

Interdependencies Between the Capital Market and the Monetary Policy Decisions

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Abstract

The declared scope of this work is to highlight the main correlations between the monetary and the capital market, including identifying the adequate objective of monetary policy which might positively influence over the offer on the capital market. The main target of the monetary market consists in the stability of the prices.

The link between monetary policy and stock market is extremely important. The stock prices are sensible to economical conditions. Moreover, these prices rapidly change, thus there is a chance for a deviation from the fundamental value, with side-effects for economy.

Key words

Capital market, monetary policy, stocks, bonds, interest rates

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Monetary policy influences the function of the capital markets. Within the monetary transmission mechanism, changing the interbankary interest rates, active prices and ongoing changes. The variation of the monetary policy interest rate thus influences the market value of the mobiliary values, such as bonds and stocks. Bonds price is reverse to the long term interest rate, thus an increase of the long term interest rates generates a fall of the bonds price. If the other factors stay the same, the increased interest rates also lead to a drop of the price of other mobiliary values, such as bonds. This happens because the following expected rentabilities are discounted at a higher rate, thus the present value of future incomes will drop. If the other influence factors do not stay the same, changes in the monetary policy may have indirect effects on the expectations regarding the future economic activity.

The question we need to ask is: how much is the stock price influenced by the variations in the monetary policy? It is very important to focus on the variations that the market participants could not predict regarding the monetary policy, because the predictable variations are known by the investors, thus there is little possibility that the stock prices might be affected upon the announce.

When announcing a variation of the interest rate by the Central Bank, the stock indexes immediately change values, the market thus incorporating the fluctuations of the interest rate in the aggregated values of the actions. An estimation of the size and duration of these effects is not an easy thing to do. Because capital market brokers are generally well informed, any monetary policy decision which was predicted is already incorporated in the stock price, generating a weak reaction when announced.

Capital markets are useful sources for information regarding monetary policy expectations. The monetary policy decisions are implemented by modifying the target regarding the short term interest rate, respectively the monetary policy interest rate (the interest rate for the attracted deposits). A decrease of this interest rate generates an increase of the stock value. Contrary, the restrictive monetary policy (increase of the interest rates) presents effects on the capital market, reducing the action value.

Why does the monetary policy influence the stock price? Unpredicted variations in the monetary policy influence the stock prices, not so much by influencing the dividends or the real risk-free interest rate, but by influencing the risk factor of the stocks. A restrictive monetary policy makes investors see the stocks as a risky investment and thus ask for a higher lucrativeness rate. At a given level of the predicted dividends, the higher lucrativeness rate required by the stockholders can be reached by lowering the current stock price only. This has various implications, including as far as the influence of the stock price in transmitting the effects that the monetary policy decisions have on economy is concerned.

Let us suppose that investors do not take into account the risk. At this moment, there are two factors influencing the current stock values: the pieces of information influencing the investor's predictions regarding the current and future dividends or the information influencing the investor's predictions regarding the short term interest rates, whether current or future. The pieces of information regarding whether the current or future dividends, measured in real terms, are higher than previously expected should diminish the stock price. There are two possible explanations for the reason why the expectations for the real short term interest rates diminish the stock price. Firstly, in order to evaluate future dividends, an investor must update them; since the high interest rates make the future dividend be lower in the present, similarly, high interest rates diminish the stock value. Secondly, the high interest rates make investments, other than stocks, be more attractive, increasing the required lucrativeness of the stocks and diminishing what the investors are willing to pay for it.

In an environment where the investors do not take risks into account, the stock prices should only be modified based on the information regarding current or future dividends or based on real current or future interest rates. However, investors do take risks into account. Considering this and the fact that stocks are seen as risky investments, investors generally require a higher average lucrativeness, as opposed to other assets considered less risky. This supplementary lucrativeness, known as stock risk bonus, reflects an additional compensation required by the investors in exchange for having risky assets.

As well as the information and real interest rates, the information influencing the risk bonus of the actions present side effects over the stock price.

We have identified three factors influencing the stock price:

- information regarding whether current or future dividends will be raised, thus increasing stock prices;
- information according to which the real short term current or future interest rates will be higher contribute to the diminishing of the stock prices;
- information which determine the investors to ask for a higher risk bonus for stocks will diminish their price.

The Central Bank's decisions influence the stock prices as far as these influence the investors' expectations regarding dividends, real short term interest rates or the stock risk level. It is important to determine quantitatively which of the investors' expectations are most affected by the unpredicted variation of the Central Bank interest rate. Predicting these key variables, the investors may estimate how much they are willing to pay for said stocks.

If an unpredicted increase of the official rate significantly modifies the predictions regarding future dividends, but do not greatly influence the predictions regarding interest rates or risk bonuses, then we can assume that the monetary policy influences stock prices mainly by modifying the investors' expectations regarding future dividends. If, however, the variation of the monetary policy influences predictions regarding real interest rates and not the rates for the other two variables, then the unpredicted monetary policy decisions influence stock prices mainly by means of lucrativeness rates expected by the investors.

As a consequence, an unpredicted restrictivity of the monetary policy contributes to an insignificant variation of the predictions regarding future dividends and real future interest rates. The most important effect of the monetary policy restrictivity is accomplished by means of increasing the risk bonus of the stocks. This may only occur if the current stock price falls.

