The Role of Household Saving in the Modern Economy

The special role of household saving in the modern industrial economy may well be worth considering, if only because of certain features suggested by available data: Expressed as a ratio of GDP, these savings seem to show an increasing trend in several countries in the last two decades. Again, observation of the same ratio seems to show that it is rather inflexible in face of cyclical changes, responding little or sometime even perversely to a fall in incomes. In this respect it reacts quite differently from business savings.

But household saving, unless it is directly invested in dwelling houses, must be lent out and therefore must be borrowed by somebody else, either by business, or by government or by the rest of the world. It will be argued in this paper that an increased saving of households depresses business profits and leads to government deficits. From the point of view of full employment policy household savings are more troublesome than business savings because, unlike the latter, they do not stimulate investment decisions. In the light of these observations the question of functional distribution (the share of profits in full employment income) ceases to be the only matter of concern, and the question of the inequality of personal incomes — which is presumably much relevant for the personal saving ratio — moves into the foreground. Thus consideration of the trend of household saving may involve a certain shift in attitudes of economists interested in full employment.

Terms and Concepts

To begin with the use of terms has to be settled if only in a rough and ready way. Ideally we want to speak about household saving, that is private domestic saving outside business. The national accounts give us *personal saving* which includes the saving of non-incorporated business

and farmers. When an attempt is made to separate the household from the business saving the procedure is somewhat artificial and the results problematic. No wonder, since it is conceptually not easy to separate a small business or farm from the owner's household.

Ultimately it is not the saving but the lending of households which is relevant for the following discussion. We have to deduct the real ("physical") investment (for the household proper this is investment in dwelling houses) from the saving to obtain the net lending (net acquisition of financial assets, or net financial saving).

The following model of accounts should clarify the concept:

Consumption	Disposable income
Saving gross of increase in consumers' debt	Net increase of consumers' debt (consumers' credit and mortgages)

After deducting increase in consumers debt on both sides we obtain on the left side the *saving net of consumer's debt* which corresponds to the usual definition of personal saving which is thus the balance of gross saving and consumer's borrowing (the outcome of saving by some people and dissaving by others).

Taking into account the real investment we obtain

Consumption	Disposable income
Real investment (dwelling houses)	Increase in consumers' credit and mortgages
Acquisition of financial assets	

If we now deduct the increase in consumer's credit and mortgages on both sides we obtain on the left side the *net acquisition* of *financial assets* (net financial saving) which is the balance of acquisition of financial assets and borrowing.

The sum of the net financial saving and the real investment is the net household saving.

While the national income accounts start from disposable income, consumption and real investment, the flow of funds analysis lists the acquisition of the various financial assets and the borrowing directly. Between the results of the two methods of arriving at the net lending of households there arises a statistical discrepancy.

The Basic Identity

Use is made in the following of a simple identity which can be verified from the national accounts:

Gross business real investment *plus* exports *plus* government spending on goods and services *plus* household real investment in dwelling houses *equals* gross business saving *plus* household saving *plus* imports *plus* government revenue.

In algebraic terms:

$$I + X + G + H = S_B + S_H + M + T \tag{1}$$

This is the savings-investment identity for an open system. Rather than in net terms (foreign balance, budget deficit) as with Kalecki [1] it is formulated in gross terms as it was in R.F. Kahn's paper of 1931.[2] This is motivated by the fact that the net magnitudes on the left side (investment, foreign balance, budget deficit) are not independent of each other, whereas investment, government spending and exports can be so considered in the short run. This makes the gross formulation more suitable for a dynamic period analysis. We shall, however, use a net formulation of the following kind:

$$(S_B - I) + (T - G) + (M - X) + (S_H - H) = 0 \tag{2}$$

The terms in brackets are the borrowing (−) or lending (+) of the various sectors: Business, government, households and the rest of the world. This lending-borrowing identity is the analogue of the saving-investment identity in the flow of funds analysis where only transactions are considered, so that for example, the investment financed by business from its own funds does not appear in the balance sheet.

From the lending identity (2) it follows that a net household lending must find its counterpart in borrowing by business, or by government or by the rest of the world (this corresponds to a positive foreign balance which in the equation has a negative sign).

