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## Excess capital and liquidity management

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**Working Paper No. 549**

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**Excess Capital and Liquidity Management**

by

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## **ABSTRACT**

These notes present a new approach to corporate finance, one in which financing is not determined by prospective income streams but by financing opportunities, liquidity considerations, and prospective capital gains. This approach substantially modifies the traditional view of high interest rates as a discouragement to speculation; the Keynesian and Post-Keynesian theory of liquidity preference as the opportunity cost of investment; and the notion of the liquidity premium as a factor in determining the rate of interest on longer-term maturities.

“... bank purchase of securities ... affects business firms only through affecting the liquidity of firms and households... ..The open market model of bank operations involves a substitution of one asset, bank money, for another asset, bonds in the portfolios of households and firms. There is no immediate and direct impact upon investment. Any effect which such operations have upon investment depends upon the reaction of business firms to the improved liquidity and perhaps lower borrowing rates that follow. In such a world the liquidity preference relation, which is a shorthand for the substitution relation between money and other assets, becomes the appropriate tool to use in the analysis of the behavior of the monetary system.” (Minsky 1954/2004, pp. 232-233)

## **INTRODUCTION**

The textbook theory of finance and investment presupposes that firms only employ as much finance as they need to undertake profitable ventures in non-financial activities. Clearly a rejection of this view would blur the distinction between financial intermediation and other business ventures. Upon that distinction rests the simplified linear reasoning between conditions in banking and finance markets, and non-financial business activity, in particular the interest rate theory of investment. The omission of over-capitalization, and its possibilities for liquidity management has led neo-classical (marginalist) economists to believe that, in the long run, the marginal revenue from capital must equal or exceed the marginal cost of capital, proxied by the rate of interest; and has led Keynesians and Post-Keynesians to a liquidity preference view of investment wherein bank advances form a binding constraint on investment (Cardim de Carvalho 2002).

These notes show how excess capital may be permanently held by companies. Firms may hold excess capital as a way of facilitating the management of liquidity in those firms. The over-capitalization of firms leads to the holding of financial liabilities in excess of those needed to undertake production. These notes explain how, in spite of decades of financial development, and even over-development in the financially-advanced economies, the internal liquidity of large companies rather than monetary policy remains the key factor in non-financial business investment. This then allows, in a financially-advanced economy, for a pure monetary theory of interest wherein interest is a purely monetary phenomenon.

Excess capital is here defined as the excess of a company's liabilities over its productive capital, i.e., the plant, equipment, materials, and stocks of unsold products and semi-fabricates that a firm holds. Firms' excess capital is held in financial assets (Toporowski 1993, chapter 3). Financial assets may be taken to mean financial liabilities issued by other companies, banks, and financial institutions. Because of the more circumscribed use-value of productive capital assets, the liquidity and value of such assets are broadly determined by the cycle of investment activity in the particular branch of industry in which those capital assets are used. By contrast, the liquidity of a company's excess capital is determined by the liquidity of financial markets, i.e., the amount of buying in those markets by other companies, banks, and financial institutions. In turn, purchases in securities markets are determined by speculative and liquidity considerations. Government-issued money and financial liabilities are excluded from consideration in these notes.

## **THE RETURN ON EXCESS CAPITAL**

For an over-capitalized firm, the return from its excess capital ( $R_c$ ) may be divided up into an income return ( $R_i$ ), and a speculative return ( $R_s$ ), in the form of an increase in the value of the assets financed by that excess capital, over the capital value of that financing:

$$R_c \equiv R_i + R_s$$

The argument can be illustrated by considering first a very simplified situation in a banking system in which there is no uncertainty or risk (i.e., there is perfect information about current and future returns from assets). In this situation all excess capital is held in the form of claims on the banking system, i.e., as deposits, and that excess capital is financed by bank loans. The monetary value of loans financing the excess capital stays the same as the bank deposits in which that excess capital is held. The speculative return on the excess capital in this case,  $R_s$ , is equal to zero. However, the income return on that capital,  $R_i$ , may be calculated as the deposit rate of bank interest, minus the loan rate of bank interest, times the amount of excess capital over a given period. Given the usually positive margins between bank lending and deposit rates, this income return on the excess capital is therefore negative.

