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The Power of the Market and Debt Overhang

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ABSTRACT

Classical economists claim that market forces function efficiently in commodity, labor and financial markets. However, Marxian and Keynesian economists object to their efficacy in labor market though on different grounds. Regarding loanable funds markets, this paper points out two issues. One is that lenders and borrowers sign a loan agreement without soliciting the consent of loan payers. It leads to debt overhang in government, corporate and household sectors. The other is that lenders judge credit worthiness of borrowers, besides the interest rate which they bid, by their clan, race or religion. Consequently, many loan applicants who belong to socially marginalized groups are excluded from the loanable funds market. Also, startup and small borrowing firms are required by commercial banks to pledge valuable collaterals which they lack and thus become the victim of credit rationing. To control debt overhang, it is therefore recommended that borrowers may be obligated to beseech consent of loan payers before signing a loan contract. Also, credit discrimination against eligible loan applicants belonging to any group may be discouraged and availability of credit to new and small firms may be made more accessible.

1. Introduction

Friedman and Friedman (1962, chapter 1), write, “The key insight of Adam Smith’s *Wealth of Nations* is misleadingly simple: if an exchange between two parties is voluntary, it will not take place unless both believe that they will benefit from it.” They add, “The price system is the mechanism that performs this task (voluntary exchange) without central direction, without requiring people to speak to one another or to like one another.” Then the authors explain the functioning of price system taking the example of the market for pencils. The price of pencils responds to any change in supply and demand conditions. It generates signals for manufacturers of pencils;

providers of inputs used in the production of pencils and end users of pencils. However, only that price of pencils perpetuates for some time that is called the equilibrium price at which supply of and demand for pencils become equal. In other words, it is the power of the market or willful contracting of price by counter parties which resolves amicably and efficiently the economic questions of a country without requiring any directions from a central authority or government. Rather any government interference through fixing floors or caps on individual prices distorts the price system and complicates the economic issues in the long run.

This line of thinking of classical economists is extended to labor as well as financial markets. That is, agreeing freely on a wage rate and on an interest rate by counter parties brings equilibrium in labor and loanable funds markets without requiring any restriction from a government and a central bank respectively. However, regarding labor market, Marx strongly objected to this viewpoint. In his view, the negotiated wage rate between workers and factory owners is generally downward biased due to excess supply of workers and some monopoly power of employers because of owning property and other means of production. Workers add, in his view, proportionately more value to the market price of a commodity than the share of wages in it. He calls this difference in the market value of a worker's contribution and wage rate as surplus value which is appropriated by firm owners. It ultimately divides the society in two distinct groups, 'haves' and 'have-nots' and ends up with bloody revolution.[1]

Keynesian economists also have some reservations about the efficacy of voluntary exchange in the labor market. For example, old Keynesian opined that nominal wages are downwardly rigid, and workers suffer from money illusion. That is, due to a fall in the demand for a product for any reason and then a decrease in its price, if its manufacturers want to slash wages of workers to maintain their profit margin, then many workers simply refuse accepting lower wages, they rather quit their jobs. As a result, unemployment rate increases. However, if government simply increases the money supply in the country, it will raise the general price level. Consequently, looking at their unchanged nominal wages, workers will continue their jobs though their real wage rate decreases which they realize, due to money illusion, only after sometimes.[2] Another view is that many firms on their own decide to pay higher than the market-clearing wage rate because they believe that workers who are being paid higher than market-clearing wage rates, work more diligently and more dutifully that helps reduce average per unit cost of production. However, due to this policy of paying higher wage

[1] See (Marx 1867), Ilegbinosa (2012) and Bais (2012).
[2] See Branson (2005, chapter 10) and Elsby (2005).

rate by certain firms, some involuntary unemployment exists in the labor market. Consequently, actual output tends to be less than its potential level. Thus, it leaves open some role for government to fill up the gap between potential and actual output.[3] Yet another view is that wages are mostly contracted for a certain period that may be six months, a year or many years, whereas prices of goods and services usually fluctuate depending on demand and supply conditions. Therefore, any unpredictable change in demand and supply conditions creates an undesirable situation in the labor market.[4]

Without looking into the validity of these arguments about the efficiency of labor market, the point to highlight here is that with regard to labor market, the power of the market has been challenged in one way or the other in the literature but with regard to the market for goods and services and the market for loanable funds, it has never been challenged. This paper, however, challenges the power of the market in loanable funds markets for two reasons. One is that in case of lending and borrowing, there are not just two parties as generally believed but there are three parties: lenders, borrowers and loan payers. In case of sovereign loans, government officials sign loan contracts, but the citizenry and future generations must pay back the loan. Similarly, in case of corporate loans, firm managers decide either to issue bonds in financial markets or to borrow money from commercial banks or both after getting their decisions vetted by shareholders. However, if the firm cannot pay back its due debt for any reason, then not only shareholders suffer but also other stakeholders of the borrowing firm such as employees, suppliers of primary and secondary inputs, customers of firm products and community at large. Even in case of personal loans, particularly if they are for a long time, the borrower does not necessarily pay them back due to uncertainty of life. Rather legal heirs must pay back the outstanding loans.