To return to equation (1): The terms on the left side are the active ones, since they are pre-determined by past decisions; the terms on the right adjust themselves passively. The meaning is that the sum of

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[1] *Theory of Economic Dynamics*. London 1954 Ch. 3 p. 48.
[2] The relation of home investment to unemployment. *Economic Journal*, June 1931.

investments, public spending and exports is jointly "financed" by the sum of savings, taxes and imports. While this holds for the system as a whole the individual sectors — business, the budget, the foreign balance — do not necessarily balance out. The overall balance is secured by a certain level of demand — i.e. of the GDP. But for the balance in each of the individual sectors a different level of GDP may be required. This involves some arduous tasks of harmonizing economic policy because in each sector there is a certain target for its indebtedness; ultimately this concerns the *stock* of debt and assets in relation to each other, but their management involves certain policies concerning the ratio of borrowing or lending in the *flows*. For example, business wants to avoid a debt ratio in excess of a certain limit, and therefore keeps the proportion of borrowing in the flow of investment within limits; governments want to limit their debt, although no clear limit has ever been defined, but a balanced budget is often regarded as the long term norm; for the foreign sector again the debt is feared because of the effect on future balances; a limit to the debt and a target for the current foreign balance is again only vaguely defined. For the net lending of households there exist hardly any rational targets.

The immediate reaction in the various sectors to a change, for example a fall, in demand is as follows: It increases net borrowing by business (owing to a fall in cash flow), by government and by the outside world (increased surplus in foreign balance). The action on household saving is less clear.

An indirect response in any of the sectors will arise from policy reactions designed to correct the changes which have taken place. The chain of events which follows from anything which upsets the financial flows is very hard to analyse in general terms. The policy reactions are scarcely predictable: Sometimes — especially in the foreign sector — there are over-powering outside influences which dominate the behaviour.

Thus a treatment of these interactions will have to start from historically given situations, and whatever concrete patterns there may be will depend on specific constellations and concomitant circumstances.

Data on Household Saving: Methodological Remarks

In Table 1 data are presented to illustrate the trend of saving of households as a ratio of disposable income, and of their financial surplus as a ratio of GDP. Comment on these data must be preceded by a mention of the statistical problems involved in getting them.

TABLE 1

HOUSEHOLD SAVING AND LENDING

	U.S.	Germany	France	Italy	U.K.	Netherlands	Japan	Canada	Austria
	H	H	H	H	HB	HB	H	H	HB
1. Household Saving as p.c. of disposable income.									
1960-64			12.0		7.8	13.3			
1965-69			12.1		8.4	14.6		6.4	
1970-74	7.9	14.1	13.8	20.9	10.4	15.5	20.2	8.1	
1975-79	6.3	13.4	13.9	22.7	12.4	13.1	21.4	10.8	
2. Households' lending (net acquisition of financial assets) in p.c. of GDP.									
1960-64	3.1	5.8			1.9				
1965-69	4.4	7.1	2.6		2.5		8.4	2.2	
1970-74	5.0	8.2	3.6	13.3	3.6		9.6	3.6	5.6
1975-79	4.7	7.6	4.8	15.5	5.7		10.6	4.4	8.4

H : Without non-corporate business and farming
HB: With non-corporate business and farming

Sources: Great Britain: *Economic Trends* (GDP at factor cost)
Austria: Estimate by Peter Mooslechner (GDP at market prices) from MOOSLECHNER P., NOWOTNY E.: *Gesamtwirtschaftliche Finanzierung und öffentliche Verschuldung*, Wien 1980. Saving data for all other countries and lending data (GDP at market prices) for France and Canada: *OECD National Accounts*. Lending data for other countries: *OECD Financial Statistics*.

The system of national accounts does not contain separate accounts for farmers or for non-corporate business; these sectors are combined with households into one "personal account". This account therefore exhibits under "personal saving" the savings of farmers and of non-corporate business in addition to those of households. The latter can only be separated by means of an artificial concept: It is assumed that the farmer and business sector retain as much of their earnings as is necessary to keep their capital intact; any saving in excess of depreciation i.e. any *net* saving is attributed to the household sector. The personal savings given in the U.S. national accounts (department of Commerce) in fact correspond to this concept of household savings (Table 1) because they are arrived at after deduction of depreciation (including capital adjustment, i.e. a correction for inflation). This procedure is not without its drawbacks, however, because depreciation is a rather artificial concept and especially capital adjustment can introduce, in times of inflation, a good deal of distortion into the saving estimates. From this point of view it may be preferable to work with saving gross of depreciation, as is done in Britain (*Economic Trends*; these are the U.K. data in Table 1). That in this way the savings of small business and farmers are included is a disadvantage of secundary importance; this especially since we are really interested only in the financial surplus; we may be content, in default of anything better, to have this for an enlarged personal sector, as long as it does not include the greater part of business, and therefore reflects typically household rather than business behaviour.

