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**CONNECTIONS BETWEEN CORPORATE GOVERNANCE,
CORPORATE SAVINGS AND BUSINESS CYCLES IN THE
ECONOMIC LITERATURE AROUND THE GREAT DEPRESSION**

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Abstract

Corporate savings, which could play a major role in producing financial crises, receive scant analytic attention today. By contrast, they saw a glorious period of analysis from the late 1920s to the early 1950s, around the Great Depression.

During the twenties the corporations were accused of contributing to the stock exchange boom by lending out part of their cash balances. In the thirties they were accused of contributing to the stagnation of the economic system by holding excess cash balances.

Two different approaches distinguished the study of retained earnings in the forties and fifties. One approached this phenomenon in connection with investigation into cyclical fluctuations in the economy, while the other analysed the relationship between the rights and interests of the stockholders and those of the management in individual enterprises.

The paper deals with some of these seminal contributions, including those by Sergei P. Dobrovolsky and Friedrich A. Lutz.

Keywords: Corporate Savings, Corporate Retained Earnings, Cash Holding, Effective Demand, Financial Crisis, Corporate Governance.

JEL Classification Codes: E210, E220, E320, E580, G010, G350

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1. Introduction

The financial crisis of 2007-2009 has again highlighted the phenomenon of the corporate savings glut and the partially connected phenomenon of corporate cash holding. These phenomena, which could play a major role in producing financial crises, and some of their specific features, receive scant analytic attention today, whether in macroeconomic or microeconomic analysis frameworks. By contrast, they saw a glorious period of analysis in the 1940s and 1950s, immediately after the experience of the events occurring around the Great Depression.

Indeed, corporate retained earnings reached high proportions during the twenties, fell to a low ebb during the thirties, but again became a significant component of the total savings in the economy in the forties. Furthermore, during the twenties the corporations were accused of contributing to the stock exchange boom by lending out part of their cash balances, and indeed of feeding the financial markets at the expense of the commodity markets. In the thirties the corporations were accused of contributing to the stagnation of the economic system by holding excess cash balances.

The economic literature after the great depression began to deal with corporate saving as a conspicuous phenomenon which determined a very large share of national saving and was increasing in previous decades. It underlined also some evident cyclical determinants in the development of this phenomenon.

Traditionally economists did not deal separately with the corporate saving because they assumed that households, owning corporations, integrated corporate saving decisions in their own saving decision. Yet in the thirties and the forties corporations began to be viewed as particular institutional decision makers, with own specific objective functions. Household sector did not fully pierce the “corporate veil”, and corporations also began to be perceived as decision makers who did not utilise marginal principles in making their investments. In particular, lower investment decisions did not necessarily become higher consumption decisions, but they could also generate liquidity holding.

Thus two different approaches distinguished the study of retained earnings in the forties. One approached this phenomenon in connection with investigation into cyclical fluctuations in the economy, while the other analysed the relationship between the rights and interests of the stockholders and those of the management in individual enterprises.

2. Corporate savings in the literature of the early thirties

In 1922 Knauth estimated that, during the period 1910-19, corporate savings constituted about 25% of total saving and 4% of the national income (Buchanan, 1938). In 1929 Ebersole, Burr and Peterson estimated that, for the period 1916-27, it was 43.7% of the corporate net income.

For the years 1924-28, according to Buchanan (1938), cash dividends paid out in manufacturing corporations varied, year by year, between 50% and 72% of net income. The total amount reinvested during the five years was 33% of the net income.

In 1931, Jewkes was among the first authors to recognize the relevance of corporate saving as a major part of the aggregate national saving. He wrote a note in the Quarterly

Journal of Economics about the influence that financial interests were able to exert on the American industrial structure, creating new concerns which were “too unwieldy” in size to be efficient.

He argued that the periods of cyclical economic expansion were likely to bring overexpansion, too, particularly because of the large corporations which were accumulating ample profits instead of distributing them to shareholders. Indeed, he supported the thesis that, since the early twenties, corporate savings had become a major part of national saving, because it was usual for the large corporations to retain a good part of its net annual income and utilize it for its own expansion.

According to him, in American manufacturing, corporate savings had been about one third of net cash profits in 1925. Furthermore, a report of the Federal Trade Commission showed that, in the period 1920-26 cash dividends had been a very small proportion of corporate surplus (Meech, 1928). The corporations analyzed usually retained about two thirds of their net income for outside investment in other concerns or for their own growth.

