, such in first equation of the McCallum model (2001).** The first reason is that the monetary policy interest rate does not always influence the long term interest rate or the lending rates, whose changes affect the aggregate demand. The interest rate pass-through can be an ineffective process and it is possible that the monetary policy decision do not influence the real economy, i.e. output and employment. The second reason is that the economy may be in a “liquidity trap”, situation in which the interest rate reduction does not increase the investment, due to lower business confidence in an economy. Therefore, the inverse relationship between interest rate and investment is not available in any situations.
- **the money is not neutral in the long run and the long-run Phillips curve is not vertical one (second equation in**

**McCallum model).** It results that increase of the aggregate demand influence output and employment on long-term. Also, some economists are even skeptical about the existence of short-term compromise between inflation and unemployment, i.e. reject the form of the short run Phillips curve. The first reason is that short-run aggregate supply is horizontal one, according to Keynesian view, and the employment can increase at constant level of the prices. The second reason refers to stability of wages as a result of collective bargaining, which does not induce additional pressure on inflation.

- **the monetary policy rule (third equation in McCallum model) is affected by lags of transmission of the central bank interest rate upon the inflation rate.** Arestis (2004) has explain that increase of the interest rate with 1 percentage point in euro area led to a decrease of the inflation rate only with 0.2 percentage points. The first reason is that a central bank has difficulties to better approximate the inflation rate over several month when the current monetary policy decisions can influence it. The second reason is that the inflation process may be the consequence of the cost push in the economy on which the central bank has a lower influence. Therefore, high interest rates can coexist with higher inflation rate (Gibson paradox). The third reason refers to difficulties of the central bank in calculating an equilibrium real interest rates, which must be equal to the ratio of the coefficients  $a_0$  and  $a_3$  (the first equation of the McCallum model). Changing propensity to save, to investment or demand for exports could influence the coefficient  $a_0$  and consequently the neutral rate of interest.

Based on the above reasons of the Post-Keynesian approach in literature have proposed several ways of amending the New Consensus macroeconomics. Thus, Lavoie (2005) argues the necessity of a fourth equation in the McCallum model, according to which the target inflation rate should match the natural rate of growth maximization. Therefore, deviations from optimal inflation rate would induce a decline in a potential growth rate. Satterfield (2004) argues that the potential growth is

affected by the path of actual rate of economic growth. Thus, a reduction of aggregate demand will generate an increase of structural unemployment and a decrease of potential GDP. Not surprising in times of recession it registers a lower real GDP and a lower potential GDP. Also, the author has proposed another variable in the second equation of the model – a variable which explain the cost push inflation, neglected by New Consensus approach. According to this relationship, only a part of the previous inflation ( $\alpha_3$ , positive and lower than one) is transmitted to the current inflation and increasing production lead to an increase in inflation:

$$\Pi_t = \alpha_3 \Pi_{t-1} + \alpha_4 Y_t + \Pi_c,$$

Where:

$\alpha_4 > 0$ ;  $\Pi_c$  – a vector of institutional variables that affect aggregate wage and price setting behavior.

Other economists (Freedman, Harcourt and Kriesler, 2004) believe that there is not a positive relationship between the output and inflation, such in the above equation. They argue that in the case of the most production levels, the impact on inflation rate is low. Therefore, changes in output lead to inflationary pressures only at levels near full utilization. Similarly, only at very low levels of capacity the inflation rate will register a reduction. Consequently, there is a short-run tradeoff between inflation and unemployment only at very low/high output levels, while in the other cases, inflation will be constant (figure 2). In the situation described by the three economists, Phillips curve equation becomes:

$$\Pi - \Pi^T = \alpha_5(Y - Y_0) + \alpha_6(Y - Y_p)$$

where:

