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The Capital Market Route for Monetary Policy

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by

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In analysing how monetary policy works, the route or channel by way of the capital market is often ignored. This transmission mechanism between monetary policy actions and aggregate demand depends upon the structure of the capital market. These structures differ among countries and evolve within each country, perhaps to a greater extent than commercial banking systems narrowly defined. Thus the time path of the effect of Central Bank actions cannot be foreseen without an understanding of these market institutions.

The argument will be that structural attributes affect the time paths of the effects of monetary policy actions, not that they affect the "ultimate" or "long run" result. For monetary policy, as construed here, the "long run" never occurs. Proofs that a "virtual" equilibrium imbedded in various ruling relationships and independent of institutions and path, exists may be a nice intellectual exercise. However, in the world as it more or less is, long before the "forces" leading to the long run equilibrium have had a chance to work, new problems will be presented by 'nature', and, as a reaction, additional monetary policy actions will be taken.

In addition to a need to understand this capital market mechanism, there is also a need to evaluate its importance. The monetary policy actions that affect the capital market will operate through the terms upon which long term ~~external~~ external to the investing unit financing is available. The capital market may be so structured that monetary policy actions have a quick and desired effect upon long term financing through the capital market's specialized intermediaries, but such capital market financing may be a minute portion of total financing. In this case, through this channel monetary policy will not be effective.

Central banking is not a series of rules, it is a flexible instrument of control. The control objectives of a central bank can be listed under three headings: internal stability, external stability, and economic growth.[1/] The actual meaning of these objectives, their relative

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1/ Allocative efficiency may be an objective which determines the desirable structure of financial markets but in a Central Bank's use of its instruments, allocative efficiency typically, perhaps unfortunately, seems to play a minor role. Thus Central Banks increasingly resort to directives to obtain constraint, rather than allowing a non-discriminating variable price to do the necessary rationing.

importance and the way in which a central bank goes about achieving them will vary from country to country and within a country from time to time. Thus central banking, even in terms of its objectives, is flexible. It is not an instrument of control which can be imported, complete with organization charts and operating techniques: for in each country the central bank must be in tune with special institutional arrangements, traditions, and policy objectives.

A central bank, once fully established, is powerful. It is not all powerful; examples of central banks losing control over their financial system are plentiful.(1) Although it cannot impose its will as to the desirable structure and behavior of the financial system, it is powerful enough to affect the evolution of its financial system. For example, the Federal Reserve System of the United States tried to promote an expanded acceptance market in the 1920's; it failed miserably. On the other hand, the Federal Reserve System did succeed in promoting and perfecting a large and efficient market for government securities, especially Treasury Bills, in the Second World War period and after. The 1969 run off of C.D's in the United States, which is the result of — Federal Reserve controls which operate by way of ceilings on such interest rates may have permanently damaged [illegible] instrument.

In its position as the not quite Supreme Court for financial institutions, a Central Bank must necessarily exercise judgement with regard to the possibilities within its country. It must not try to impose some ideal type, perhaps drawn from the experience of other countries, upon its own financial markets. It is a waste of energy and resources to try to establish financial institutions which do not reflect a real financing need, and it can impose real costs and retard growth possibilities if particular institutions are prevented from engaging in some line of business because "it isn't done" by this class of institutions under ideal conditions, or in some other economic environment.

Because institutional development in finance is almost always unique, the Central Bank's rules of behavior, the markets in which it directly operates and the institutions which it directly controls will differ from country to country and within a country from time to time. Central banking therefore is inherently a matter of discretion rather than of rules.

1. The Federal Reserve System lost control over the United States money and capital markets at the end of the summer of 1966; the 1969 experience again is a case of the 'market' vetoing, in the short run, policy constraints of the Federal Reserve.

for what. In what follows many of the examples will be drawn from the United States. This is because I am most familiar with American usages. It is clear from the above that the United States arrangements are not to be construed as a model to be adopted by other economies.