In accordance with Veblen (1904), Jewkes thought that the largest corporations were not the most efficient when measured by unit costs or rate of profit. So, according to him, the accumulation of corporate savings had a major role in the tendency for companies to grow beyond the optimum size, for raising capital in this way sidestepped the judgment of the financial markets about investment profitability.

With statistical data analysis, Jewkes found that corporate saving was prevailing in the largest companies. These savings took different forms. A corporation could accumulate profits to increase its physical assets without any change in its outstanding capital stock. But it could also issue stock dividends, and between 1920 and 1927 this kind of dividends represented about 50% of the total corporate savings.

The rate of growth of stock capitalization in the sample of the Federal Trade Commission was greater for the small groups and tended to decline in the larger ones. According to Jewkes, this was evidence that greater size brought increased resistance to further stock expansion. But even though the largest corporations grew less than the smaller, they were equally inclined to use accumulated profits to provide the means for expansion. Thus Jewkes supposed that in some cases stock dividends might merely represent a process of “watering” capital and not real savings. Indeed, corporations might transfer a part of corporate savings corresponding to stock dividends into the form of bonds, in which case the stock capitalization did not coincide with increase in their material assets.

Furthermore, between 1920 and 1927 some corporations issued an amount of stock dividends greater than the actual increase in outstanding stock capitalization. Jewkes explained this phenomenon assuming that in a period of depression following a period of prosperity, in which stock dividends were issued, corporations wrote down their stocks, following the reduction in their earnings.

Jewkes also thought the practice of corporate saving were an automatic operation that drove the large corporations to move on to dimensions which were not justified at the level of efficiency.

Means (1931) criticized some conclusions reached by Jewkes in his note. He argued that Jewkes’s figures exaggerated the amount of corporate savings because of an incorrect use of data reported by the Federal Trade Commission. Thus, the "total

surplus" that remained undistributed in each period, which Jewkes had assumed to represent corporate savings, included surplus already accumulated at the beginning of the period as well as earnings made during the period. Therefore, the corporations analyzed saved not 66% of their net income, but only 48% of it.

Furthermore, Means thought that this level of corporate saving was usual only for the corporations "which were very much above the average in prosperity", or roughly 5% of all corporations. He also thought that Jewkes failed to group together all the corporations with capital stock over ten million dollars, because corporations with about ten million of capital stock were small in comparison with modern big corporations and their performance was quite different from that of the latter. In 1920, according to the data of Federal Trade Commission, only thirty corporations with capital stock of over forty million dollars had issued 24.2% of all the stock dividends of the sample.

Furthermore, Means observed that the tendency of the rate of growth to decline as the size of company increases was refuted when the largest companies were separately dealt with. Indeed, the thirty largest corporations showed an average growth of 90%.

He also argued that studies of optimum size have dealt with the size of manufacturing or distributing units, not with the size of companies. Thus, there was no justification for applying conclusions based on the size of a productive unit to a corporation which may own a multitude of such units. Furthermore, he thought that it was quite possible for a corporation to grow so fast as to become inefficient, yet in this case the result did not come from the size but rather from the hasty manner of reaching it. So, he thought that Jewkes could be right in supposing that the slower growth of the larger corporations showed incapacity to absorb additional capital at profitable rates, but, because the sample included only corporations that have had earnings sufficient to warrant the declaration of stock dividends and, therefore, were far above the average in profit making capacity, the slower growth could also be explained assuming that as corporations increase in size they tend to become more stable.

Buchanan in 1938 underlined that American corporations had the common practice of reinvesting a large part of their annual profits and raised the question as to whether or not this practice worked out in the interests of the shareholders. He also thought that the "marginal principle" of capital investment played little part in management decisions.

In fact, in accordance with this principle, managers should have been maximizing the net returns through time to the shareholders and no part of the profits should have been reinvested inside the company unless the return on the increment of capital had been at least as large as could be on the same capital invested outside of the company. But many evidences were quite different.

Buchanan argued that the major reason for which corporations did not pay as dividends the full amount of the profits was connected with the cash position of the company. But insufficient cash did not explain dividends paid consistently below earnings over a period of years showing positive net earnings.

Thus he thought a more convincing motivation was that corporations wish to accumulate a surplus credit to face expected losses in subsequent periods without eating into the original paid-in capital. But, once again, to achieve a surplus credit by means of additional capital is against "marginal principle", unless this capital could earn as much within the corporation as elsewhere.