The inclusion of the farmers and non-corporate business in the "personal" sector will be more problematic in countries where these sectors are comparatively large such as in Italy. These countries have a very high saving ratio. Even the attempt to correct it by deducting depreciation leaves the ratio still very high: In fact, small businessmen and farmers, for economic reasons, save much more than employed people, so that the relatively large weight of those groups in the household sector in itself tends to increase the saving ratio.

While the financial data may be included in the national income accounts (as the SNA envisages), they are sometimes, as in the U.S., treated in a separate system of accounts, the flow of funds analysis. The core of this system consists of the financial transactions and according to its original philosophy it embodies only actual transactions against cash or credit and omits all artificial and constructed data, such as depreciation, imputed rent etc. This system is therefore rather more homogenous and it is free of the difficulties which arise from constructed data.

For each of a number of sectors the acquisition of financial assets and the increase in various forms of debt are built up into aggregates; the difference between the two is the net lending or net borrowing of the sector.

The flow of funds accounts, however, complement this system of financial accounts by another approach which is taken over straight from the national income accounts, with few modifications. In this alternative approach in each sector gross saving is obtained as the difference of current receipts and current expenditure. If we deduct from this gross saving the gross real ("physical") investment there remains the net financial investment, which ought to be equal to the identical concept arrived at above by an alternative route.

In the flow of funds accounts the two results are confronted with each other and the discrepancy is shown for each sector. This discrepancy is often substantial; this is not surprising since the gross saving as derived from the national income accounts is a residual item. In principle it would seem that the financial approach, being based on aggregation of individual items, does not share this weakness. It must be realised, though, that the results for the household sector are in fact a residual also in the financial approach, because for the households (and non-corporate business) hardly any direct data exist.

In spite of this qualification the results of the financial approach are used in the present paper in preference to the other approach.[3]

One word on the treatment of the household sector. In the U.S. flow of funds separate sectors are introduced for farms and for non-corporate business. The separation of the households from the corresponding farm or small business is based on the principle that all net saving is attributed to the household. (This is essentially the same principle as in the national income system, although this does not show the farm and non-corporate business separately.) Working on the same principle it is concluded that any *net* real investment in these sectors must be financed either by borrowing or by new capital ("equity") contributed by the proprietors. The stream of new equity into, or out of, these sectors is in this way statistically determined.[4] In fact, the data for

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[3] In the U.S. flow of funds data the financial method gives consistently higher estimates for the household sector. The discrepancy is rather moderate (of the order of 10 p.c) when it is measured in relation to household saving (the sum of gross real investment and net financial investment). It is very large when it is expressed as a percentage of the net financial investment, but there is no justification for attributing the error exclusively to this side. Some countries show no discrepancy; evidently the errors are hidden in one or several of the estimates.
[4] FEDERAL RESERVE SYSTEM, *Introduction to Flow of Funds*. Washington 1975.

most recent years show a movement of equity out of these sectors. While the statistical basis is still lean, the flow of funds analysis touches here on interesting aspects which find no place in the income accounts.

Data on Household Saving and Lending

The increasing trend of saving ratios is illustrated by data in Table 1 for a number of countries. It is even more evident for the lending of households (expressed as a ratio of GDP). In fact in some countries such as Great Britain financial saving has increased as a share of total saving of households, thus reinforcing the trend of lending.

The decline of the saving and lending ratios in the years 1976 to 79 in the U.S. and in Germany cannot be regarded as an interruption of the upward trend of saving: Rather, as we shall argue below, it is a cyclical, or more precisely an anti-cyclical phenomenon, especially in the U.S. In fact, as the recession in 1980 and 1981 proceeded in the U.S. the savings ratio increased again. Other countries (Great Britain, Canada, France) did not show any decline of the saving and lending ratios in those years but rather a continuing upward trend.

