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A NOTE ON USURY LEGISLATION IN THE PHILIPPINES*

by

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A NOTE ON USURY LEGISLATION IN THE PHILIPPINES

It has been asserted that interest rate policy in the Philippines, especially the usury rate legislation, may have had undesirable effects on the levels and allocation of savings and investment in the Philippines. It is claimed that the usury law might have caused the volumes of savings and investment to be less than they would have in the absence of such legislation. Also it is claimed that the usury law might have caused an inefficient allocation of savings between the various assets available to savers and an inefficient choice of investment alternatives by investors. It is the purpose of this paper to investigate the possible economic consequences of usury legislation.

Ι

Theoretical Considerations

price controls. The price which is controlled is the price of borrowed and lent funds—the rate of interest. Since usury laws normally specify a maximum rate of interest which may be charged, usury legislation constitutes a price ceiling on interest rates.

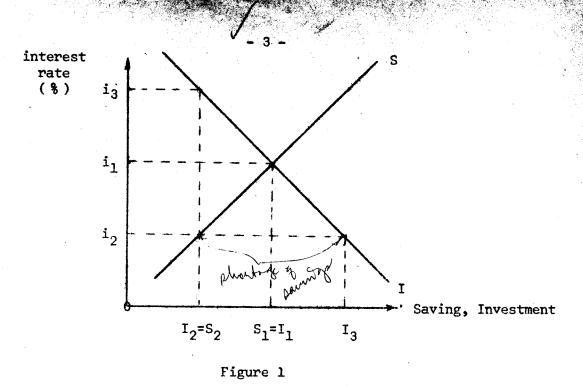
lSicat, Gerardo P.: Economic Progress in South Korea and Taiwan: Lessons for the Philippines, Discussion Paper No. 69-17, Institute of Economic Development and Research, School of Economics, University of the Philippines, Quezon City, October 27, 1969.

A price ceiling will be operative only if it is set below the equilibrium price. If the maximum allowable rate of interest is above the equilibrium rate, the actual, market rate will be the equilibrium rate. The price ceiling will be inoperative and will have no economic effects. If the ceiling is below the equilibrium rate, the equilibrium rate cannot be attained. The legally maximum rate of interest will be charged and a disequilibrium market condition will prevail.

The likely effect of operative usury legislation can be assessed only if we understand the role of interest rates in an economy. We need to identify those variables affected by interest rates and determine how these variables are affected.

The theory of interest rate determination is one of the most confused and unsettled topics of economic theory. There is a vast literature pertaining to interest rates. Interest theories can be divided into two broad categories—(1) those theories which stress the importance of interest rates in determining the volumes of saving and investment, and (2) those theories which stress the importance of interest rates in determining the allocation of total savings and total investment amongst their various alternative uses.

To the extent that interest rates affect the total volumes of saving and/or investment, a statutory interest ceiling below the equilibrium rate will reduce the total volumes of both savings and investment. If saving is a direct function of interest rates and investment is an indirect function of interest, an equilibrium interest rate i₁, can be defined which will equate saving to investment, \$1=11.



If a statutory interest ceiling, i_2 ; below the equilibrium rate, is imposed, savings will fall to S_2 and investment correspondingly will fall to I_2 (equal to S_2). Businessmen will wish to invest at the level of I_3 but their investment will be constrained to the level of I_2 due to the shortage of savings. A market disequilibrium of a permanent nature will emerge, and non-price credit rationing will be required to allocate S_2 quantity of savings amongst I_3 quantity of competing investment alternatives.

cause inefficiency in the allocation of funds amongst the competing investment alternatives. If the actual interest rate were i₁, no investment with a rate of return less than i₁ would be undertaken. If the actual rate of interest is i₂, all investment proposals with a rate of return greater than or equal to i₂ compete for the limited quantity of investment funds. It is possible that some investment proposals with a

rate of return between i₁ and i₂ will be undertaken, lowering the average rate of return on investment and creating inefficiency in the allocation of investment funds. Only if investment proposals are arrayed in descending order of rate of return and investment is undertaken in this order until savings have been exhausted will investment be efficient. In this case efficiency requires that no investment with a rate of return less than i₃ be undertaken. There is no mechanism in this model to assure that the limited savings will be allocated amongst the competing alternatives in an efficient manner.