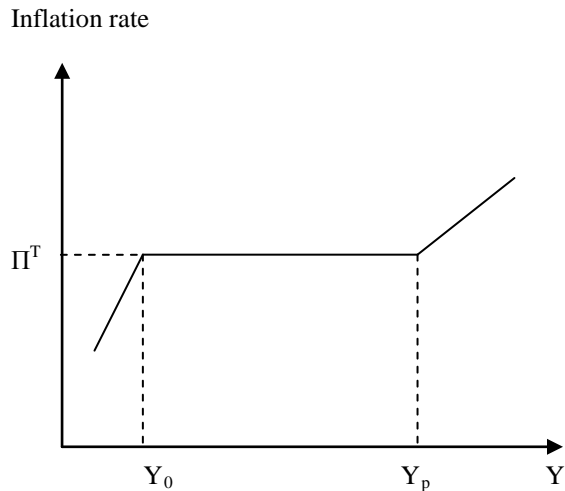
$\Pi$  – actual inflation;  $\Pi^T$  – inflation target (corresponds to  $Y_p$ );

$Y_0$  – lowest level of output, below which the inflation rate falls

$Y$  – actual output ;  $Y_p$  –potential output;

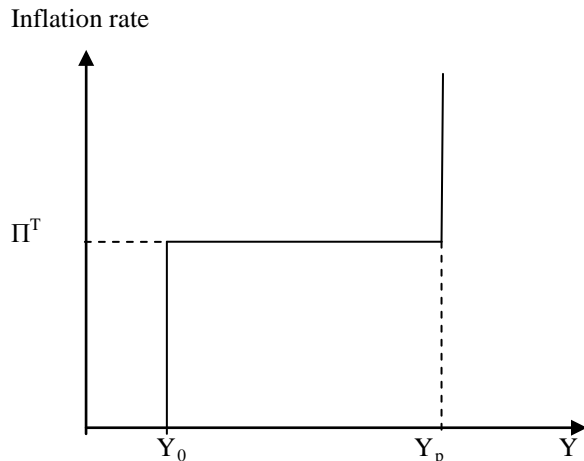
$\alpha_5 = 0$ , for  $Y > Y_0$  și  $\alpha_5 > 0$ , for  $Y < Y_0$ ;

$\alpha_6 = 0$ , for  $Y < Y_p$  și  $\alpha_6 > 0$ , for  $Y > Y_p$ .



**Figure 2.** *Post-Keynesian short-run Phillips curve*

If the current level of production is situated between  $Y_0$  and  $Y_p$ , the change in inflation is zero and it is identical with the target. According to the new form of the short-run Phillips curve (figure 2), the central bank can promote an expansionary monetary policy, if the production is below the potential. The consequence is a fall in employment for a higher production than level  $Y_0$ . Because inflation rate does not deviate from the target, then inflation expectations will not change, which is a reason to keep it steady and long term. Based on these correlations can be established that form long-term Phillips curve is horizontal level of production located between  $Y_0$  and  $Y_p$  and vertical for  $Y_0$  and  $Y_p$  levels (figure 3).



**Figure 3.** *Post-Keynesian long-run Phillips curve*

These new forms of the short/long-run Phillips curves were proposed by Lavoie and Kriesler, 2005. These authors have offered some arguments to sustain the post-Keynesian critique, based on empirical estimations of the three economists. Thus, Eisner (1996) showed that the U.S. economy was characterized by the short term compromise between inflation and unemployment only for high rates of unemployment (for output levels below  $Y_0$ , Figure 2). Filardo (1998) estimated the under a limited output gap any negative deviation from potential output has no inflationary effect. Recently, Wang (2004) noted that most data available for the American economy from 1970 to 2003 suggest a production level between 78% and 85% of maximum capacity with a constant rate of inflation. For represent this situation in the figure 2, I will consider that  $Y_0$  is 78% and  $Y_p$  85%. The main factor that could generate inflationary pressures and therefore a change in post-Keynesian Phillips curve is the price of primary resources, extremely price sensitive global demand.

According to post-Keynesian arguments, it can be concluded that promoting a restrictive monetary policy is not necessary for most levels of production achieved. The cost of this policy involves a reduced rate of labor participation, which could lead to lower growth rates and a slowdown in potential GDP increase.

### Note

<sup>(1)</sup> Taylor recognized that if the central bank acts on an incorrect estimate of the natural rate of interest, “then the steady state inflation rate will not equal the target inflation rate”. “The rate of capacity utilization can converge to its normal level without the steady state inflation rate converging to the target rate set by the central bank. If the implicit real interest rate estimate is too high, the actual steady state rate of inflation will be too low relative to the target, and hence the central bank will need to revise downwards its estimate of the natural rate of interest”. (Lavoie and Kriesler, 2005).

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