According to Buchanan, corporations can also reinvest a large part of their profits during expansion periods in order to stabilize their dividend rate through periods of prosperity and depression. But to achieve this end, the reinvested profits must be kept in a relatively liquid form.

Buchanan underlined the fact that, at the time he was writing, many authors had already stressed the separation of ownership and control in large corporations. Thus he believed that, under these conditions, there was no justification in assuming that dividend policy was primarily made in the interests of the shareholders. If the management group was a professional one, they would have a rather strong incentive to increase the size of the corporation, expecting that their salaries to be proportional to it. If, on the other hand, the management group enjoyed a profit-sharing contract, it would have a direct incentive to increase the total investment under its control. Furthermore, the management could derive bigger "psychic income" from controlling a larger company.

Thus, according to him, in large corporations the management had an interest in retaining as large a part of the profits of each period as was consistent with the shareholders' regular rate of return on their financial investment. During the twenties many corporations could save all profits and satisfy shareholders' regular stock dividends. Whether it is rational or irrational to retain the profits depends on the marginal returns from increments of investment.

Furthermore, Buchanan thought that it might be usual for many corporations to end their life with a gradual process of disinvestment, retrieving as much as possible of the original shareholders' capital in the form of liquid assets.

In 1938 Buchanan "attempted to apply the accepted economic principles of capital investment to the problem of dividend distribution". If dividend declarations by the boards of directors were made on this basis in expansion periods, then the directors should have estimated the returns on the additional investment in their companies to be at least equal to, or greater than, the rate of interest.

The empirical data suggest that during business expansion phases almost all corporations followed the policy of paying out as dividends an amount less than their profits. This could mean that, on the basis of the theoretical mainstream, almost all the directors believed that the marginal productivity of capital in their companies exceeded the rate of interest. But Buchanan thought that this theoretical conclusion was open to suspicion, and insofar as this theoretical hypothesis failed to find confirmation, the result would be misdirection of capital investment.

Thus he more reasonably believed that corporate directors did not usually consider the dividend policy in marginal terms at all. Habit and custom played a major part and had led directors generally to apply rules of thumb, relevant and useful in many cases, to almost all corporations.

He also believed that the reinvestment of profits in liquid assets during business expansion periods was nevertheless desirable since it could easily maintain the level of dividends during depression periods.

3. Corporate savings according to Dobrovolsky

Dobrovolsky first dealt with corporate savings in 1945, in an essay published in *The American Economic Review* on the connection between this phenomenon and business cycles.

He believed that corporate savings represented a major part of aggregate saving. Thus analysis of the corporate propensity to save (the ratio between corporate saving and corporate net income) had considerable importance.

He begins his article observing that the effect of corporate savings on cyclical swings depends on their amount, the kind of assets in which they are invested and the dissavings made during depressions. All these factors depend, on turn, on corporate governance.

According to him, at the time he was writing most of the analysts took it that corporate savings enabled firms to improve their financial strength during the periods of business expansion, increasing their power of resistance to the adverse events during the periods of business depression. Others, in contrast, contended that they tended to intensify the cyclical fluctuations.

In this analytical environment, Dobrovolsky set out to examine, on a theoretical plane, the economic significance of the surplus accumulation process during the periods of business expansion and that of the reverse process of corporate dissaving during the periods of business depression.

He believed that accumulation of corporate surpluses increases the aggregate saving and makes it more difficult to maintain economic equilibrium at a high-income level. Indeed, insofar as corporate savings lead to accumulating cash balances, they generate hoarding, contributing to diminish the effective demand. But also investment of the retained earnings in operating assets may jeopardise the economic equilibrium because of insufficient investment outlets for individual savings.

This observation, obviously, does not consider that variations in the rate of interest could adjust saving and investment decisions. Thus it shows just how widespread the new Keynesian theory of the rate of interest as mere monetary phenomenon was among the American economists in these years.

Dobrovolsky observes that some contemporary economists thought investment of retained funds could be "unwise" because not submitting competitive bids in the capital market enables the management to follow speculative or prestige motives, which can lead to social misallocation of economic resources.

According to other authors, corporate savings gave management greater scope in investing funds, enabling it to embark upon new projects with important technical improvements and innovations, which could not easily be financed with external funds. Furthermore, corporations may reinvest their earnings without as much concern for the rate of return as would be the case if the funds were raised from the capital market.