Therefore, it may be argued that without beseeching the consent of loan payers, borrowing at governmental, corporate and individual or household levels tends to be excessive. Theoretically, the net indebted position of a country must be zero. That is, lending by one individual and borrowing by another, or lending by households and borrowing by businesses and government should not result in any net indebted position in the economy. Practically, however, this is not the case. The outstanding debt of all three segments of the economy has been reeling up over time. It simply means that indebtedness of future generations or unborn babies is increasing over time around the globe. Although it is justified with the argument that the borrowed money is invested for the benefit

[3] See Gordon (2006, chapter 17), Mankiw (1990) and Riveros and Boutan (1991)
[4] See Gordon (2006, chapter 17).

of future generations, which certainly raises their standard of living as well as their ability to pay back the outstanding debt, yet it does not fit nicely with the very dictum of ‘free to choose’ that is the main motto of laisses faire system. According to this motto, standard of living rises in true sense if and only if one gets things of one’s own choice.

The other point is that loaning is not as impersonal as selling and purchasing is. In a sale and purchase deal, counter parties need not speak to one another or like one another’s ethnic, social or religious background as noted in the above quote. However, to lend money, lenders must know creditworthiness of potential borrowers that is allegedly linked with their race, cultural and regional background. That is, lenders extend credit not only looking at the interest rate offered by potential borrowers but also looking into their social and cultural upbringings to assess their inclination to pay back the loan along with accrued interest. As a result, individual lenders and lending institutions such as commercial banks, on one side, may exclude partially or fully loan applicants of some defamed social and cultural groups from credit facility and, on the other hand, may overload some of those belonging to favorite groups. Many researchers have discussed disadvantages of credit rationing for the economy as explained below.

The objective of this paper is to explain both factors which impede the power of the market in loanable funds markets. One is the lack of recognition of the third party, loan payers, in a loan contract and thus ignoring their consent at the time of contracting a loan. It could be one of the main reasons for ever increasing debt in an economy. The other is discrimination against or in favor of certain social and cultural groups in society. Arguably, creditworthiness is as much a personal attribute as it is a socio-cultural phenomenon, potential borrowers with favorable socio-cultural background are granted easy access to loanable funds markets whereas many others with strong economic credentials but belonging to unfavorable socio-cultural groups are granted limited access to loanable funds markets. To ensure creditworthiness of a borrower, whether an individual or a firm, lenders require valuable collaterals. However, the dilemma is that a poor person and starting and small firms, which need credit the most for a jump start, cannot afford valuable collaterals and thus remain excluded partially or fully from credit markets.

This paper is divided into four sections. After the introductory section, section two explains that non-representation of loan payers while signing a loan contract results in debt overhang in government, corporate and household sectors. Section three describes that credit rationing adopted by commercial banks results in somewhat excessive lending to one segment of society and inadequate lending to the other. Section four is reserved for conclusion and policy recommendations, if any.