Another generalization appears to be possible when the year by year figures are considered (Table 2). We invariably find that the saving and lending ratios have increased in the recession of 1974 and 1975. This might be linked to the oil shock which affected more or less all industrial countries and which strongly reduced car purchases and consumer credit in those years. We can, however, observe signs of a similar behaviour of the saving ratio in other recessions, too. Thus in the U.S. the low growth year 1967 and the no-growth year 1970 showed high lending ratios. The boom years 1976 to 78, following on the great recession, witnessed rather low saving and lending ratios, while the renewed recession of 1980 and 1981 made the saving ratio rise again strongly. These observations, and a few more for other countries may not suffice to establish anti-cyclical behaviour of the saving and lending ratios as an iron rule (which it can hardly be), but they may be at least sufficient to exclude the opposite — a procyclical response of these ratios. They show in fact no flexibility in relation to the state of demand, in strong contrast to the flexibility of business profits and saving.

TABLE 2

ANNUAL RATES OF HOUSEHOLD SAVING

	U.S.		Germany		France		U.K.		
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(3)
1960		2.6		5.0	11.5		7.2	1.3	22
1961		3.1		5.7	10.9		8.7	2.5	35
1962		3.1		5.3	13.4	5.5	7.5	2.0	33
1963		3.0		6.0	12.3	4.4	7.5	1.9	31
1964		3.9		6.7	12.1	3.2	8.1	2.1	33
1965		4.0		7.5	12.8	3.4	8.9	3.1	44
1966		4.5		6.9	12.2	2.8	9.1	3.4	47
1967	8.1	5.5		6.4	12.5	3.0	8.4	2.5	38
1968	7.1	4.5		7.1	12.3	2.5	7.6	1.5	24
1969	6.4	3.3		7.5	10.9	1.5	8.1	1.9	29
1970	8.0	5.3	13.7	7.9	13.4	3.7	9.3	3.4	45
1971	8.1	4.8	13.5	7.9	13.5	3.7	7.6	0.9	16
1972	6.5	4.5	14.6	8.5	13.7	3.4	9.7	2.3	30
1973	8.6	5.1	14.0	7.9	14.1	3.5	11.7	4.5	47
1974	8.5	5.4	14.9	8.6	14.1	3.7	13.5	6.7	61
1975	8.6	6.6	15.3	9.3	15.3	5.7	12.7	6.0	60
1976	6.9	5.3	13.5	7.8	13.0	3.9	11.9	5.1	57
1977	5.6	3.9	12.6	7.1	13.4	4.5	10.8	4.1	50
1978	5.2	4.4	12.5	6.8	14.4	5.5	12.7	6.0	61
1979	5.3	4.4	13.1	7.2	13.3	4.3	14.1	7.1	61
1980	5.6	5.9	13.4	7.3			15.3	8.7	68

(1) Saving as p.c. of disposable income.
(2) Lending as p.c. of GDP.
(3) Lending in p.c. of saving.

Sources: See Table 1.

The household lending must now be viewed in relation to the whole system of borrowing and lending of the various sectors in the economy (Table 3). Which are the sectors who borrow the households' financial surplus? The answer is very different in different countries, but we can say that only in exceptional cases is the households' surplus fully absorbed by the private non-financial enterprise. To a varying extent this absorption is provided by the public sector; its role is generally very much larger in the period 1973-80 than it had been before, and the role of the private non-financial sector is smaller. Thus in U.S. the private non-financial sector absorbed 80 p.c. in 1964-72, and 65 p.c. afterwards.