Dobrovolsky believed that the aggregate propensity to save would be lower if corporate net earnings were completely distributed among shareholders, because it is improbable that the greater income of the latter would be totally saved.

But retained corporate earnings could also increase the propensity to invest, because managers, thanks to their better knowledge of market potentialities, may be able to find new investment opportunities that would not appear attractive enough to the financial

markets. All this would not create conditions for disequilibrium between aggregate saving and investment.

Part of the dividends may obviously be hoarded by the stockholders, too. But the major part must be spent on goods and services, contributing to the aggregate effective demand.

Thus the only problem for a deficit of aggregate demand could arise from a policy of retention oriented to building up cash reserves.

Statistical evidence did not show any tendency to accumulate cash during the phases of economic expansion in the early decades of the 20th century. Instead, this tendency was evident in the periods of economic depression.

The financial markets are subject to waves of excessive optimism as well as excessive pessimism. So financing corporations from the capital market does not eliminate misallocation of resources.

The direct reinvestment of retained corporate earnings could thus implement a use of funds which would not find an outlet for them through the capital market. This could produce a greater degree of utilization of resources rather than of their misallocation.

Thus, the policy of retention of earnings may reduce aggregate demand over the expansion phase of the cycle but, on balance, it should not necessarily have an adverse influence.

During the periods of depression, in most corporations the accumulated undistributed earnings of the past years were reduced due to payments of dividends in excess of current earnings, or to compensate the current deficits.

Defenders of this corporate policy claimed that this kind of dissaving in times of depression helped to maintain the aggregate volume of payments and to mitigate business contraction and unemployment.

From 1929 to 1935 American corporations paid out 34.5 billion dollars in excess of their receipts for wages, taxes, dividends and other obligations. According to Dobrovolsky, this fact created the opinion that during the periods of depression corporations were able to put into the economic system large amounts of cash over and above the amounts flowing into their cash accounts.

At the end of 1929 the aggregate amount of cash balances of non-financial corporations in the US was 7.3 billions, while at the end of 1935 it was 6.7 billions. Thus, payments exceeded receipts by 0.7 billion over this period. Usually, business enterprises can inject new cash into the economy without diminishing their cash balances thanks to expanding bank loans. But from 1929 to 1935 American corporations also reduced their bank indebtedness and thus had to reduce their cash holding because of the excess of total costs plus dividends over total revenues.

The cash holding of an enterprise is merely the result of the difference between receipts and payments. Corporate dissaving, resulting from revenues insufficient to cover costs, may be accompanied by an increase in corporate cash holdings (when cash receipts exceed cash payments) just as well as by a decrease in corporate cash holdings (when cash receipts fall short of cash payments). When the former case occurs, accumulation of cash goes on concurrently with partial dissipation of the invested capital. When receipts fall off during a depression, corporations can sustain the level of payments by drawing on their cash holdings, selling marketable assets or borrowing new funds on the financial markets or from the banking system.

Payments in excess of current receipts depend on profit considerations. Yet even though most of corporations were choosing to operate in "deficit financing" to maintain the level of employment, they would need financial help from the government or the banking system, for the combined holdings of cash and marketable securities constitute only a small percentage of the total annual cash outflows. Furthermore, massive sales of corporate security portfolios within a short span of time would be impossible without organized intervention by the financial authorities. Moreover, during a depression, new borrowing on a large scale would not be available without a specific public policy of support.

In a depression period, payments are cut at the same rate as receipts fall off. At the outset, contractual obligations coming from the expansion period can partially be met by decreases in liquid assets. But progressively, the payments are usually rapidly adjusted to the falling receipts. Most large corporations remain in a strong liquid position, because their principal problem is to balance costs and revenues, and the former usually exceed the latter, even though payments and receipts are balanced, because of depreciations.

The replacement of fixed capital can be slowed down or temporarily interrupted without significant effects on the current production process. So corporations can maintain their other payments by cutting down the replacement of fixed capital and also in inventories.

Because depreciation accruals figure as a component of total costs, these can be reduced by diminishing the scale of production, but this will not necessarily entail a growth in profits. The loss can be the same whether the company maintains its previous scale of production or whether it stops production and dismisses all its workers.

If all variable costs involve cash outflows and the revenue coincides with cash inflows, then also the cash balance will be the same in both situations.

Obviously, corporations usually try to minimize their losses by fixing the level of production at some intermediate point between the original level and total suspension of the activities.