Therefore, to the extent that interest rates affect the volumes of saving and investment, an effective interest rate ceiling can reduce the volumes of saving and investment and create inefficiency in the allocation of funds amongst competing investment proposals.

Those theories stressing the importance of interest rates on the allocation of savings and investment divide the savings decision into two conceptually separate decisions.

First, the saver must decide how much he will save, and, second, he must decide in what form to hold his assets.² Assets can take the form of money, interest-bearing financial assets, or goods. The total volume of saving is determined primarily by income. Once total saving has been determined by income, the saver must decide how to allocate his saving amongst the various available assets. The asset-holding choice

²Musgrave, Richard A.: "Money, Liquidity, and The Valuation of Assets" in Money, Trade and Economic Growth in Honor of John Henry Williams, The MacMillan Company, New York, 1951.

pertains to accumulated assets, not just to those acquired with his current savings. The actual combination of assets chosen will depend upon asset prices (return), degree of risk, and expectations about future market developments. In general, savers prefer to earn a maximum return for a minimum of risk. Therefore, other things equal, the higher is the rate of interest, the larger will be an individual's holdings of interest-bearing financial assets and the lower will be his holdings of money and goods. Different types of assets will be subject to different degrees of risk. The higher the degree of risk, the higher will be the risk premium attached to a particular asset and, hence, the higher will be its interest rate. Market equilibrium requires that the demand for each asset equal the supply of each asset. In the absence of market imperfections, a structure of interest rates will occur which will equilibrate the market for all assets.

Imposition of statutory maximum interest rates will change the composition of assets held and create disequilibriums in the asset market. Since the more risky types of assets would normally have higher equilibrium rates of interest, high-risk assets will be most strongly affected by such legislation. Holdings of interest-bearing assets, especially the high-risk ones, will tend to fall, and conversely, holdings of money and goods will rise. Investment, especially high-risk investment, will be similarly reduced as available funds for these purposes will be less.

The possibility is raised that all savings in the economy will not necessarily be channelled into productive investment. If individuals have unfavorable expectations about future market developments or if

interest rates are too low to compensate for illiquidity and risk, savings will be channelled into idle hoards of money and/or goods. If increased holdings of money are not offset by expansionary monetary policy of the central bank, investment and total income will fall. Hoards of goods are the equivalent of investment with a zero productivity.

Theoretical considerations lead to the prediction that a statutory maximum rate of interest may cause the volumes of saving and investment to fall. Furthermore, inefficiency in the allocation of savings and investment between their alternative uses may occur. Firms may make investments with a relatively low rate of return and may be deprived of the funds to make high-risk investments. Individual assetholding may take the form of investment with very low productivity (hoards of goods) or money-holding, reducing the volume of savings available for investment. Such misallocation of resources will cause a reduction in the economy's rate of growth of national income.

ΙI

STATISTICAL FINDINGS

Some of the predictions of the previous section will be tested here against Philippine data.

First, the aggregate savings function will be investigated.

It is expected that income will be the overwhelmingly important determinant of total savings, but it is also possible that the interest rate is

a determining variable. Therefore, savings will be regressed against both income and the real rate of interest to test for the effect of interest on savings. Soft (Vi)

There are several possible specifications of the income variable. The simplest form the income variable can take is that of current measured income. However, more complex forms are frequently used, stemming from the various hypotheses making consumption (or savings) a function of ones permanent income or wealth position. It may also prove useful to disaggregate the savings function, since the propensity to save of the various factor groups may differ considerably.

Three separate savings functions are estimated here. First, real personal savings is made a linear function of real current disposable income and the real rate of interest.

HYPOTHESIS I

(1) $S_t = a_1 + a_2Y_t + a_3r_t + e_t$.

where S_{t} is real personal savings, Y_{t} is real disposable income, and r_{t} is the real rate of interest (on savings deposits) in time period t. e+ is the (random) disturbance variable.

Secondly, real personal savings is made a linear function of real current disposable income, the real rate of interest, and consumption in the preceeding time period. The lagged consumption variable is a proxy ent income.

HYPOTHESIS II

(2) $S_t = b_1 + b_2Y_t + b_3C_{t-1} + b_4r_t + e_t^2$, for permanent income.

where C_{t-1} is real consumption in the previous time period.