TABLE 3

NET FINANCIAL SAVING BY SECTOR PER ANNUM

	Households	Public Sector	Non Financial Enterprise	Financial Institutions	Rest of the World	Residual
U.S. (billions of $)						
1964-72	39.4	− 13.7	− 31.4	2.2	2.1	1.3
	100	− 35	− 80	6	5	3
1973-80	94.4	− 42.8	− 61.6	11.9	− 7.4	5.5
	100	− 45	− 65	13	− 8	6
France (billions of francs)						
1970-72	41.7	6.5	− 43.4	− 1.8	− 3.0	
	100	15	− 104	− 4	− 7	
1973-80	88.7	− 10.6	− 92.5	8.2	6.2	
	100	− 12	− 104	9	7	
Fed. Rep. of Germany (billions of marks)						*Housing*
1964-72	43.8	− 0.9	− 21.8	1.9	− 3.6	− 19,4
	100	− 2	− 50	4	− 8	− 44
1973-80	90.6	− 32.2	− 23.7	9.8	− 5.1	− 39.5
	100	− 35	− 26	11	− 6	− 44
Japan (trillions of yen)						
1964-72	5.2	− 1.3	− 3.7	0.6	− 0.7	
	100	− 25	− 72	12	− 14	
1973-79	17.4	− 11.6	− 6.6	1.3	− 0.6	
	100	− 66	− 38	8	− 3	
Italy (trillions of lire)						*Residual*
1968-72	7.7	− 3.8	− 3.3	0.2	− 1.1	0.2
	100	− 49	− 43	3	− 15	3
1973-80	27.1	− 17.7	− 10.9	2.4	0.8	− 1.7
	100	− 65	− 40	9	3	− 6
U.K (millions of £s)						
1960-64	500	− 749	89	39	53	69
	100	− 150	18	8	11	14
1965-72	938	− 594	115	−163	−252	− 44
	100	− 63	12	− 17	− 27	− 5
1973-80	7,666	−7,110	−1,384	− 95	712	210
	100	− 93	− 18	− 1	9	3

Source: U.K.: *Economic Trends*
Other countries: OECD *Financial Statistics.*
Public corporations are included in the non-financial enterprise in Germany and France, in the public sector in U.K., Japan, Italy.

In Japan the corresponding figures are 72 p.c. and 38 p.c.; in fact this country is not very different from many European countries in having a large budget deficit offsetting two thirds of the household lending in 1973-79, about as much as in Italy. The extreme case is Britain where the (private) industrial and commercial companies were net lenders (on the average) from 1960 to 1972. Only in 1973-80 did they borrow, and that only to the extent of 18 p.c. of the households' lending. It has to be borne in mind that British industry does not borrow much from the banks and finances itself to an unusually large extent from its own earnings.[5]

In France, on the other hand, the enterprise sector absorbed the whole of the households' financial surplus. This, however, is partly due to the inclusion of the large public corporations in this sector.

The borrowing propensities of the non-financial enterprise sector are further elucidated in Table 4 which shows the net borrowing as a ratio of real ("physical") investment. The exceptional position of the U.K. is again apparent. In the other countries ratios of a quarter to a third are frequently met. The public corporations are always more inclined to borrow than the private enterprises.

A peculiar feature common to most of the countries listed in Table 4 is the strong increase of the borrowing proportion in the recession of 1974-75. This may be a case of what is further below called "enforced indebtedness": Profits were falling short of expectations and the real investment, carried out as determined beforehand, had therefore to be financed to a larger degree than usual by borrowing. This effect, however, was temporary.

Analysis of Saving Behaviour and its Implications

Keeping an eye on the data presented above we shall now try to understand how the events are linked together.

A convenient starting point is the rise of the saving ratio in the slump of 1974-75. The household saving represents the balance of households' gross saving on the one hand and borrowing on the other; some people save while others dissave (borrow) and the resultant is the

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[5] J.M. SAMUELS *et alia: Company Finance in Europe.* London 1975.

TABLE 4

NON-FINANCIAL ENTERPRISE SECTOR: NET BORROWING IN P.C. OF PHYSICAL INVESTMENT

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
U.S.	28	29	26	31	33	34	31	36	43	44	7	22	28	28	30	24
Canada, private								23	18	37	26	25	17	23	28	32
France, private						43	46	42	51	60	43	46	44	40	33	
Italy (1)				28	35	32	41	26	50	53	59	41	30	20	10	35
Germany (2)	30	24		13	30	32	32	29	29	25	11	15	14	1	15	21
U.K., private			3	16	22	33	7	14	25	43	10	5	5	2	19	17
Canada, public enterprise						53	59	58	73	71	81	78	66	62	59	50
France, public corporations						16	24	32	29	50	58	51	51	51	49	
U.K., public enterprise				45	52	34	53	15	12	46	54	39	19	12	35	

Source: OECD Financial Statistics.

(1) identified financial deficit
(2) includes public enterprise, excludes housing.

saving shown by our data. In a recession both items may move in the same direction, yet the balance may increase. While incomes are falling, consumers try to maintain, at least for the time being, their customary standard of life, which tends to reduce the saving ratio. This is the conventional view. At the same time, however, the net flow of consumer's credit and mortgages on houses is reduced because of the uncertainty about future incomes. This will tend to increase the saving ratio. This effect will be the stronger since it is associated naturally with a fall in consumption of durable goods and purchase of houses which are financed by consumer's debt.

