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"ENFORCED INDEBTEDNESS" AND CAPITAL ADEQUACY REQUIREMENTS

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Introduction

The capital adequacy requirements for banks, enshrined in international banking regulations, are based on a fallacy of composition—namely, the notion that an individual firm can choose the structure of its financial liabilities without affecting the financial liabilities of other firms. In practice, capital adequacy regulations for banks are a way of forcing nonfinancial companies into debt. "Enforced indebtedness" then reduces the quality of credit in the economy. In an international context, the present system of capital adequacy regulation reinforces this indebtedness. Proposals for "dynamic provisioning" to increase capital requirements during an economic boom would simply accelerate the boom's collapse. Contingent commitments to lend to governments in the event of private-sector lending withdrawals, alongside lending to foreign private-sector borrowers, are a much more viable alternative.

"Enforced Indebtedness"

Since the 1980s, conventional wisdom has it that banks can be made more secure by having capital that is sufficient to meet a decline in the quality of their assets (loans or bonds). This thinking was reflected in the Basel Accord of 1988, which lay down minimum capital requirements in relation to the supposed riskiness of assets. Apart from the fact that there is considerable uncertainty about the precise riskiness of assets, the strategy of securing bank stability by enforcing capital adequacy is based on a fallacy of composition: what is good for one bank is not necessarily good for all banks taken together.

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Essentially, the strategy is based on a microeconomic presumption that each bank can determine its liabilities (i.e., the scale and distribution of its liabilities between deposits and capital) without affecting the liabilities of other banks and firms in the economy. This is a fallacy, because the process of issuing capital or liabilities is subject to two constraints. The first of these is the balance sheet constraint—that is, one bank's (or firm's) liability is another bank's (or firm's) asset. Secondly, even if one assumes that the price system (i.e., the return offered and accepted on liabilities and assets) will allow all banks and firms to issue the kind of liabilities that they wish to have on their individual balance sheets, there is no guarantee that their assets will generate sufficient income to allow each individual bank or firm to make the payments on those liabilities.

In practice, banks cannot determine their capital without affecting the availability of capital for other economic enterprises. If we exclude the possibility of bank holding companies and bank capital cross-holdings (see below), the current supply of capital in the financially advanced markets of the OECD countries is principally determined by the cash flow and respective liability structures of other financial intermediaries (e.g., pension funds and insurance companies). Given a certain capacity on the part of other nonbank financial intermediaries for purchasing equity, a regulatory requirement to increase bank capital reduces the amount of capital available to nonfinancial firms. If nonfinancial firms are unable to secure the amount of equity capital that they need, they are obliged to raise capital through the issue of debt instruments in the form of corporate bonds or company paper. In this way, stabilizing banks by raising capital requirements becomes a way of "forcing" companies into debt.

The "enforced indebtedness" of companies is a crucial factor in bringing about financial crisis and recession. Both the 1929 stock market crash and the crash of 2007–08 were preceded by rising capital issues by financial intermediaries and the growing indebtedness of nonfinancial firms. The response of nonfinancial firms to rising levels of debt is to reduce their (productive) investment in fixed capital. Such falls in fixed capital formation are a key factor in bringing about recession in the real (nonfinancial) economy, and, in the case of the 1930s (or Japan after 1992), extending recession into economic stagnation and depression.

The "crowding out" of the nonfinancial business sector's demand for capital also raises the cost to them of the capital they eventually raise. Because banks have to satisfy a capital regulatory requirement, they are willing to pay whatever price it takes to get the capital onto their books. This "inelastic" demand for capital means that banks may end up promising a higher return on the capital they raise. Nonfinancial firms wishing to raise equity capital must then match or offer even higher returns on the capital they wish to issue. This is reflected in the rising yields on corporate equity issues since 2000.

The other way in which banks can accommodate demands for higher capital ratios (i.e., ratios of capital to assets) is by securitization—that is, by packaging bank loans as bonds and then selling those bonds to other financial intermediaries (insurance companies and pension funds). This raises banks' capital/asset ratios by reducing the amount of risky assets on the banks' balance sheets. Securitization has recently had bad press because of its role in the "business model" of failed banks such as Northern Rock. But there is another channel by which securitization has contributed to financial fragility: through the sale of loan-backed bonds to other financial intermediaries. Such sales effectively reduce the pool of capital that nonfinancial firms can raise in the markets. This is another means of "forcing" companies into debt.

These considerations apply to the issue of bank capitalization through the sale of equity capital to financial institutions such as insurance companies and pension funds. The sale of equity capital to private individuals is not an effective means of raising capital because few individuals are wealthy enough to be able to hold significant quantities of capital on the scale required by banks. However, there is yet another method for raising bank capital; namely, by establishing bank holding companies, or cross-holdings of bank capital. A bank could issue equity capital that might be held by a holding company financed mostly with debt instruments, such as bonds. Alternatively, two banks could agree to issue capital to each other. The holding company method is a way of creating capital that is really debt, and this would show up in consolidated accounts. Moreover, it is a highly speculative form of financing, since the holding company ends up with financial commitments that must be serviced out of less liquid assets whose value and income are much less certain that the holding company's liabilities. This is why, in the past, bank holding companies were strictly regulated. The second method gives rise to a "layering" of capital within the financial system, with banks holding other banks' capital in their asset portfolios. Such cross-holdings have adverse effects

on interbank competition, on bank efficiency, and on the vulnerability of banks grouped in this way to any risks that might affect the assets of any one of them.