Lastly, real personal savings is made a linear function of real current disposable income, the real rate of interest, and the share of wages and salaries in national income.

HYPOTHESIS III

(3) $S_t = c_1 + c_2Y_t + c_3r_t + c_4(W/Y)_t + e_t^{\dagger}$,

where $(W/Y)_t$ is the share of wages and salaries in national income in time period t.

It is predicted that income and interest will have a positive or direct effect on savings. Lagged consumption will have a negative or indirect effect on savings, since higher accustomed living standards should reduce current savings. Also, the share of wages and salaries in national income is expected to have a negative or indirect effect on savings, since it is generally believed that the savings propensity for wage and salary earnings is particularly low.

Multiple least squares regression analysis gives the following results for the savings function of the Philippines.

HYPOTHESIS I

(a) S = -760,40088 + .16889Y (.02665)

$$R = .82391$$
; $R^2 = .67882$; $d = 1.39756$

(b) S = -934.72437 + .18534Y + 871.55737r(.03042) (790.98975)

$$R = .83613$$
; $R^2 = .69911$; $d = 1.67236$

HYPOTHESIS II

 $S = -724.05566 + .55804Y - 478.29858r - .43532C_{-1}$ (.23100) (1123.46021) (.26766)

$$R = .86000 : R^2 = .73961 : d = 1.70667$$

HYPOTHESIS III

S = -981.63110 + .19888Y + 814.70850r - 480.64429 (W/Y) (.03291) (790.22681) (454.43750)

R = .84717; $R^2 = .71769$; d = 1.79731

Generally, the coefficients have the expected signs. The coefficients for the income and interest variables are positive, except for the coefficient for interest rates in Hypothesis 2. The coefficients for lagged consumption and the share of wages and salaries in total income are negative. However, only the coefficient for the income variable is statistically significant (at the 1% level). All other coefficients are not significant at the 10% level. (These results suggest that aggregate income is the only significant variable affecting the volume of savings in the Philippine economy) The negative intercept of the savings function means that the savings ratio, S/Y, rises with income.

Secondly the effect of interest on asset-holding is considered. During the postwar period, savings, time, and postal savings accounts have increased at a very rapid rate, so that these deposits as a percentage of national income have approximately tripled, as shown in Table 1. The upward trend in savings deposits as a percentage of national begins in about 1956. This rise in the relative size of savings deposits has not taken place at the expense of holding money, as demonstrated by the constancy of the money/national income ratio after 1952.

J It is hypothesized here that holdings of savings deposits are a direct function of income and the money rate of interest. The money

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Savin	Time. Post.	(5)=(6)		.	o.	ö	90.	90	0	ŏ	Ö.	ð.	8.	6.	£0*	80.	80.	ð.		•	:	H .	7	7	-	. 1
Money	Supply N. N. P.	(8)=(1);(7)		±7.	•25	•25	• 20	,22	.19	19	87.	.17	- TB	13	•17	18	.17	•17	87.	e i	et.	•17	•17	•17	* 18	
Net	Nat. Product	(7)	1	3,905	4,703	4,812	5,273	5,659	6,184	454.9	6,871	7,143	7,687	8, 420°		9,337	•			•	•	16,506	17,794	19,559	21,297	
Ints. Rate	on Savings Accits	(9)		• 0200	• 0200	•0200	.0200	,0200	• 0200	•0200	•0200	0200	• 0200	•0200	•0200	0080	0080	0080	0080	0080	.0350	0320	0040	.0575	• 0575	
Savings.	Time, plus Postal Acc'ts	(5)=(2)+(3)+(4)		232.2	306.6	258,2	315,9	312,5	310,7	330,2	407.8	370,7	6*98#	563,6	655,3	747.6	866,2	1,009,4	1,438,4	1,928,5	2,372,7	2,441,5	2,555,4	3,230,9	3,685,2	
Postal	Savings Acc'ts	(†)		!!!!			31.6	29.8	29.8	30,5	33,1	33.9	35,4	38,5	41.6	45.0	44,5	0*94	8*6#	59.1	†*09	61.4	4.99	61.0	59.7	
	Time Neposits	(3)			1	1	29.0	35.0	39°4	40.7	70.0	70.2	90.5	97.0	115,5	141,3	183,4	242.8	481.9	863,1	1,125,4	1,035,1	1,051,6	1,202,1	1,411.5	
	Savings Deposits	(2)		232.2	306.6	258.2	255,3	247.7	241.5	259.0	304.7	266,6	361.0	428,1	498,2	564,3	638,3	720.6	2,906	1,006,3	1,186,9	1,345,0	1,437.4	1,967,8	2,213,3	
	Money Supply	(1)		0.046	1,015,0	1,194,0	1,035,6	1,229,4	1,160,7	1,198,4			1,337,3	1,500,6	1,600,0	1,740,1	1,845,3	1,895,8	2,219,3	2,504,7	2,954,3	2,873,8	3,066.9	3,371,3	3,782,5	
	Year			1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1961	1965	1966	1961	•

