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Item Type	Article
Authors	Sawani, Mustafa;Patterson, Seymour
Publisher	Academic and Business Research Institute
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Download date	2026-06-12 12:59:17
Link to Item	http://hdl.handle.net/20.500.12424/176539

Informal Saving Practices in Developing Countries

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Abstract

This paper is concerned with the paucity of financial intermediates in developing countries and the alternatives to formal financial institutions as a source of funds. Low income besets developing countries and disparate financial practices affect saving, consumption, and the income multiplier. Informal and formal “financial intermediaries” are a means for allocating funds with and without the use of interest payments.

Informal systems consist of interest and non-interest generating practices. Examples of informal systems are the Esusu in West Africa and the Iddir in Ethiopia in which interest does not play a role. An example of a formal system is Islamic banking in which interest is eschewed. By contrast, Western banking practices depend strongly on the intervention of interest as an allocative mechanism between savers and dissavers or present consumers.

In the paper it is shown that under Islamic banking rules, saving is lower than consumption and the income multiplier is higher. In presence of Islamic banking, disposable income is siphoned off as transfers to God and to the poor. Thus, Islamic saving practices tend to exacerbate the gap between saving and investment, while encouraging higher levels of consumption.

The paper implies that, under very restrictive assumptions, transfers of income from the West to Islamic countries in Africa would increase income by more than it would reduce it. That would be the case since the income multiplier in Western banking countries is lower than the income multiplier of Islamic banking countries.

Key words: Financial Intermediates, Esusu, Iddir, Islamic banking, Income differentials

I. Introduction

A serious problem confronting many developing countries is the savings gap, which essentially means that these countries find it difficult to finance investments needed for growth from domestic saving. Since saving depends on income, low levels of income that characterize developing countries translate into low levels of saving. Moreover, in developing countries, the majority of the people are poor and the distribution of income is skewed in favor of a small group of businessmen, workers in the government bureaucracies, and the elite whose consumption behavior tends to mimic the consumption behavior of their Western counterparts. To the deleterious effects of low income on saving, one might add the low average propensity of the poor to save and since in terms of sheer numbers the poor outstrip the rich in developing countries, on that account, saving is also low¹.

The access of the poor to modern financial intermediates in LDC urban centers is constrained by custom and tradition and by the lack of availability of personal assets for use as collateral. However, human ingenuity has devised many alternative means for achieving saving and distribution of income. Part of human ingenuity includes formal and informal saving practices that coexist in a number of places around the world. A quaint example of the formal is the Caja de Ahorros in Panama whose Christmas savings account pays no interest. A Christmas savings account requires periodic deposits of some fixed amount over a specified period of time—or in the case of the Caja de Ahorros, twelve months. There is a penalty for early withdrawal. At the end of twelve months, the customer/depositor receives exactly the amount deposited to the account. The real benefit to the depositor is hard to discern since deposits are not induced by interest payment but mainly from a desire to have money at Christmastime that would otherwise not be available. Examples of “informal” saving practices are the *Iddir* in the Horn of Africa, and the *Esusu* in Western Africa and West African communities in major U.S. urban centers.² The “formal” practice, in the sense of an overt government sanctioned practice without interest payment, is characterized by the Islamic banking system.³ The age-old Islamic banking practice of eschewing interest payment, although otherwise formal and similar to Western banking practices, is an alternative to the formal banking institutions that prevail in the West. Banks are, in the final analysis, nothing but business enterprises whose product is money. To attract deposits, banks pay interest that must be sufficiently high to induce depositors to forego current consumption—i.e. save. In the least risk scenario banks then turn around and use depositors’ funds to make loans to people who value present consumption above future consumption. Loan seekers, i.e. borrowers, wish to consume more than their current disposable income, which is possible only if the households on the other side of the ledge have current surpluses. What the Iddir and Esusu have in common is the absence of any role of interest as a mechanism for the transfer of funds. Moreover, the dilemma that Islamic banking institutions face is to devise a means of attracting deposits on which they pay zero interest and of making interest free loans. This is important because in an Islamic economy a substitute for interest must be found that will generate investible surpluses needed for economic growth⁴.