If corporations maintain the scale of production as before, but their fixed capital is undermaintained, then purchases from the capital goods industries are reduced. The resulting dissaving reduces effective demand at the expense of current production and employment.

The statistical evidence has shown a positive correlation between the amount of business dissaving and the amount of employment. Dobrovolsky's interpretation was that firms usually adjust the scale of production to the expected changes in demand for their products. When the demand was expected to fall, production was curtailed and employment and the flow of payments were consequently reduced, leading to a further decline in demand. As a result, both dissaving and unemployment were growing as the depression proceeded. When a new particular combination of factors produced a change in the direction of movement of the effective demand, the process was reversed. The level of production was adjusted upward, generating increases in employment and the flow of payments so that demand was further stimulated, in a virtuous circle as recovery went on.

The question was whether the existence of corporate savings improved the ability of corporations to incur dissaving in bad years. Obviously, corporate saving may be of

importance to this end only if it is kept as cash holding, because in this case it can be utilized to cover disbursement if the corporation is short of cash and decides to maintain its volume of production.

The importance of the surplus account could be analyzed comparing two companies equal to each other in all respects except the proportion in equity of paid-in capital and corporate savings.

Ruggles (1939) deals with the case in which two companies start with equal amounts of capital, with no difference in the amount of outside financing, but one of them regularly saves part of its net earnings while the other distributes all net earnings to shareholders. She argues that, after a certain period, the former will have better equipment and lower costs, and so will suffer less during a business depression. But this result depends on the inequality of the capital invested by the two firms at the end of the period considered, not the different structure of equity.

Dobrovolsky thought that in the real economy the younger and the smaller firms usually find it difficult to obtain external funds and, therefore, the companies which are able to save more of their profits are in a better position to grow, to improve the quality of their equipment and show better performance during the different phases of the business cycle than firms with a smaller saving capacity.

Furthermore, corporations with strong savings could enjoy a better credit standing and, therefore, it could be easier for them to obtain new funds from financial institutions.

According to Dobrovolsky, the case in which two companies are compared that have equal total equities but unequal savings has to be distinguished from the case in which two companies are compared that have equal capital stocks but different amounts of total equity, because of a difference in their corporate savings. Companies that have the same paid-in capital but a larger surplus than others would obviously be preferable customers.

Dobrovolsky observed that previously accumulated corporate savings were, as a rule, a necessary legal condition for the payment of dividends in profitless years. Dividends in such periods may or may not increase the aggregate flow of payments, depending on the source from which the funds are obtained. If they come from previous cash holdings, we may expect a favorable effect on the aggregate flow of payments. But if corporations pay dividends resorting to sales of securities that they hold in their portfolios, the effect may be different.

If securities were sold to subjects (individuals or firms) who would otherwise hoard the money, or if they were sold to banks against additional money, favorable effects would be expected. If, on the other hand, they were sold to operators in the place of goods or services, no significant effect could be expected.

If dividends were paid out by curtailing expenses for employment and undermaintaining fixed capital, then the effect would likely be unfavorable, because the stockholders would have less propensity to consume than the workers.

Dobrovolsky underlined that during the depressions of the first decades of the 20th century, large corporations had accumulated large amounts of cash not required for current operations. They had, as a rule, reduced their operating assets but strengthened their liquidity holding. Therefore, their ability to distribute dividends in profitless years had not been maintained at the expense of other payments but thanks to these reserves.

Yet the accumulation of inactive cash was intensified also in the absence of dividend distributions. Cash holdings, for example, may make it easier for corporations to continue production in depression periods despite losses. Sometimes, in a long-run strategic perspective, corporations may engage in operations whose immediate financial results do not even cover the variable costs. This kind of policy is certainly more probable if there are strong liquid reserves deriving from previous corporate savings.

Thus, according to Dobrovolsky, it seems that high corporate savings and accumulation of large cash holdings in periods of cyclical expansion had led to creating a buffer to sustain larger amounts of cash disbursement and of employment in periods of cyclical contraction.

But large amounts of cash remained inactive throughout the periods of depression. According to Dobrovolsky, most of the large corporations came out of such periods with the surplus account still showing a very substantial credit balance and quite a strong liquidity position.

Dobrovolsky also wondered whether the financial interests of the shareholders are reconcilable with corporate saving and its use for production stabilization purposes.