Source of Data: Central Bank of the Philippines: Statistical Bulletin, Vol. XX, No. 4, Dec., 1968, Table 5, p. 33-34, Table 40, p. 124, Table 1, p. 27.

National Economic Council: Statistical Reporter, Vol. XIII, No. 1, Jan-Mar., 1369,

variable, since the asset-holder is choosing between holding assets with a zero coupon return (money and goods) and assets yielding a coupon return.

Using a linear specification, total savings deposits are regressed against national income and the money rate of interest.

(4)
$$D_t = d_1 + d_2Y_t + d_3i_t + e_t^{\prime\prime}$$
,

where D_t is the sum of savings, time, and postal savings deposits, Y_t is national income, i_t is the money rate of interest, and $e_t^{\dagger,\dagger}$ is the (random) disturbance variable in time period t.

Multiple least squares regression analysis gives the following results.

R = .98334; $R^2 = .96696$; d = .46110

The income and interest variables both have the expected positive sign. Furthermore, the interest coefficient is significant at the 5% level and the income variable is significant at the 1% level. The statistical results suggest that money interest rates will affect the allocation of savings amongst the various assets available. High money interest rates will expand savings deposits and encourage monetization of savings.

³It has also been argued that general expansion of the banking system, which changes the range of assets available to savers, has caused the monetization of savings. While the merits of this argument are not denied, it should be noted that the banking system started its remarkable expansion in the late 1940's. However, savings deposits as a percentage of national income began to increase only in about 1956, approximately coinciding with the rise of money interest rates. For a more thorough discussion of this point see Hooley, R.W.: "Implications of Savings Structure for Economic Development," The Philippine Economic Journal, Vol. I, No. 2, Second Semester, 1962.

Thirdly, the extent to which the (usury) interest ceiling is operative is considered. If indeed the ceiling operates to keep interest rates down below the equilibrium market rates, one would expect that most loans would be granted at the maximum allowable rate of interest and the resulting excess demand for loanable funds will result in banks having very low excess reserves.

Tables 2, 3, and 4 provide the necessary data for determining the presence of excess demand for loanable funds. Table 2 shows that for almost the entire period under review, banks operated with very considerable excess reserves. The percentage of excess reserves to total reserves fluctuates very considerably throughout the period, but only after 1966 does the reserve position of banks become really "tight" in the sense of banks utilizing all their reserves for deposit creation. After 1966 the reserve position becomes very tight to the extent that excess reserves are negative for much of 1968. Therefore, it would appear that excess demand for loanable funds emerges only after 1966.

Table 3 shows the percentage distribution by interest rate of loans and grants outstanding by banks, 1950-56, and total credits granted by banks by interest rate, 1958-68. The modal rates of interest for the years 1950-56 vary between 5-5 1/2 and 7-7 1/2. Furthermore, there is no upward trend in the modal rate during the period. Table 4 shows the percentage of credits bearing the modal rate of interest or less. This percentage varies between 31% and 75%. There is no evidence here of upward pressure on interest rates for the years 1950-56. Furthermore, since the modal rate of interest is about one-half the legal maximum

TABLE 2

Available, Required, and Excess Reserves of the Commercial Banking System (millions of pesos)