¹ Refer to Miracle (1973)

² Refer to Miracle (1973).

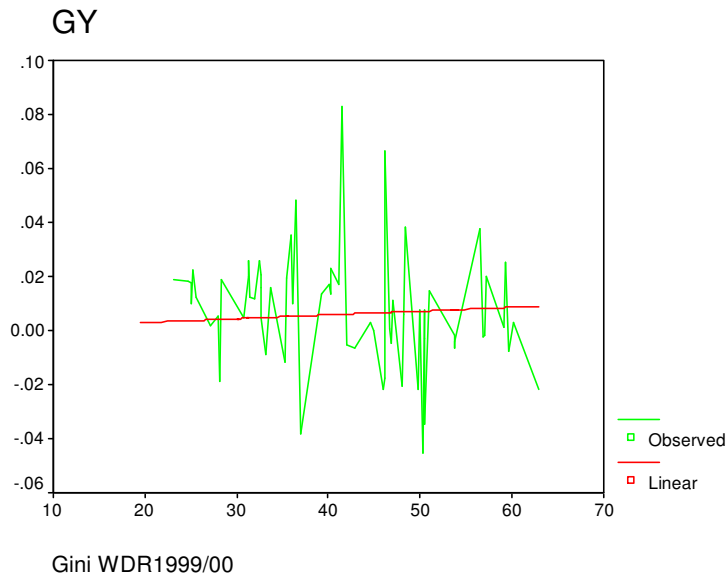
³ See the following relevant sources Naqvi (1984) and Bascom (1952)

⁴ Muhammad (1404-1984).

II. Distribution

About fifty-six percent of the world's population, namely, 3.1 billion people, live in low-income economies. Approximately 2.6 billion people or about 83 percent of low-income people live on less than \$1 per day⁵. In these countries, the distribution of income partly contributes to poverty that in turn leads to low saving. That is, inequalities in the distribution of income might contribute to the saving problem in many developing countries.

Paradoxically, policies designed to correct the actual income distribution might have a negative effect on a country's savings. For example, a policy that redistributes income from the top to the bottom 10 percent of the population might not increase saving at all and could in fact reduce it.⁶ The point is that it is possible to reduce economic growth by improving the distribution of income although the path through which this might happen is not clear. Redistribution that increases consumption among the poor might increase profits, and thereby investment. Since the actual distribution of income is measured by the Gini coefficient, which is an aggregate measure of inequality that can vary from perfect equality (zero) to perfect inequality (one), the relationship between distribution and growth in a cross section of countries can be analyzed. In Figure 1 the horizontal axis depicts Gini coefficients (in percentages) and the vertical axis denotes real GDP growth from 1980 to 1995 for 63 countries around the world. The actual data fluctuates wildly. However, the linear fit of the data is slightly upward sloping, which implies that countries with higher levels of income equality grew ever slightly more rapidly over the period. The upshot of this is that creating a political climate conducive to greater income equality would contribute ever so slightly to economic growth. The way that income is distributed in a society has consequences for that society's economic performance. The one caveat to consider in passing is the cost of generating more income equality.



⁵ World Development Report, Table 1 (1997)

⁶In a seminal paper Krugman and Taylor (1978) demonstrated that devaluation by favoring recipients of profit could lead to a reduction in national output.

III. Saving and Investment.

Below, Table 1 shows 11 low-income economies defined by the World Bank for income of \$760 annually or lower. Saving as a percent of GDP is between 1 percent in Chad and Mozambique and 20 percent in Zimbabwe and Cameroon.

Table 1 Saving to GDP ratio by income for selected countries in 1998

Low Income	Saving /GDP	Low-middle income	Saving /GDP	Upper-middle income	Saving/ GDP	Upper income
(\$760 or less)		(\$761-\$3,030)		(\$3,031-\$9,360)		(\$9,361 or more)
Cameron	20%	Algeria	33%	Botswana	35%	
Chad	1%	Egypt	10%	Gabon	na	
Cote d'Ivoire	13%					
Ethiopia	9%					
Ghana	13%					
Kenya	13%					
Nigeria	12%					
Mozambique	1%					
Senegal	15%					
Zambia	5%					
Zimbabwe	20%					

Source: World Development Report 2000.