The restrictive monetary policy may increase the risk level of the stocks, by increasing interest costs and by damaging the companies' balance sheets. Conversely, an expansionist monetary policy increases stock prices and diminishes risk bonuses, thus reflecting a diminishing of the economical and financial volatility. In this latter case, the economic and financial risks are diminished.

The transmission of the monetary market over the economy is made by means of capital markets. In this context there are a number of approaches, such as:

- monetary policy and short term interest rates: liquidity effect, referring only to the shocks on the money supply;
- monetary policy and long term interest rates: the expectation theory regarding the term structure of the interest rates;
- monetary policy and stock prices: the updated dividend model;
- monetary policy and currency rate: the overshooting model. A restrictive monetary policy leads to a short term appreciation of the national currency, after which it tends to lead to a depreciation.

The stock prices reflect predicted dividends, profits or updated cash-flows of the companies.

The effects of the monetary policy on the stock prices are as follows:

- monetary policy, by varying the official interest rate, influences the discount rate;
- monetary policy, by varying the official interest rate, influences predicted cash flows, updated to a modified interest rate;
- a problem of the identification of the monetary policy effects on the stock prices consists of the correlation between interest rates and the inflation rate. Shall the interest rates rise as a consequence of inflation, future cash-flows also will.
- due to the rigidity of the inflation, monetary policy influences the real interest rates. A higher interest rate leads to a decrease of the stock prices, as the discount rate has increased and the profits/dividends are low.

The stock prices decrease when the monetary policy is restrictive (the interest rate increases).

The effect on stock prices is statistically significant, but the explanatory power of the monetary policy is highly limited.

A hypothesis of effective markets suggests that only the unpredicted variations in the interest rates shall influence stock prices. Predicted variations of the interest rate are already incorporated in the stock price at a prior moment.

It is important to analyse which is the macroeconomic impact of inflation and of the interest rates on the functioning of the capital market. We must also take into account the important role that predicted inflation and nominal interest rates play in determining the requested lucrativeness rate, used in the evaluation of the investments. It is foreseeable that these variables be highly important in the microeconomic evaluation.

The effect that the monetary policy provisions have on the investing decisions is generally regarded as a key element in the monetary transmission mechanism. The monetary policy influences investing decisions by means of capital cost, a mechanism called interest rate channel.

Imperfections on the capital market are included in another monetary policy channel, the credit channel, implying the existence of a number of amplifying factors which disseminate the effects of the interest rate, consisting of the balance position channel and the credit channel. Should the capital markets be less than perfect, the variation of the financial condition of a company may affect its needs for capital stock, thus involving the balance position condition.

The degree to which the Central Bank reaches its main objectives of maintaining the price stability and the credibility of its efforts also has long term implications for the real economy. In this context, an individual decision concerning the monetary policy may be less important in a general framework, the latter being the decisive factor. Should the monetary policy objectives and strategy not be clear, inflationist pressures will occur, as well as risks

leading to increased real interest rates and which will determine turnover curves, which affects economic rise.

On a short and medium term, the monetary policy measures present real additional effects. These represent links within the transmission mechanisms between using monetary policy instruments, on the one hand, and modifying stock prices, on the other. Analytically, there are two distinct stages within the monetary policy transmission mechanism. In the first stage, the monetary policy measures the impact on various segments of the capital market, which is reflected in adjustments of the market interest rates and of the active prices, currency rates and other financial conditions. In the second stage, these variations affect the individual inclination towards consumerism. An important factor is the way the monetary policy measures influence the investing behaviour. Corporate investments are an extremely evanescent component of the aggregated demand, representing an important factor of both the economic growth, as well as of the full employment of the labor force.

Capital cost represents the most important variable by means of which the monetary policy may influence the investing activity, respectively the investing decisions. Depending on the investment request, this is known as the interest rate channel. However, the influence of the Central Bank on the real financing costs is highly limited. On the long run, the attempt to push the real rates of the capital market under their stability level by means of an expansionist monetary policy leads to an increase of the inflation.

When the investors anticipate an increase of the inflation, the requested lucrativeness rates similarly increase, so as to reach constant lucrativeness real rates.

There is an imperfect relationship between interest rates and inflation. Should the relationship be perfect and should the investors correctly predict the following inflation, the spread between the interest rate and the inflation rate would be constant, reflecting the real lucrativeness of corporate bonds. Investors do not correctly predict the evolution of the inflation rate. The theoretical relationship is that between the predicted inflation and the interest rates, which differs from the information regarding the current inflation.

The currency demand is supposed to be a negative function of interest rates. This affirmation is supported by the IS-LM model, which considers that the existence of a high money supply will lead to high costs / high inflation after a while.

The money supply and the interest rates are dependent upon the supply and demand shocks. Thus, the monetary policy influences real long term interest rates and are much more important for investments, consumerism etc. The Central Bank does not have direct influence on long term interest rates. Market interest rates are determined by the inter-temporal shunting between real active interest rates (for credits) and passive interest rates (for deposits), and by the predictions regarding inflation. Variations in the money supply may influence the predicted inflation.

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