The capital market deals in long-term (equity and debt) liabilities of business and governments. By definition such a market exists whenever long term external financing exists and trading in outstanding long term assets is permissable. Thus both new and outstanding issues are handled through this market. What distinguishes one capital market from another is the spectrum of assets that are available, the institutions, specialized or general, that operate in this market, and the number of participants.

The specialized firms that operate in this market are called investment bankers and the function of acting as dealers or brokers in the long term security market is investment banking. The investment banking function exists, whether or not there is a substantial set of specialized investment bankers, whenever there is a long term security market. Investment banking may be carried out by other institutions, in particular, the institutional specialization into investment and commercial bankers may be blurred.

Investment bankers can act as dealers or brokers. As dealers they buy both new and secondary issues for their positions (inventory) and they sell out of these positions. They actually take title to the securities. As brokers they bring buyers and sellers together for a commission, they never own the issues in which they operate. Investment bankers will be both simultaneously: whether they act as one or another in a particular type of transaction depends upon institutional arrangements and practical considerations.

Of particular interest is the way new external capital financing is handled: how long term debt or equity financing is processed, both for

continuing firms and new firms. In the United States, investment bankers[1] typically underwrite new issues of both stocks and bonds (except for debt of the Federal Government). These new issues may be sold or placed privately with a few large investors.

In underwriting, investment bankers, often organized in "ad hoc" syndicates, purchase the entire new issue from the originating government body or private firm. They reoffer the issue to the public or to selected units in a private placement, at a price somewhat higher than their purchase price. The investment banker borrows a larger percentage of the ~~cost~~ value of the new issue from commercial banks, thus a major cost of doing new issue business is the interest paid in order to finance underwriting positions.

What underwriting does is transfer the risks of short run market fluctuations and public acceptance of a new issue from the firm or government body doing the financing to the investment banker. The investment banker, being in continuous contact with the public and having a network of customers presumably has a good idea of the terms that a particular type of financing needs to carry for it to be acceptable in a particular situation.

Interest costs for securities in position, which ~~are~~ is a major cost of ~~doing~~ underwriting, vary with the rate of interest and the time an item is carried in position. Investment bankers have an interest in holding new issues for as short a time as possible, they want to price new issues so as to achieve quick sales. Thus they are interested in a low price for new issues (high costs for the enterprise raising the new money).

The nature of the investment bankers business ~~could~~ can make long term financing from external sources expensive. In order to counteract this tendency, it is necessary that there be many alternative sources of financing for business firms- including a sufficient number of investment bankers to assure competition in this industry.

For the second hand sale of listed stocks in the United States (for example, those listed on the New York Stock Exchange) investment bankers

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1/ Commercial banks are permitted to act as underwriters for "municipals", the debt of state and local governments.

act as brokers: they bring buyers and sellers together for a commission. On the other hand, investment bankers act as dealers in the second hand market for most bonds, corporate, municipal and Federal Government. Thus in the secondary market for debt, the rate of interest at commercial banks is a cost to the investment banker; in the second hand market for stock exchange instruments it is not.[1/]

In bonds - both new issues and secondary issues - the convention in the United States is for the sales price to be the quoted price plus accrued interest to the date of sale. Thus while a bond is in a dealers inventory, the dealer is earning interest income. The rate at which the dealer is earning is the interest income divided by the purchase price of the bond - this can be called the running yield. This running yield can be greater, equal to, or smaller than the rate the investment banker pays to finance his position in the security. If the running rate is greater the banker makes on the carry, if it is smaller the banker loses on the carry.

The dealer also earns income from a differential between the purchase and selling prices of securities. What he makes on the carry and the mark up on purchase price are the operating sources of income for an investment banker. In addition there are possibilities of speculative gains or losses. If the price of a security in position rises (interest rate falls) the dealer makes a gain, if it falls (interest rate rises) he makes a loss. Inasmuch as positions are highly levered (financed by borrowing) small variations in the market price can lead to large gains or losses relative to own funds used; a sudden and large rise in interest rates can seriously impair the networth (capital) of an investment banker. Thus when interest rates are expected to rise dealers hesitate to take positions in longer term assets. There have been times in the United States when the market for long term government debt was really not functioning. When dealers hesitate to take positions large declines in market values can occur.