The low-middle income countries are Algeria and Egypt, and the upper-middle income countries are Botswana and Gabon. No upper income country is listed.

It is believed that the rich have a higher propensity to save than the poor. But Table 1 implies that there is no systematic difference in saving ratios across countries. From 1980 to 1998 the saving ratios rose within the selected countries.

Income differentials across countries are manifested in differences in saving rates. Amorphous cross-country saving patterns are illustrated in Table 1 and Table 2. Low-income countries had higher saving rates than middle- and high-income countries; middle-income countries' saving rates are also higher than saving rates in high-income countries. In the decades of the 80s and 90s, high-income countries grew but low-income countries failed to grow. However, in low-income countries saving rates rose from 28 percent to 32 percent while in high-income countries saving ratios declined from 24 percent to 20 percent.

Table 2 Saving to GDP ratios across income levels

	1980	1998
Low income	28	32
Sub-Saharan Africa	26	15
Middle income	25	23
Lower	na	22
Upper	25	21
High income	24	19

Source: World Development Report 2000.

There are some who argue that this relationship is not quite as robust as might be predicted using a Harrod-Domar type analysis. For example, Easterly (1998) demonstrates that growth performance predicated by the Harrod-Domar growth model severely understates GDP growth in Zambia. This result is consistent with studies such as De Long and Summers (1991).

The relationship between investment and real output can be thought of in different ways. De Long and Summers (1991) and Barro and Lee (1993) find that fixed investment exerts a strong influence on income growth.⁷ When investment is defined differently, long-term growth can be analyzed within the framework of endogenous type growth models. In endogenous models, growth can be driven by investment decisions of profit-maximizing firms where the form of investment is human capital devoted to R&D (Romer, 1990).⁸ Knowledge plays a major role in productivity growth in Adams (1990).

The preceding discussion tentatively establishes some causal connection between distribution, saving, investment, and growth. It is also possible that the spurt in saving in low-income countries between 1980 and 1998 may be explained by micro saving activities not directly tied to income. In developing countries the poor do not have easy access to credit. They have had to devise ingenious ways for obtaining funds; some of these (Islamic banking, Caja de Ahorros, Esusu, and the Iddir) are discussed below.

IV. Islamic banking

In conventional Western banking practices, banks operate under a fractional banking system whereby a fraction of deposits is held in the bank's vaults or in the central bank of the country. Along with deposit insurance, fractional reserve banking is intended to militate against the possibility of runs on the banking system. In general, Western banks pay interest on deposits to depositors and are then able to make loans based on the difference between total deposits and required reserves—namely, excess reserves on which they charge interest. By contrast, Islamic banks pay no interest to depositors. The rationale for not paying interest is reached by a seemingly logical exercise in symmetric reasoning. The businessperson who spends time, energy, and resources to produce for sale in the marketplace is not guaranteed a profit. By contrast, a moneylender who spends no time, energy, or resources risks nothing but is guaranteed “a profit at a fixed rate”⁹. Interest payment is seen in the Islamic financial community as detrimental to full employment, equitable distribution, and economic stability⁹. How then to reward lenders? The answer is to base financing on the “viability and profitability of projects”.⁹

⁷Blomstrom et. al. (1996) finds no strong relationship between investment and growth.

⁸Jones (1995) finds no empirical support for the intensity of R&D and growth.

⁹ Ali p.7 (1997)

In this formulation of the relationship between supplying funds and making money is attached risks and above average future returns. Now the moneylender and the producer of real goods and services are exposed to risks of which profits are the rewards. Under the Islamic approach there is no guaranteed return to the moneylender. If the moneylender selects a project that on its merits is viable and profitable she makes money; if not she loses money. Ali (1997) identifies a number of financial projects and opportunities that meet the criteria of viability and profitability and embody risk in the West. These include venture capital, mutual funds and unit trusts, leasing, and cooperatives such as credit unions. The key to Islamic banking is participation with profit in which investors might profit from an enterprise by committing their knowledge, talent, or real resources.