E	and of	Avai	lable Reser	ves	Excess
	eriod	Total	Required	Excess	Total
				`	
	1945	152.9	23.5	129.4	•85 ·
	1946	190.9	55.8	135.1	.71
	1947	225.8	88.8	137.0	.61
	1948	304.7	125.5	179.2	•56
	1949	143.8	93.2	50.6	.35
	1950	244.3	115.7	128.6	•52
	1951	116.0	96.7	19.3	.17
	1952	147.5	107.8	39.7	.27
	1953	147.8	113.5	34.3	.23
	1954	165.8	117.7	48.1	.29
	1955	188.5	136.8	51.7	.22
	1956	234.3 +	. 161.6 ·	72.7	.31
	1957	201.9	160.4	41.5	.21
	1958	324.7.	169.7	155.0	•48
	1959	296.5	253.2	43.3	.15
	1960	251.1	197.2	53.9	.22
	1961	310.2	229.3	80.9	.26
	1962	404.6	313.6	91.0	.22
	1963	459.9	397.0	62.9	.14
	1964	449.6	384.2	65.4	.14
	1965	465.4	401.5	63.9	.13
	1966	506.6	377.2	129.4	•26 [/]
	1967	855.8	764.9	90.9	.11
Jan.	1968	941.7	918.1	23.6	.03
Feb.	1968	920.1	914.3	5.8	.01
Mar.	1968	948.2	931. 9	16.3	.02
Apr.	1968	914.7	923.2	- 8.5	01
May	1968	864.6	906.6	- 42.0	05
June	1968	930.1	918.8	11.3	.01
July	1968	884.9	915.1	- 30.2	03
Aug.	1968	836.2	892.1	- 55.9	07
Sept.		879.3	915.8	- 36.5	04
Oct.	1968	863.7	905.5	- 41.8	05
Nov.	1968	900.6	912.5	- 11.9	01
Dec.	1968	992.8	969.8	23.0	.02

Source of Data: Central Bank of the Philippines:

Statistical Bulletin, Table 7,

Vol. XX, No. 4, Dec., 1968.

Percentage Distribution of Outstanding Loans and Discounts of Other Banks, Classified by Interest Rates¹

	9t #9	66	•	T #9	55	13	22	5.6128
11 12	1.	1,99	2.	2°(3.	H.	1.22	
10	1,28	08.0	1.30	1.72	1.73	1,49	1,27	
6	11.61	5.78	8,18	10,47	7.74	8,27	4.36	
80	8.60	68.6	12,64	12,49	13,75	14,71	7,84	
7-7 1/2	28,45	24,20	24,55	23,37	22,89	20,17	10,94	
6-6 1/2	11,25	17,92	19,96	24.06	33.04	37,62	61,19	
5-5 1/2	15,73	24.70	25,66	20,61	12,36	8,19	8,07	
4-4 1/2	19,48	12,32	1,85	2,59	3,17	3,71	3.01	
က	60*0	-	1		60.0	0,12	0.58	
8	I	1,36	1.67	1,26	1,05	1,10	1,29	
H	0.27	0.18	0.18			1	1	
0	1,55	0.80	1.48	0.74	0.57	0.51	0,19	
End of Period	1950	1951	1952	1953	1954	1955	1956	

Central Bank of the Philippines: Statistical Bulletin, 1 Totals may not add to 100% due to rounding Source of Data:

Vol. VIII, No. 4, Dec., 1956, Table 22, p. 45.

Percentage Distribution of Total Credits Granted by Other Banks Classified by Interest Ratesl

		¥							35		7 000				13.4
	2,31	13,58	22,86	29.69	12,00	4,41	9,45	2,50	86*0	0.20		1	1	1	1968
	1.20	18,77	12,19	25.36	21,85	5,35	3,82	7,93	0.73	0,21	11111				1967
	1,52	18,27	14,18	23,81	22,70	6.01	5,54	5,41	90.0	0.31	1		1	1	1966
	0.20	13,56	6,10	14.94	29,71	16,99	13,13	3,93	±0.0	0.55		-	1	1	1965
Ï		11,02	4.58	14,12	24,21	25,46	13,18	64.9	0.37	0,50	1	1	1	1	1961
Ì	-	8,02	2,56	TI NO.	20,17	30,36	11.76	12.67	1.60	1,02	1	1	1	1	1963
	-	7.79	1,24	12,07	24,02	17,91	21,38	13,42	0.67	1.45	1	1	!		1962
Ì		6,81	0.07	7,16	14,76	19,43	36,79	13,29	0.61	0.76	1	1		1	1961
Ĭ		7.23	17.°	7.94	13,18	25,14	32,01	11.84	1,32	1,19	1	1	1		1960
ľ	-	6,20	0.27	3,10	12,21	26,79	18,26	24.64	1,15	2,38		1	1	1	1959
Ì	I	4,73	1.00	4,01	6,83	12,27	10.04	51,65	6.58	3,73	1.0		1	10000	1958
1,1	13	.12	11	10	6	8	7	9	22	†	m	2	. <u>:</u> H	0	Period
													-		End of