1/ Bank or money market credit may finance the 'ultimates' holdings of both stocks and bonds; thus bank credit terms are relevant for the terms ultimate purchasers are willing to accept. If as in the United States such credit purchase of stocks and bonds are restricted, the linkage between monetary policy and the terms upon capital market instruments through this mechanism is attenuated.

We will assume that Central Bank constraints are effective, whether these constraints be a reserve ratio, borrowing interest rate for commercial banks at the Central Bank, or a liquidity ratio. A constraint is effective when a change in the value of the constraint that would permit an expansion of bank credit will be followed quite quickly by an expansion of bank credit. A symmetrical definition holds for a contraction of bank credit.

We will take up constraining action by monetary authorities, within the United States institutional framework; the relaxation of constraints is symmetrical, except that an additional lag for business investment decisions is necessary.

The impact upon the capital market of changes in the quantity of, or terms for, bank credit will be upon the carrying costs of the investment bankers. With carrying cost up, the investment banker will try to reduce his inventory, which means a reduction in the selling price of his existing position and a decline in the price at which he is willing to take items into position. Also, with carrying costs up, the mark up on purchase price - the difference between the price at which a dealer is willing to buy and the price at which he is willing to sell - will increase. Thus increases in the interest rate on bank loans are transmitted to the secondary market and result in a rise in long term yields.

These increased costs immediately affect underwriting. On a bond issue the higher carrying costs means that the underwriter will require a greater running yield. It also means that the purchase price will be lower relative to the offer price than hitherto. Thus both the face interest rate to the borrower and the difference between the borrowers debt and the borrowers proceeds will increase. The cost of raising money - the long term interest rate - will imeediately respond to monetary policy, not because of any shift of ~~or~~ savings function or any other such mechanism, but because of the technical properties of the capital market.

If a common stock issue is being underwritten the same reasoning applies. The underwriter always wants to price a new issue so that it will be quickly sold out; carrying costs of inventory can eat away underwriters'

profits. Any increase in interest rates will tend to increase the pressures for a quick sale, i.e., the underwriter will press for even more favorable terms for the new issue relative to existing issues.

We can therefore conclude that if there is a very active new issues market, in which the underwriting organizations finance their positions by borrowing in the money market, any rise - or decline - in bank or money market interest rates will be transmitted to the yields on both new and outstanding long term issues. Intertemporal arbitrage based upon some expectations of the future yields of short and long term securities is not required.

The significance of this effect - and thus the closeness of the relationship between long and short term interest rates depends upon the relative importance of financing investments by new issues as compared with other sources of funds.

In a sophisticated financial environment the links between the time an investment project is started and the time it is financed are attenuated. The financial manager could delay the emission of long term instruments if he feels the time is not propitious; in the United States structure he can acquire short term funds and delay the emission of long debt for the time being. Thus there will be a feed back from rising long term rates to an increase in the demand for short term funds by corporations and municipalities. Similarly, the federal government may react to rising long term rates by borrowing more on the short term market; Treasury departments can be perverse.

At this stage in our argument a rise in interest rates - both long and short terms - has occurred but ~~there has been~~ has taken place no decrease in the amount of activity being financed. All that has resulted is that corporations, municipalities and governments may have more short term debt than they would like to have. One way to change the ratio of short debt to long debt is to use cash flows from operations, the internally generated funds, to pay off debt; but this can take place only if new investment decisions fall short of

internally generated funds. That is, the unsatisfactory nature of the balance sheet, resulting from the rise in long term rates and the substitution of short for long debt feeds back upon the pace of investment decisions.