Thus if for example the purchase of consumer's goods on credit is reduced by more than the saving gross of debt, the net saving and the saving ratio will increase on account of the reduction in the net flow of consumer's credit. The "perverse" reaction of saving in 1974-75 thus appears very natural in the conditions of to-day in which two elements, not prominent in pre-war Europe, have become exceedingly important: One is the relative weight of durable goods and also of dwelling house construction, in the spending of consumers. The other is the tremendous importance of consumers' debt. Both factors work for instability, in so far as they reinforce any stimulating or depressing effect on incomes.

The traditional image of consumption as a passive element adapting itself to a given income, leaving a positive remainder, is not adequate to-day. Rather we may argue that durable consumers' goods in many ways are similar to investment goods. The demand for them is not limited to the purchasers' own resources or income. It depends to a large extent on expectations concerning future incomes and is therefore volatile in the same way as investment. The change in the demand for consumers' durables will therefore often be much greater than the change in disposable incomes which gives rise to it. The instrument which makes this "leverage" possible is consumers' credit.[6]

The discussion so far has turned round the cyclical behaviour of saving and the conclusion is that *prima facie* the saving ratio is unlikely to move procyclically, and may even change anticyclically. The question

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[6] The net marginal propensity to save out of income net of tax, i.e. the balance of saving by some and dissaving (borrowing) by others, may thus be zero or negative. The marginal propensity to consume out of income gross of tax will nevertheless be smaller than unity provided the marginal tax (and — in an open system — the marginal propensity to import) is sufficiently large to ensure the convergence of the multiplier.

arises now whether we can make any plausible generalisation about the saving ratio's response to changes in the long term growth rate.

Some of the short term responses mentioned above may be temporary: Thus the tardive adaptation of consumption to a fallen income; equally well however, also the reduced borrowing for durable goods which in part may merely be a deferment of the purchase. The two qualifications work in opposite directions. We may perhaps conclude that even in the long run there is no strong reason for lower levels of income to produce lower (and higher levels higher) saving ratios. In fact, if for the purposes of an abstract model the saving ratio would be assumed roughly constant in face of changes in growth this would not be grossly unrealistic.

For the purposes of the analysis of the relevant problems we may be satisfied with a "weaker" statement: We can say that the household saving will be relatively inflexible as compared with business saving in response to changes in growth of GDP. The reason is simply that business profits are more flexible in relation to general demand or growth than most other incomes. From this follows *inter alia* that the ratio of household savings to business savings will increase with falling growth rate.

It is now time to turn to the main question of this paper: What are the effects of the increased household saving on growth?[7]

In the first stage a closed economy without public sector is assumed. Since investment in any year is determined by past decisions and therefore given, any increase in household financial saving means that business saving must *pro tanto* decrease. This works out *via* the reduction in demand which reduces the utilisation of capacity, therefore the profits and hence the savings of business. This will weaken the incentive to invest in subsequent periods. This effect of household saving can be understood intuitively: The existence of savings outside business implies that a part of the saving created by business investment will not return to the business sector and will therefore not be available *directly* for re-investment, thus weakening the incentive to invest. The outside saving has to be borrowed to be used, and business is constrained in its debt policy by considerations of risk. Moreover the financial system which mediates between business and the saver is again motivated strongly by considerations of risk.

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[7] In principle this question was discussed by KALECKI who referred to "rentier's saving". *Theory of Economic Dynamics*, London 1954.

The immediate consequence of an increase in household saving in a closed system will then be a kind of "enforced indebtedness": Business will find that their profits have fallen below expectations, and they have therefore to finance their current investment to a greater extent than foreseen by borrowing. This may then motivate them to reduce their investment in the future.

In a closed economy the proportion of household financial saving to gross business saving should correspond to the proportion in which business as a whole wishes to finance its current gross investment by borrowing and by its own gross saving. The debt policy of business may be quite flexible in certain conditions but once the proportion of debt to their total assets approaches a certain critical level it will become a serious constraint.

The conclusions reached above in the very abstract case of a closed economy are considerably modified once we pass to the case of the open economy. Here offsets against the household saving are found also in the foreign balance and in the budget deficit: The effects of an increased household saving will to some extent be deflected from business and directed towards the foreign balance and the budget deficit; to the extent to which this happens the negative effects of an increase in household saving on the growth rate are reduced, unless the budget deficit leads to a retrenchment in the public sector.