Source of Data: Central Bank of the Philippines: Statistical Bulletin.
Vol. XX, No. 4, Dec., 1968, p. 55, Vol. XXI, No. 2, June, 1969, f. 53. Totals may not round to 100% due to rounding

TABLE 4

Modal Interest Rates Charged by Other Banks and Percentage of Total Credits Bearing Modal Rates or Less, 1950-1968

59.23	10	1968
	10	1967
63484	10	1966
64,35	6	1965
46•00	80	1964
Th*/2	89	1963
28 . 87	6	1962
51.45	7	1961
46.36		1960
73,22	co	1959
61,96	Q	1958
74.33	6 - 6 1/2	1956
•	6 - 6 1/2	1955
50.24	6 - 6 1/2	1954
•	6 - 6 1/2	1953
	l N	1952
39•36	5 - 5 1/2	1921
76.82	7 - 7 1/2	1950
or Less		
	Modal Interest Rate	End of Period
ラサイグション サン・サイト・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・		

Source of Data: Table 2

(12% for secured, 14% for unsecured loans) and a large percentage of • loans are granted at rates equal to or below the modal rate, it would appear that usury legislation is set at such a high level so as not to affect significantly lending policies of commercial banks during the 1950-56 period. 4

For the period 1958-68 there is strong evidence of upward pressure on interest rates. The modal interest rate rises steadily during the period from 6% in 1958 to 10% in 1968. Also, by 1967 excess demand for loanable funds becomes evident, as evinced by the low excess reserves, becoming negative for much of 1968.

Therefore, it would appear that before 1967 usury legislation was not operative and lending policies of commercial banks was determined by considerations other than usury legislation and quantity of excess reserves. However, from 1967 on it would appear that usury legislation places an effective limit to interest rates charged and this limit is associated with an excess demand for loanable funds.

[&]quot;true" interest rates due to incentives to "hide" part of the interest charges by including them in various kinds of service charges. The usury legislation would provide an added incentive for such practices. With interest rates only one-half of the legal maximum, it is highly unlikely that usury legislation encouraged shifting of interest charges. However, as stated rates rise, this incentive becomes increasingly strong, so that the higher the stated rate, the more understated is the "true" rate.

CONCLUSION

absolute terms, but also as a percentage of personal income. The savings ratio (S/Y) has risen from an average of 5% for the years 1950-53 to an average of 13% for the years 1964-67. The rise in personal income during this period was the only statistically significant variable explaining this rise in savings. Since the coefficient for the interest variable is insignificant, we may conclude that there is no evidence that low rates of interest have inhibited the growth of savings.

Savings deposits have also experienced very rapid growth in the period under review, rising from an average of 5% of GNP for the years 1950-53 to an average of 16% of GNP for the years 1964-67. The rise in personal income and the rise in money interest rates were both statistically significant variables explaining the growth of savings deposits. These results suggest that high money rates of interest can be an effective policy tool for changing the composition of savings and channelling them into financial forms. Similarly, the usury law, which places a limit on money interest rates, is likely to inhibit the growth of savings deposits and the monetization of savings in the near future, since interest rates are approaching the statutory maximum.

There is no evidence that the usury legislation was operative prior to 1967. Interest rates were well below the legal maximum and banks had a high level of excess reserves, suggesting no shortage of loanable funds at the prevailing rate of interest. However, by 1967,

interest rates approach the legal maximum and excess reserves of banks disappear, suggesting a shortage of loanable funds. Upward revision of maximum legal interest rates or the outright rescinding of the law would be appropriate to prevent misallocation of savings between their alternative uses.