The more interesting aspect of Islamic banking practices is that it causes saving to be higher than the “conventional” saving function of non-Islamic banking. This is so because income can be defined as the sum of investment and consumption. Investment is assumed to be invariant to the level of income. However, consumption can be broken out into consumption of givers and consumption of receivers. In the Islamic world people have obligations to the poor and *Zakat Mal*. *Zakat Mal* represents a mandatory tithe Muslims must make on any unused accumulated wealth. Thus the income of givers is reduced by alms to the poor and the tithes or *Zakat*. The receivers’ income is increased by the amount of the transfer from givers. Suppose then that the marginal propensity to consume is identical in the West and in the Islamic world, where the fraction of alms to the poor out of income and fraction of tithes out of income are fixed. The act of giving raises saving. According to Ahmad (1987) such a saving function is $S = -\alpha + (1 - \beta)(1 - z - \gamma)Y$, where $-\alpha$ is autonomous saving, $[(1 - \beta)(1 - z - \gamma)]$ is the marginal propensity to save, consisting of z the marginal propensity to give to the poor and γ the marginal propensity to give *Zakat*. In contrast in the West saving function is $S = -\alpha + (1 - \beta)Y$. The Islamic saving function, therefore, implies lower saving levels than in the case of the simple Western (i.e., Keynesian) saving function. A numerical example illustrates this point. Suppose in the West autonomous consumption α is 100 and the marginal propensity to consume is .9. If income is \$10,000, then saving will be $-100 + (0.1)(10,000) = 900$. Now suppose that in an Islamic banking system saving is calculated by assigning the same values to autonomous consumption and the marginal propensity to consume. In addition, let the marginal propensity to give to the poor be .1 and to give *Zakat* be .2. So the Islamic saving function yields saving equal to $-100 + (.1)(.7)(10,000) = 600$. The Islamic system makes growth dependent on consumption while the West makes it more dependent on saving channeled into investment.

V. Iddir

In Ethiopia the alternative to banks and insurance companies as sources of savings is the Iddir. The Iddir is a grassroots insurance program administered by a community or group to meet emergency situations.¹⁰ It is an informal association of people who share a common interest such as family membership, friendship, residence in the same district, affiliation by employment, and membership in the same ethnic group for the purpose of securing mutual aid and financial assistance under certain conditions. The original purpose of the Iddir was to provide the financial wherewithal for the burial of the dead, but it has evolved into an association that offers a multitude of services for its members. These services include financial and material assistance

¹⁰Aredo, Dejene (1993), pp. 77-90.

and consolation in difficult times. The Iddir started in Addis Ababa primarily as an ethnic affiliation of voluntary association among migrants but it has since transcended ethnic affiliation. The modern Iddir helps the poor to deal such risks as “funeral expenses, financial assistance to families of the deceased, and, in some cases, coverage of other risks such as medical expenses, loss due to fire or theft, etc.”¹¹. The Iddir codifies the duties and rights of membership, obligations, and functions of the Iddir officers.

The origin of the Iddir in Ethiopia has been traced to the Italian occupation from 1936 to 1941, when a great deal of foreign investment in buildings and road (by the Italians) took place. The Italian invasion caused many deaths and left families with no means to bury their dead. An association with an Iddir was a means of obtaining funds for burial. An unintended effect of the Iddir was its proliferation in the urban communities where it started to be seen as a way that the state could gain access to the urban population¹².

While I do not have figures for the 1990s, the evidence is that the Iddir grew rapidly in Addis from 395 in 1969 to 600 in 1973 to 1213 in 1983. In the case of a single Iddir that was established in 1948 the membership contribution was 10 cents a month, six months later it was 25 cents a month. The payment to a deceased member was Birr 50. However, by 1973 members were paying Birr 1 of membership fee and receiving Birr 150 for a deceased member.¹³

The Iddir can be classified by function: the community Iddir, the workplace Iddir, friend Iddir, and the family Iddir. The community Iddir originated after the Italian occupation. Presently, it consists of approximately 305 members who contribute about Birr 3 each per month. In 1993, the total financial asset of these Iddir was Birr 57,451.81, the bulk of which was bank deposits (Birr 40,201.1), representing 1,009 members in 34 Iddir in Addis. It is not clear that the interest from deposits is returned to the members in proportion to their contribution. It is also not clear that members received benefits equal to their contribution. What is clear is that the Iddir represents a source of saving that can be used for construction of roads and public utilities.¹⁴ Ethiopians do not join an Iddir to earn interest on their contributions. They seem to join the Iddir for financial support, for the range of services it offers, and for social and cultural reasons.