Referring to the actual effects of the increase in household saving in the last decades, can we not get a more concrete answer? Guided by the empirical data we can say that "enforced borrowing" by business was at best only a temporary result of the recession in 1974-75. There is no sign that borrowing in relation to business investment has increased in the long run (see Table 4). The foreign balance could hardly afford a way out, influenced as it was in the main by very special factors. Looking at the growing budget deficits it seems indeed that they were the offset to household savings in most countries. It appears that the budget is the sector which is least able to defend itself against the pressure of a financial surplus which needs find a borrower to be able to exist. But how comes that the budget is so defenseless? There are those who put it down to the inability of governments to resist the pressures of the welfare state. This is not my interpretation. Indeed, it has not been for want of trying if retrenchment policies have failed time and again in the last decade. The reason lies in three circumstances. One is that of every cut in public spending something of the order of one half is "fed back" in reduced tax revenue and increased social expenditure on unem-

ployment etc.[8] The remaining other half represents a reduction in disposable incomes. As has been argued further above this cut may easily lead to a reduction in spending — and borrowing — on durable goods which is much greater than the cut in disposable income. But even if net household saving at the margin is zero, with marginal tax say 50 p.c., the result in a closed system is that a multiplier of 2 works such as to reduce budget receipts by as much as spending has been reduced. The consumers' reactions will be partly temporary. In a later stage the unfavorable response of business fixed investment may take over to ensure that no improvement in the budgetary position takes place.

The third condition for retrenchment policy to prove abortive concerns the foreign balance. In the normal course of events the foreign balance will improve (the "rest of the world" will borrow or at least lend less) if demand and incomes decrease. The foreign balance will thus act as a brake. A strong reaction of this type is to be expected, if most of the durable consumers' goods are imports in the country under review. This safety valve through which an excess saving may escape, to be borrowed by other countries, can not work very well if all industrial countries are retrenching and going into recession at the same time. The situation is then much the same as in a closed economy, except for the open frontier which still exists towards the third world. There would seem to be hope there because it should not be difficult to induce the third world to borrow. However, their ability to borrow depends ultimately on the amount of credits which the industrial world is willing to advance to them. Without credits the third world countries will simply reduce their imports and the "safety valve" will be closed.

It is apparent that we cannot establish a generally valid pattern of retrenchment policy because quite a lot depends on the response of the foreing balance which may be dominated by coincidental historical factors. We can only describe a scenario of a frustrated retrenchment policy which reflects the course of events of the years since 1974.

The tendency to retrenchment was present in practically the whole industrial world. The absorption of some of its saving by the third world was impossible; on the contrary, the industrial world as a whole was forced willy-nilly to borrow from the Opec countries the greater part of the surplus which those were unable to spend. In fact, the Opec countries were themselves operating a kind of retrenchment policy, parallel to that of the industrial world. In these circumstances all retrenchment efforts would only come back to the public sector as renewed and even increased deficits.

It can be surmised that also in future a retrenchment policy not confined to one country but general will fail in its aim of establishing budgetary balance.

Saving and Growth

Let us turn again to the effects of long or medium run growth on saving. In view of the inflexibility of household saving, a slowing of growth, since it will depress business saving, must increase the proportion of household saving in the total private saving. This in itself will make it more difficult for business to borrow the whole household saving.

Once household financial saving is vastly in excess of half of the total saving it is illusory to expect that this can be borrowed by private business.

In fact, in some countries to-day even the restoration of private investment to a level sufficient to maintain full employment by itself would not reduce the proportion of household savings to a level sufficiently low to make it susceptible to being absorbed by private business borrowing without any further ado.

It should be stressed that the saving ratio is only one of the problems which have plagued the world since the times of unbroken prosperity have passed. I have discussed some of the other problems briefly elsewhere.[9]

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[8] See T.S. WARD and R.R. NEILD: *The Measurement and Reform of Budgetary Policy.* Heinemann, London 1978.

[9] "Stagnation Theory and Stagnation Policy." *Cambridge Journal of Economics.* April 1979.

Supply Constraints

The analysis so far has been based on the assumption that there are no supply constraints — which in present conditions is realistic.