He observed that the economic literature on corporation finance had always emphasized that, the shareholders being the owners of the entire corporate net income, retention of part of the latter by the management deprives the shareholders of the right to decide for themselves the best allocation of the amounts concerned. Thus some economists concluded that corporate saving was against the shareholders' interest while others thought that the freedom of the board directors in employing these funds should be restricted.

Dobrovolsky thought that, while it is true that from a legal standpoint stockholders are the owners of the entire net income, there is no economic justification to identify their claims to the retained net income with the effective distributed parts of it. Indeed, he said, corporate net income is a return on the equity capital invested plus a reward of an entrepreneurial nature. This latter part is usually considered as a reward for organizing and managing the business and for taking on risk. And, even though the issue is controversial, some argue that the entrepreneurial function is performed by the managers.

Dobrovolsky underlines that in the early decades of the 20th century there was a substantial difference between the behaviour of modern corporate shareholders and that of the proprietary capitalist-managers of non-corporate enterprises of the earlier phase of capitalism. He agreed with the view that the essence of the entrepreneurial function lies in active decision-making rather than passive responsibility-taking. Thus he deemed that the typical behaviour of shareholders was radically different from that of managers, and therefore he agreed with Berle and Means' idea that in the new century a new form of conflict had arisen between corporation "beneficial ownership" and "control". The shareholders kept only the "beneficial ownership", while "control" was "turned over by them to the directors and officers". So, «the traditional logic of profits, when thus applied to the modern corporations, would indicate that if profits must be distributed either to the owners or to the control, only a fair return to capital should be distributed to the "owners"; while the remainder should go to the control as an inducement to the most efficient ultimate management» (Berle, Means, 1936).

According to Dobrovolsky, the actual practices of distribution of profit in American corporations differed from Berle and Means' impression of them, but the statistical evidence suggested that the division of functions between "beneficial ownership" and "control" had produced the division of corporate net income into corporate savings and dividends. For a long time, cash dividends on common stocks of American corporations had represented a yield considerably higher than that on corporate bonds. As Cowles Commission showed, the ratio of cash dividend payments to stock prices averaged 5% a year, against the average return from high grade bonds of about 4.2%.

This means that the owners of common stocks had been receiving as cash dividends not only a pure interest on the invested capital, but also a reward for the risk involved in the investment. Instead, the retained part of profits had not become income for the managers. Legal title to retained profits had remained with the shareholders, and the accumulation of surpluses provided an additional reward to them through appreciation of stock prices.

The first question was whether there was a definite pattern in the relationship between corporate net income and corporate savings. During the expansion phase of the 1920s corporation managers were believed to follow the rule of thumb that it was a sound principle of corporate finance to retain 50 percent of net income. This rule should have produced a well defined and stable pattern of corporate saving. Yet the data on manufacturing corporations indicated a different scenario.

The statistical data showed a fairly clear pattern between corporate net income and corporate savings. In general, greater corporate net income had been accompanied by greater dividends as well as greater savings, but the proportion of income retained had not been a fixed percentage, varying with the level of corporate income.

In fact, in the late 1930s, in some large corporations retention of 30% of net income was consciously held to be an appropriate long-run policy.

Thus, the question arising immediately then was whether the variations in corporate savings were related to specific changes in business or financial conditions. It was important to understand to what extent these variations had been associated with changes in corporate profitability and in corporate investment.

Dobrovolsky notes that, in the short run, variations in net income were usually closely correlated with variations in the rate of return on capital invested. But in the long run there was no close relation between the two.

Since external investors are usually greatly interested in the rate of return on their capital, the corporate ability to retain income depends on the ratio between its net income and the owners' capital.

Econometric analyses showed that corporations began to save when the rate of net income was about 5%, while they had a net dissaving below that level.

Above this level, a variation in the rate of net income of 1% was associated with a change of 0.8% in the same direction in the rate of corporate savings. So, while the corporate marginal propensity to save was stable, the proportion of corporate savings to net income varied with the level of the latter.

But over the period 1924-43 there was no evidence of a long-run trend for the corporate "propensity to save", at each net income level, to increase or decrease.

Small declines in profitability in 1926 and 1927 determined pronounced reductions in the rate of corporate saving, while the considerable recovery of profitability in 1928

and 1929 produced relatively small improvement in the proportion of corporate savings to net income.