It is easy to see that the Iddir contributes not only to saving and investment but also to a larger multiplier effect than would otherwise be the case, because Ethiopians give to the poor and to the church. Suppose that the transfer to the church is the transfer to the poor. Income is the sum of consumption and investment, with investment assuming less importance in the scheme of things. Consumption can be separated as before into two components: (1) consumption by givers and (2) consumption by receivers. The consumption and the saving function of givers are linear in income. The consumption and the saving function of receivers equal the amount of total transfers. Further, let part of income be paid into the Iddir. These relationships are represented by the following six equations.

$$Y = C_1 + C_2 + I_0 \quad (1)$$

Equation (1) gives the relationship between income (Y), consumption ($C_1 + C_2$) and investment (I_0). C_1 is the consumption function of givers and C_2 denotes the consumption function of receivers.

$$C_1 = a + b(Y-G-D) \quad (2)$$

¹¹ Aredo(1993)

¹² Aredo p.81 (1993)

¹³ Aredo p.79 (1993)

¹⁴ Aredo p.83 (1993)

where a denotes autonomous consumption and b is the marginal propensity to consume by givers; G is the amount given to charity and D is deposits to the Iddir.

$$C_2 = G = gY \tag{3}$$

where g is the marginal propensity to consume by receivers.

$$D = dY \tag{4}$$

where d is the marginal propensity to give out of income.

$$S = -a + [(1-b)(1-g-d)]Y \tag{5}$$

Equation (5) represents the saving function derived from Equations (1) through (4). The first expression ($-a$) of the RHS of Equation (5) is dissaving and the bracketed expression of the second term $[(1-b)(1-g-d)]$ is the marginal propensity to save out of income. Under restrictive assumptions Equation (5) turns out to be the saving function of Ethiopia cum giving and deposits to the Iddir.

Below Equation (6) is an expression for the equilibrium level of income based on the assumptions of our simple model.

$$Y_e = \{1/[(1-b)(1-g-d)]\}(a + I_0) \tag{6}$$

The income multiplier for Ethiopia then becomes $1/[(1-b)(1-g-d)]$ identical to the Islamic income multiplier. The Ethiopia income multiplier is larger and the saving function generates less saving than the counterpart income multiplier in Western economies. A simple numerical example illustrates the saving, income, and multiplier effect of a hypothetical Iddir. For this to work, one has to assume that percent of income allocated to charity is higher where Islam prevails. Thus, suppose that the marginal propensity to consume b is .9, autonomous consumption is 1000, exogenous investment I_0 is also 1000, giving to God g is .1 and to the poor d is .05.

Country	Y	C	S	Multiplier
West	20,000	19,000	1,000	10
Ethiopia	20,000	19,300	700	11.76

The simple numerical exercise above illustrates the differences in consumption, saving and the multiplier of the Western model and one aspect of the Ethiopian model that includes the Iddir. With the Ethiopian Iddir, for identical income levels, saving is 700, the income multiplier is 11.75, and consumption is higher than in the West. The Ethiopian model would create a saving gap of 300 and is potentially expansionary, which might be overcome from external loans in the world financial community. The higher Ethiopian multiplier implies that an increase in autonomous spending from consumption, investment, or government would exert a greater impact on income and would be the case in the West. An extension of this idea applies to income transfers between countries. That is, Western transfers of income to poor Islamic countries. The net effect of such transfers would be to raise world net income. In particular, income in the Islamic country would rise by 11.75, but income in the West would fall by 10; the net gain in world income would be 1.75 *ceteris paribus*.