Supply constraints can be of varying degree. In their strongest form — when demand exceeds the limits of what can be produced with the available resources — they lead to profit inflation. Before that stage is reached — when bottlenecks are spreading in the economy — the steam is let out through the foreign balance. While profit inflation has hardly played a role in industrial economies since the early post-war period, the overspilling of excess demand into the foreign balance has at certain times of very full employment in some countries played a role. It is evident that under such conditions a large household saving offers relief; it is therefore quite natural that, for example, attempts to limit consumers' credit are made in such times.

The periods when supply constraints are negligible and effective demand is the crucial factor have been on the whole prevailing over the last decades in the industrial world.

Saving Policies

The increasing trend of the saving ratio is based not only on statistical data but also on grounds of plausibility. In the decades of great prosperity when real income strongly increased year by year it was to be expected that consumption here and there would lag behind. Before all this was to be expected for those strata of society whose members reached particularly high incomes: The managers, the liberal professions, stars in sports and in the arts, higher employees.

Below the top there was the spread of institutional saving — life insurance and accumulation of pension funds in firms — forms of saving which from the "flow of funds" point of view are only an indirect financial investment of the saver. Though it is true that at the same time consumers' credit expanded also that could not keep up with the accumulation, which was, moreover, stimulated by government subsidies to saving, sometimes of very generous proportions, practised in various countries to varying degrees.

A new rentier interest has thus arisen out of the ruins of the old rentier classes which, in central European countries at least, have been obliterated by economic and social upheaval after the two great wars.

There is one moment which apparently counteracts this: Inflation which reduces the real value and earning capacity of the financial assets of households to the advantage of the debtor (business or government). This may be offset by a high interest policy but not entirely so, because the old financial assets embodied in fixed interest bearing securities will in any case loose in value.

Since inflation is not unreservedly acceptable as a policy it may be asked what alternative policies are available to deal with the undesirable effects of an increasing saving ratio. It is fairly evident that the promotion of savings which may have made good sense in the early post-war reconstruction period has become paradoxical, since saving is subsidised from public funds only to be borrowed back again at high cost by the government. Apart from dispensing with this luxury there seem to be the following ways: First, to induce business to borrow more; second, to encourage the borrowing as well as the real investment by the households; and third, to interfere directly with the distribution of personal incomes.

ad 1) This can be achieved by making it less risky for firms to indebt themselves. A maximum of government guarantee is present in nationalised firms. In fact, public corporations indebt themselves more readily than private firms (see Table 4).

Quite substantial securities can be given also to private firms. An example is the guaranteeing of export credits by the government. There are natural limits to this policy, because basically responsibility must remain with the enterprise. Yet the tendency to prop up financial structures by the promise of support plays a large role to-day.

ad 2) Bank credits to private households for purchase not only of houses but also of furniture etc. are quite important to-day and at times they have been the stop-gap for an insufficient demand for credits by business. While this may be a symptom of a lack of dynamics in industry in some countries, it is nevertheless a way of bridging over the gap between the needs of young people and the excess savings of others; it is not an ideal way because it solves the problems only for a minority, the greater part of the youngsters being hardly able to bear the burden of the debt.

ad 3) This touches a most neuralgic point. It may be guessed that the inequality of personal incomes is one of the causes of the increasing saving ratios. Now it is difficult to maintain that the salaries of surgeons, professors, officials etc. are strictly determined by market forces. With regard to managers appeal is often made to an international market; how conventional and arbitrary just these incomes (and the institutional arrangements and prejudices supporting them) are can be seen by reference to the fact that Japanese managers earn much less than their peers in U.S.[10] As far as there are any market forces they are put in abeyance by restrictive practices.

The absence of a strictly rational basis for the determination of higher incomes would seem to make it easier to interfere with it. In fact, the contrary is the case. The irrationality of the income structure is strong enough to resist any pressure to reform it.

I guess that the trend of household saving is quite likely to continue upward. It need not do so if a part of the saving were turned into business capital, savers becoming new entrepreneurs. Such an outcome might increase competition and favour innovation, but this is not what is likely to happen, nor are some of the prevailing policies favoring it. Savings promotion and high interest policy serve the rentier interests rather than enterpreneurship. The philosophy of Keynes — the euthanasia of the rentier — has found no favor with the policy makers of to-day.

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[10] Interview with AKIO MORITA, chief of SONY in *International Herald Tribune*, April 13, 1981.