"Enforced indebtedness" increases the financial fragility of the economy. Firms that would have preferred to finance themselves with equity capital find themselves holding levels of debt over their planning horizon that they would prefer to reduce. They can accommodate this excess debt in one of two ways. Firms can hold larger amounts of liquid assets (bank deposits, foreign currency deposits, or short-term bills), but this means that capital they have issued is "wasted" by being held as financial assets, rather than being applied productively to the expansion of output or fixed capital. Alternatively, firms can reduce their fixed capital investment in order to build up those liquid assets. Either way, productive investment ends up being less than it would otherwise be. If sufficient firms succumb to indebtedness in this way, the economy moves to a lower growth trajectory. Fixed capital formation is a key factor in the liquidity of firms, with higher investment in fixed capital by the business sector as a whole being associated with higher profits retained by individual firms. Lower investment in fixed capital therefore reduces the liquidity of firms and their ability to service their debts. Indirectly, the company indebtedness enforced by raising capital requirements for banks may itself cause a decline in the quality of bank assets.

The Business Cycle and Variable Capital Requirements

Looking at this issue over the course of the business cycle, it is easy to see how regulatory bank capital requirements may make fluctuations in economic activity that much more extreme. Given even moderate business fluctuations, it is prudent for nonfinancial firms to raise additional equity capital as a boom proceeds, because the longer the boom lasts, the closer the eventual recession, and the more likely a fall in the return on the firms' productive assets. If, however, banks are increasing their issue of equity capital, then nonfinancial firms may find themselves unable to issue additional equity or rely on debt finance. In this way, when the recession comes, it is made worse by the greater indebtedness of companies. In a recession, the returns on all assets, including those in bank portfolios, deteriorate. To ensure their survival, nonfinancial firms should now be converting debt into equity. But since the deterioration of their assets is obliging banks to raise more equity capital themselves, this bank capitalization reduces the already diminishing pool of equity capital available to nonfinancial firms.

There have been recent proposals to stabilize bank balance sheets by requiring banks to raise the capital-to-risk-weighted-assets ratios over the course of an economic boom. The present fixed capital-to-risk-weighted-assets ratio is procyclical in the sense that, in the course of an economic boom, the liquidity and net worth of balance sheets increase. A fixed capital ratio would therefore fail to discourage banks' risky lending and may even encourage it, because the risks would be less apparent in a boom. The policy of requiring banks to raise capital ratios as a boom proceeds is sometimes referred to as "dynamic provisioning."

There are three objections to this approach. In the first place, the risks that are supposed to evoke higher capital ratios are rather nebulous, and evidenced only by defaults in a recession (if it comes), so that it becomes difficult to enforce higher capital ratios if the boom is prolonged and defaults appear to be reduced.

Secondly, the approach would require banks to drain the available pool of equity capital even more rapidly than under fixed capital ratios, causing a corresponding greater indebtedness on the part of companies and further forcing up the cost of capital that nonfinancial firms could issue. Far from stabilizing banks and the economy, dynamic provisioning would destabilize the economy and the credit system, including banks, by indebting companies more rapidly in a boom or by discouraging company investment, and by these means increasing the risk of companies' defaulting on their debt.

The third problem arises in an international setting in which some banks may have a diversified portfolio of assets spread across countries, some of which are in a boom and some of which are in recession. Such banks would on balance have a much more stable portfolio of loans and could reasonably argue that they should not be required to increase their capital ratios as much as banks exposed only to countries in recession.

A far more effective form of dynamic provisioning would be to require companies (and households with mortgages, if we are to extend our considerations to household debt) to increase their equity capital as a boom proceeds. This would make companies' remaining debt more manageable in the face of a recession, and thereby reduce the probability of default on that debt. The latter in turn would improve the quality of bank assets.

International Bank Stabilization

The arguments presented here apply to the international economy insofar as national financial systems are integrated into an international system. In a situation in which banks have cross-border exposures in the form of assets in other countries, exposures made more risky by the current mix of floating exchange rates and fixed rates in certain regions (for example, the eurozone and associated member states of the European Union), the present Basel Accord and European Commission Directives would require capital ratios even higher than those required if individual bank assets and liabilities were confined to only one country—implying that companies would carry an even greater debt load.

In such an internationally integrated financial system, banks and economies would be much more effectively stabilized if cross-border lending to the private sector were matched by a commitment to lend, in the domestic currency of the bank, to the government of the country in which that private sector is based, in the event that lending to that country were reduced. Thus, if a bank located, for example, in the United Kingdom lends to companies in South Africa, the bank would commit itself to lend to the South African government the equivalent of any reduction in lending by the bank to those companies. In this way, capital outflows would be matched by new capital inflows to governments, which would then be in a position to stabilize the foreign borrowing of banks and companies in their respective countries. By eliciting increased *commercial* bank lending to governments when lending to the private sector is reduced, this requirement would provide a stabilizing mechanism that would be endogenous to commercial bank lending. This provision of an endogenous stabilizing mechanism contrasts with, but also facilitates and strengthens, the usual Keynesian and post-Keynesian stabilizing mechanisms based on government lender-of-last-resort strategies or fiscal intervention.

The government bonds thus issued to foreign banks should be long term, or at least sufficiently long term to avoid repayment pressures on issuing governments in the midst of a crisis. Banks holding such foreign government bonds should be given an option to sell them, after a given period, to a multilateral monetary agency such as the International Monetary Fund at a price mutually agreed upon.

Such a system of advance, or contingent, lending commitments would encourage due caution with regard to cross-border lending, while stabilizing cross-border bank capital flows. It would obviously be least taken up in countries with relatively little private-sector foreign borrowing, such as some of the major OECD countries. However, smaller countries and emerging, developing, and transitional economies, their banks, and their companies could benefit from the greater stability that such a system would bring. In this way, contingent commitments to lend to governments in the event of private-sector lending withdrawals would strengthen and stabilize the international financial system as a whole.

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