As an income stream, this negative income return on excess capital may be called *the rental cost of excess capital*. The rental cost of excess capital rises in proportion to the amount of that excess capital. If that excess capital is held as bank deposits, then its rental cost is the true cost of liquidity, in the form of those deposits. That cost of liquidity is fixed, providing that borrowing and lending rates do not vary, in relation to each other. In neo-classical (marginalist) analysis, it has always been assumed that excess financing is invested in real assets of declining marginal productivity. Hence, in this neo-classical world, the rental cost of excess capital rises more rapidly than the amount of that excess capital, and is therefore a stronger disincentive to holding excess capital.

The rental cost of capital is an overhead cost that raises the average costs of firms. In competitive markets, this rental cost is a competitive disadvantage. Hence, under competitive conditions, with bank finance, firms do not hold significant amounts of excess capital. But where market conditions are not competitive, or an oligopolistic group of banks control firms and prevent competition between those firms (a situation corresponding to classical “finance capital”), the rental cost of capital is the means by which banks extract profits from the firms that they control, and obtain a share of the total profits in the economy. Similarly, holding companies, such as transnational companies, may use the rental cost of capital as a means of extracting or redistributing profits from companies that they control, administering rates of interest as a form of transfer pricing.

More generally, in a banking and securities market system of finance with uncertainty about future prices, to the (negative) income return on excess capital should be added a speculative return on financial assets, so that:

**The return on excess capital = Rental cost of excess capital**

**+ Proceeds of sale of excess financial assets - Costs of purchase of excess financial assets**

In this more general case the rental cost of excess capital now reflects the costs of intermediation. To this is now added the change in the value of the financial assets in which firms’ excess capital is invested. Firms may vary the rental cost of their capital and their speculative return on such capital by shifting the financing and investment of their excess capital along the yield curve. In this way, firms may engage in maturity transformation. This makes such firms more speculative, and more

dependent upon the liquidity of financial markets to realize the speculative return from their excess capital.

## **LIQUIDITY AND CAPITAL MARKET INFLATION**

It is now easy to see that a process of capital market inflation, i.e., rising values in securities markets, (Toporowski 2000, part I) facilitates and encourages over-capitalization in search of speculative returns. Such speculative returns off-set the rental cost of excess capital, and offer the possibility of a net return over the rental cost of such capital. In turn, this has important implications for the theory of speculation and policies for controlling speculation, by raising and keeping high interest rates. Only if the yield curve maintains a constant up-ward slope can monetary policy be effective in regulating speculation, through varying the speculative return on excess capital. A higher interest rate will, if the upward slope of the yield curve remains stable, induce speculative losses through falls in the value of assets. Moreover, it is not the absolute nominal rate of interest on borrowing or financing, or even the real rate of interest, measured by the excess of the nominal rate of interest over the rate of inflation in goods markets, that serves as a deterrent to speculation by firms with excess capital. Rather, such speculation is discouraged by a high rental cost of excess capital, i.e., a wide margin between lending and borrowing rates or high costs of intermediation in relation to the expected speculative return. Such margins may not be responsive to a rise in the central bank's rate of interest, and may be ineffective if excess capital has been invested partially or wholly in liquid assets. The possession of liquid assets means that a firm engaging in speculation does not have to borrow in order to finance its financial market operations.