These movements may be partly accounted for by an increase in dividend requirements at the end of the twenties. After a succession of good years, stock market prices were rising much more rapidly than profits, and distribution of a greater proportion of them among the shareholders was a way to offset the fast increase in the price-dividend ratio. But larger dividends were also possible because of a simultaneous relative decrease in the requirements for corporate accumulation of capital.

But, according to Dobrovolsky, also the managers had obtained advantages from the policy of corporate saving. They were provided with new financial resources avoiding the procedures needed for new external funds and without any agreement on the purposes for which they should be employed. Furthermore, in the case of losses connected to faulty investment, the use of internal funds produced a less unfavorable reaction on the part of creditors and shareholders.

Thus Dobrovolsky believed that corporate saving shifted some benefits from the "beneficial ownership" to the "control group", as a consequence of the division of functions between these two groups of economic operators. Thus, according to him, it was more in keeping with the relationships within corporations.

Dobrovolsky concluded that, as long as the dividends paid were comparable with the return on senior securities, the policy corporate saving was not unfair to the shareholders. It could be unfair to them only if corporations made it a practice to maintain a larger volume of payments during the periods of depression, because such a practice might produce a reduction in surpluses and a greater loss of earning power at the end of such periods. But even in this case, he thought that this policy should be sustainable if at the end of the period the company was still able to bring a satisfactory return on the paid-in equity funds.

4. Cash holding according to Lutz

The book on Corporate Cash Balances by Friedrich A. Lutz originated with a special inquiry under the Financial Research Program's War Financing Project. It was stimulated by a spectacular growth in corporate cash balances since the outbreak of World War II and had the task of analysing the significance of this phenomenon to the functioning of the financial system.

The work immediately found a connection with contemporary theories of the value of money and of the role of money in business fluctuations, looking for the role which the behaviour of cash balances of corporations could have in them.

In the United States, since the beginning of the war, bank business deposits had increased sharply. Between the end of 1939 and the end of 1944, the demand deposits of all the commercial banks increased by 120% and about 63% of them were held by domestic business enterprises, which indicated the great relevance of cash balances held by business sector.

Lutz underlined that cash balances give rise to at least two serious problems. First, they could affect the volume of payments and pose problems for monetary management. Second, they could have relevant implications for the financing of government

expenses, because the greater their amount, the smaller the amount of government bonds that business bought.

The cash balance policy of enterprises had already attracted attention in the late 1920s. At that time corporations utilised part of their previous accumulated cash balances to buy securities in the stock exchange market in order to take profit from the high call loan rate. So they were accused of contributing to the boom on the stock exchange, but also of feeding the financial markets at the expense of the other markets.

In the 1930s, corporate cash holdings were again an object of heated discussion because, according to some economists, corporations held "idle" cash (cash balances in excess of current operation needs), contributing to the stagnation of the economic system.

Lutz's study set out to analyse how cash balances had actually behaved over the three decades from 1914 to 1943. It was based on annual financial statements of samples of manufacturing corporations in two size groups, large corporations, on one hand, and medium-sized and small companies, on the other hand. The assets of the sample of large manufacturing corporations amounted to about 45% of the assets of all large manufacturing corporations in the United States.

Lutz attempted to discover whether there was a definite pattern in the behaviour of corporate cash balances over the period 1919-39 and, if so, what were its determinants. To this end he analysed cash balances plus marketable securities in relation to payments. He also studied the movements of corporate cash balances against changes in the total means of payment.

During World War I corporations bought marketable securities on a large scale, so that at the end of the war the liquidity position of large manufacturing corporations was higher than at the beginning.

After the war, marketable securities continued to be a significant part of corporations' assets.

According to Lutz, all the large corporations utilised outside funds to finance their new investments during the boom that followed the war, but in 1920s large manufacturing corporations held no more cash than was required by their payments. Only in the depression years did the ratio of cash plus marketable securities to payments rise sharply. This ratio diminished from 1933 to 1937, and then rose again in 1938, because of a new business contraction.

Thus, according to Lutz, the ratio of cash plus marketable securities to payments shows a rise in periods of business contraction and a fall in periods of expansion as a rule. The movement of these free liquid funds showed an inverse correlation with the profit rate of the large corporations.

During the 1930s, the large manufacturing corporations held "free" liquid funds (funds not justified by the volume of their payments). Lutz therefore deduced that they hoarded money. The major reason for this accumulation of "free" funds during the early thirties is that, at the end of the twenties, the large corporations were largely independent of bank credit, so that their bank debts did not absorb the "surplus" cash originated through liquidation of inventories and receivables during the depression.