VI. Esusu

The *Iddir* in Ethiopia, the *Esusu* among the Yoruba of Nigeria and the *Ton Ton* among the Krio of Sierra Leone, the *upatu* among the Chagga of Tanzania, and the *susu* among the

Akan of Ghana¹⁵ share in common non-interest paying “deposits and loans.” The procedure utilized by each of these methods may differ in practice from place to place but not in intent. For example, the Esusu is a way of saving practiced by market women in Nigeria. A collector does the daily rounds of the market and collects a prescribed sum from each woman with membership in the Esusu. The arrangement must be based on the integrity of the Esusu collector.

All schemes for transferring money from savers to consumers are what Walker (1999) refers to as **ROSCA**, meaning Rotating Savings and Credit Association, which is made up of a group consisting of 5 or more people. The members are required to put a specified amount of money into an ‘account’ at every meeting, at which time one person becomes the recipient of the total amount collected. The form of saving is tantamount to a transfer of funds from savers to consumers. Interest payment plays no role in the transfer since there is no surviving pool of funds after disbursement that can be used to purchase interest-earning assets. The members thus have access to funds that they could not secure from the formal financial sector because they are poor and do not have the necessary collateral to guarantee repayment. The advantage of the Esusu or the Iddir is that the member is never liable for the entire amount of the money he or she received. During the next go-round the member who received the lump-sum payment will continue to contribute an amount equal to the contribution of each other member. There is therefore no debt overhang consisting of unpaid interest and principal forthcoming. Perhaps, the disadvantage of the system of transfer is that the member receiving the money has no incentive to save but simply to consume. Moreover, in recent years the Iddir has been putting part of members’ dues into banks where it earns interest while the principal is used for capital expansion.

Unlike the Iddir, which can raise the level of national income, it is unlikely that the Esusu would have a net positive effect on income for the economy where it is widely practiced. The reason is that the members are all likely to be of the same income class. In other words, they have the same propensity to consume. Their saving is forced by virtue of membership. The only possibility for growth in income is the nature of the expenditure. Income is the sum of consumption expenditure and investment. Consumption expenditure in developing economies is often on perishable consumerables—food, transportation, and clothing. However, if the collected money of the Esusu is used by a member for “investment” expenditure—building a house or as seed money for a new business—the economy’s stock of capital will have increased and thus, its ability to produce more income in the future. Since the Esusu has no apparent mechanism for channeling resources into investment, a member’s expenditure on investment or consumer goods is equally likely, i.e., random.

Conclusion

Developing countries are beset by insufficient saving because of low income and because formal financial intermediaries are scarce; saving is accomplished through formal and informal intermediaries. Examples of the latter include the Caja de Ahorros in Panama; in West Africa (and other parts of the world) is the Esusu (Ton Ton or Susu); in the Horn of Africa is the Iddir, and in the Middle East and elsewhere can be found Islamic banking practices. These systems have in common the absence of interest payments to depositors or to lenders.¹⁶

¹⁵ See Sefa Dei, George J. (1996).

¹⁶ Barro & Lee (1993)

In the West, the interest rate performs the role of allocating funds between savers and spenders. However, in many other parts of the world, with different values and philosophies, interest might not perform that function. This is true of informal associations such as the Esusu. It is true as well of the formal Islamic banking system in which interest is verboten; but where investors share in profits generated by the performance of business enterprises that the banks make possible.

Ironically, since Islamic banking practices mandate payments to the poor and to God, saving is necessarily lower, and the income multiplier is higher than in the West. The saving gap is also wider than in the West. In this system, part of disposable income is siphoned off for transfers to God and to the poor. Thus, Islamic saving practices tend to exacerbate the gap between saving and investment, while encouraging higher levels of consumption. In the immediate period, the saving gap would widen. However, income (and thus saving) will increase through consumption channels.

What is immediately apparent is that under very restrictive assumptions, transfers of income from the West to poor Islamic countries in Africa would increase income by more than it would reduce it. That would be the case since the income multiplier of Western banking practices is lower than the income multiplier of Islamic banking practices. From the computation of multipliers for the West and Islamic banking, the net gain in income would be 1.75. The more important observation is the creativity of poor people in developing countries to find a way of securing funds for various activities and transactions, funds that would not be available to them in formal financial markets that require collateral that would often be difficult or impossible for the poor to provide.

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