The liquidity of excess capital is determined by the maturity of the financing and the financial assets that companies hold against that excess capital, and by the liquidity of the markets in which those financial assets are traded. The liquidity of those markets is in turn determined by the amount of buying by banks, securities firms, households, firms and governments in those markets, or non-central bank "open market operations" (Minsky 1954/2004, p. 232). In a financially undeveloped economy, each of these sectors manages the liquidity of their balance sheets in a way specific to that sector: household, by bringing forward and postponing their consumption; firms, by bringing forward and postponing investment; governments by

issuing more money or liquid claims against themselves. In a financially developed economy, economic units in each of these sectors increasingly manage their liquidity by operating with excess capital: small firms and households by managing bank debt against real estate and, to some extent, financial assets; large firms by managing various forms of financial liabilities, from debt to equity, against claims on other companies and financial institutions; securities firms through fund management; governments through shifting liabilities out along the yield curve from bills to long-term debt instruments. Banks in turn extend their operations into securities markets, using asset and liability management and central bank facilities (Chick 1986). The proliferation of excess capital in the corporate sector vindicates the mid-nineteenth-century “banking” view against the “currency” view: the profile of an economy’s monetary and credit system is no longer determined just by its government, central bank, and banking liabilities, but increasingly also by the liabilities of the corporate sector as well.

## **EXCESS CAPITAL AND REAL INVESTMENT**

It follows that, in the most financially advanced countries, bank borrowing is not necessary for investment projects to be undertaken, except for projects undertaken by small firms, whose investments are usually not a significant factor in the dynamics of national income and output. Excess capital allows large companies that may initiate and sustain an investment boom, to undertake productive investment without a prior expansion of their financial liabilities, except in the most general possible sense. Specifically, the attitude of banks and financial institutions towards investment projects presented to them by their customers is confined to that economically insignificant “margin of unsatisfied borrowers” who lack security for their borrowing because they lack excess capital.

Where companies can vary the liquidity of their excess capital, and therefore do not have to rely on bank advances to finance their investments, the rate of interest becomes disconnected from the (real) investment process. Where companies may obtain a speculative return on their excess capital, the rate of interest is a less effective constraint on speculation (see above). In such a situation, the rate of interest becomes a purely monetary phenomenon, that is, a variable or policy instrument whose significance is confined to the sphere of financial intermediation.



## **THEORETICAL IMPLICATIONS**

It may be supposed that since saving equals investment, it is not possible for firms to hold excess capital, except as net debt issued by either households, the government, or the foreign sector. This is true if it is assumed that all production is, and has only ever been, undertaken by capitalistic firms. This is historically and empirically untrue: such a hermetic and immaculately conceived capitalism has never existed. Once even a small amount of excess capital is held by even a small number of firms, inflationary processes in the capital market, most directly merger and acquisition activity, will give a value large or small to that excess capital, in relation to the value of current productive capacity, that is determined by expectations of the return from excess capital. These expectations are in turn determined by the speculative temper of the capital markets at any one time. Excess capital does not require additional prior saving. It merely requires firms or intermediaries with excess capital to hold each others' capital, or exchange capital obligations with each other as companies commonly do in the course of their financial market operations, and thus the process of their balance sheet restructuring.

The analysis here may be viewed as an extension to excess capital of Keynes's theory of "own rates of interest," with three modifications (Keynes 1936, chapter 17). It is assumed here that the carrying cost of excess capital is negligible, since the cost of managing a company's balance sheet may be safely treated as an overhead cost that is only increased by the holding of excess capital if that portion of a company's capital is held in assets different from those in the rest of the company's balance sheet, or is financed differently than the rest of the company's assets. It is also assumed that there is no "liquidity premium," which the company will be willing to pay for "power of disposal" over the excess capital. In place of a notional additional revenue that the firm expects to receive for having a less liquid balance sheet, it is assumed here that companies manage their own liquidity, thus keeping in their overall balance sheet an amount of liquid assets equivalent to Keynes's "liquidity premium." Moreover, when firms can at any time vary the liquidity of the assets in their balance sheet, by issuing more long-term capital and holding the proceeds as short-term liquid assets, a liquidity premium for less liquid assets is redundant. Instead of demanding a higher return from less liquid assets, a firm concerned about the limited liquidity of an

asset has merely to issue excess capital in order to acquire more liquid assets against those less liquid ones. Perhaps more obvious than this connection with Keynes are affinities between the ideas presented in these notes and the industrial economics of Kalecki and Minsky and, in particular, the monetary economics of Kalecki.

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