The situation had been totally different in 1921, when the large manufacturing corporations were heavily indebted to the banks. At that time no "free" liquid funds made their appearance. This behaviour suggests that in a system in which companies are

not largely indebted to the banks, business fluctuations may be reflected in a change in the velocity of circulation of firms' deposits.

The increase in cash holdings never absorbed more than 3.6% of the total cash receipts of the corporations, and the decrease never financed more than 2.7% of the cash payments. The cash balance was constantly fed on current account, by the difference between receipts from sales and operating expenditures. Instead, the cash receipts from sources other than sales (increases in funds from outside) were always less than the non-operating expenditures (dividends and expenditures on fixed equipment).

According to Lutz, during the period of depression in the thirties, medium-sized and small corporations had a small increase in their cash holdings, because great losses and the retirement of bank debt absorbed the liquid funds that would otherwise have been accumulated. Thus in the thirties, "hoarding" was mainly a phenomenon of large manufacturing corporations.

In periods of business contraction over the period 1914-43, corporations' cash balances were fed by partial liquidation of inventories and receivables and by the postponement of replacements for fixed equipment. Most of the additional cash was paid out mainly through distribution of dividends.

As a consequence, in the thirties large manufacturing corporations' cash balances tended to rise in relation to other assets during periods of business contraction, and to fall during periods of expansion. But, in the same years, this cyclical pattern was not followed by the medium-sized and small manufacturing concerns.

The corporations' cash balances followed the general cyclical pattern shown by the total means of payment, so that the ratio of cash balances to the total means of payment was relatively stable.

5. Conclusions

Thus the American economic literature from the twenties to the forties underlined the relevance of corporate saving as a major part of the aggregate national saving.

The growing corporate saving was generally viewed as a direct consequence of the separation of ownership and control in large corporations. Indeed, investment of retained funds sidestepped the judgment of the financial markets and enabled the management to follow speculative or prestige motives.

Most of the writers believed that the recent changes in corporate governance had transformed the corporations into a new kind of decision-makers, which radically changed the behavior of aggregate saving.

Furthermore, some authors thought that corporate savings tended to intensify the cyclical fluctuations. Indeed, insofar as corporate savings led to accumulating cash balances, they generated hoarding, contributing to diminish the effective demand. Most of the authors believed that the reinvestment of profits in liquid assets during business expansion periods were made to maintain the level of dividends during depression periods. Thus the relevance of the effects of corporate savings on cyclical swings depended on their amount, the kind of assets in which they are invested and the dissavings made during depressions. All these factors depended, once again, on the features of corporate governance.

References

- Berle, A. A. Jr, Means, G. C. (1936), *The Modern Corporation and Private Property*, New York, The Macmillan Company.
- Buchanan, S. (1938), "Theory and Practice in Dividend Distribution", *The Quarterly Journal of Economics*, 53 (1), 64-85.
- Dobrovolsky, S. P. (1945), "Corporate Retained Earnings and Cyclical Fluctuations", *The American Economic Review*, 35 (4), 559-574.
- Dobrovolsky, S. P. (1951), *Corporate Income Retention, 1915-43*, NBER.
- Ebersole, J. F., Burr, S S., Peterson, G. M. (1929), "Income Forecasting by the Use of Statistics of Income Data", *Review of Economic Statistics*, 11 (4), 171-196.
- Jewkes, J. (1931), "Stock Dividends in Large and Small Companies", *The Quarterly Journal of Economics*, 45 (2), 352-357.
- Knauth, O. W. (1922), "The Place of Corporate Surplus in the National Income", *Journal of the American Statistical Association*, 138 (18), 157-166.
- Lutz, F. A. (1945), *Corporate Cash Balances, 1914-43: Manufacturing and Trade*, NBER.
- Means, G. C. (1931), "Stock Dividends, Large Scale Business, and Corporate Savings - A Criticism", *The Quarterly Journal of Economics*, 45 (3), 536-540.
- Meech, S. P. (1928), "Report of Federal Trade Commission on Stock Dividends", *The Journal of Business of the University of Chicago*, 1 (4), 485-488.
- Ruggles, C. G. (1939), "The Relation of Corporate Surpluses to Income and Employment", *The American Economic Review*, 29 (4), 724-733.
- Veblen, T. (1904), *Theory of Business Enterprise*, New York , Charles Scribner's Sons.