Thus today's monetary policy actions will affect investment decisions with a lag, investment spending and thus income lag behind investment decisions. The length of the policy action - investment decision lag depends upon the sophistication of the money market.

Incidentally, if a great deal of borrowing long term by foreign corporations or states is being done in a money market in which investment bankers are sensitive to short term rates, then a rise in short term rates will tend to reduce the volume of such foreign flotations. If a country is running a deficit in its balance of payments and if it is exporting sufficient capital so that a reduction in capital exports could turn the balance of payments 'favorable', then the capital market route is a very important cog in the balance of payments equilibrating mechanism. If either the capital market is not sensitive to short term interest rates or foreign borrowing in the capital market is not large, then the efficiency of raising interest rates to improve the balance of payments is questionable.

What if a capital market does not include position taking investment bankers? In these circumstances either underwriting is done by other institutions - such as commercial banks or a government agency - or it does not exist.

If underwriting does not exist then new long terms funds, aside from those raised internally by the investing firm, can be raised either by direct placement at some financial intermediary or at a few "rich" individuals, by auctioning the new securities, or by having investment bankers sell the securities in a best effort basis for some commission. None of these market structures would result in the financing terms in long term investment being immediately sensitive to variations in short term interest rates or the availability of bank credits. The link between long and short term rates is attenuated because a large capital market element is missing.

If independent and strong investment bankers do not exist, commercial bankers may ~~be allowed to~~ underwrite new issues. The linkage between money market conditions and long term rates now depends upon how banks cost the funds allocated to the underwriting department and whether the underwriting act is a prelude to holding long term debt and equity of corporations as part of the bank's portfolio or whether banks quickly sell out their underwriting position.

If commercial banks were only underwriters, if funds used in underwriting were costed to the underwriting department at terms that accurately and quickly reflect money market conditions, and if underwriting positions had to be cleared in a relatively short time then the same linkage would hold as is true for independent debt-financed underwriters. That is, the capital market linkage between short term rates and long term new issue rates is maintained.

On the other hand, if commercial banks not only underwrite long term issues but also buy such issues for their portfolios, then long term rates need not react as quickly or clearly to variations in short term rates. The investment portfolio of the bank, by taking up the unsold portion of an issue, will decrease the need to cost carrying charges at market; whenever the underwriting department makes a mistake the investment department can bail it out.

In fact, the terms of the issue will usually be the terms upon which the investment department of the underwriting bank is willing to purchase the unsold amount. In general this residual purchaser constraint will tend to keep rates fairly steady; a capital market in which commercial banks both underwrite and take into position new issues should exhibit a smaller variation and a higher average for yield than is true of a capital market in which commercial bankers do not position long term assets and where a large, competitive and aggressive investment banking community exists.

Thus the articulation and sensitivity of long term financing terms to variations in short term or money market rates ~~them~~ depends upon the structure of the capital market.

In a country with a poorly developed capital market, where commercial banks are restricted to traditional commercial loan type portfolios, the link between money market rates and the effective terms upon which long term financing is available can be very attenuated. Thus changes in the discount rate, or the rate of change in the reserve base, or whatever short term or money market directed action the central bank takes will have at most a tenuous effect upon financing terms.

Given a poorly organized capital market the expectation is that the terms upon which an enterprise can acquire external long term financing will be quite putative. These terms will also be insensitive to money market rates. Thus to the extent that monetary policy's effectiveness depends upon its impact upon long term financing terms, monetary policy will be less effective in a country with a poorly organized capital market than in one with a sophisticated multidimensional market.

Inasmuch as the 'poorly developed' capital market typically exists in the less well developed countries of the world, this exercise in tracing linkages indicates that the borrowing of Central Banking institutions and operating techniques from the advanced countries, say Britain, the United States or Japan, by a less developed country, say Pakistan, may be a poor thing to do. Central banks must always live within the realm of the possible and as in many things, the ideal or model may be an obstacle to the possible good.

Trade through to balance sheet effect
f.p.l - | high short term debt/equity ratios ?