2. THIRD PARTY IN A LOAN CONTRACT

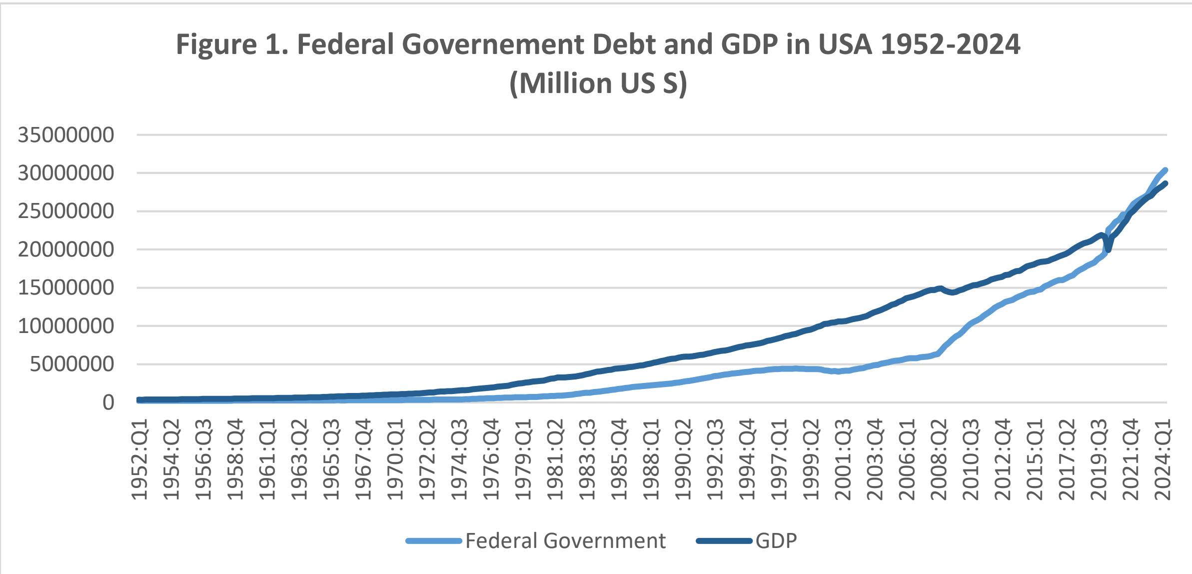
In loanable funds markets, government bodies, business firms and individuals lend and borrow money. In each case, besides the counter parties which sign a loan contract, there is a third party which pays back the loan. In the following three sub-sections, the third party in each case is identified and consequences of ignoring its consent at the time of signing the loan contract are surmised.

2.1 Government loans:

Officials of government bodies decide to borrow and sign loan contracts whereas the public must pay back the borrowed amount plus accrued interest through their taxes. Countries which rely on domestic and foreign debt to start their infrastructure and other developmental projects, on one side, their officials develop the attitude of moral hazard over time. That is, initially they justify moving borrowed funds from prescribed heads of expenses to some unauthorized but urgent or politically motivated heads of expenses. Then they gradually indulge in misappropriation of borrowed funds for vested interests and political bribery because personally they are rarely held accountable for such maneuvering of borrowed funds. On the other side, international financial institutions such as International Monetary Fund approve rescue lending usually with austerity conditions which may obstruct economic growth of indebted countries and create political unrest among masses. It goes against the very logic of initial borrowing that is to accelerate economic activity of a borrowing nation. Also, a big portion of rescue loans, not linked with any specific developmental projects but for structural reforms in general, usually go to service outstanding debts rather than being spent on improving the living standard of masses. That is, such loans are given to defaulting countries with the condition to pay back outstanding loans first so that their lenders, mostly the private international banks, keep floating. For example, noting the arrival of IMF mission in Greece before the formal request for help by Greece officials and grant of unprecedented amount of 30-billion-euro loan to a country with a record high debt to GDP ratio of 180, Penet (2018b) concludes that the IMF loan to Greece was destined primarily to rescue lending institutions of France and Germany rather than resolve Greece’s debt problem.

It is reminiscent of the colonial era, when despotic governments used to borrow not to improve productive capacity and infrastructure of the country significantly but to suppress the population and subjugate them to pay higher taxes.[5] Such a borrowing has never been appreciated in academic circles and is therefore known as odious debts. Though masses pleaded for repudiation of such loans, only a few of such debts had been cancelled. Nowadays, governments of many developing countries and even some developed countries such as Greece are blamed for borrowing heavily and misappropriating borrowed money for vested interests and personal gains. Even lenders are being blamed for agreeing to lend in some cases even if they know that the loaned money will not be utilized to enhance the productive capacity of the country but to roll over the outstanding debt or to save the lending banks from possible default.[6]

According to Friedman and Friedman (1962, chapter 1), in today's world, the maxim of 'free to choose' may be observed it its fine form in three countries: Hong Kong, Britain and the United States. That is, the power of the market in these countries must be functioning supposedly closest to its potential. That is why the USA data, the biggest of them, is being used in the following diagrams to show that the power of the market has probably not been functioning properly. Figure 1 shows the federal government debt in USA for an extended period of 73 years starting from 1952 to 2024.



Source: Federal Reserve Board (2024) *Financial Accounts of the United States* Table Z-1

The graph clearly indicates that the maxim of 'free to choose' does not operate as nicely in loanable funds markets as it does in commodity markets. The federal government debt has been continuously increasing since 1952. It even surpassed GDP of the country after the incidence of covid-19. It

[5] See Basaran (2023).
[6] See Stiglitz (2015) and Penet (2018a, 2018b)

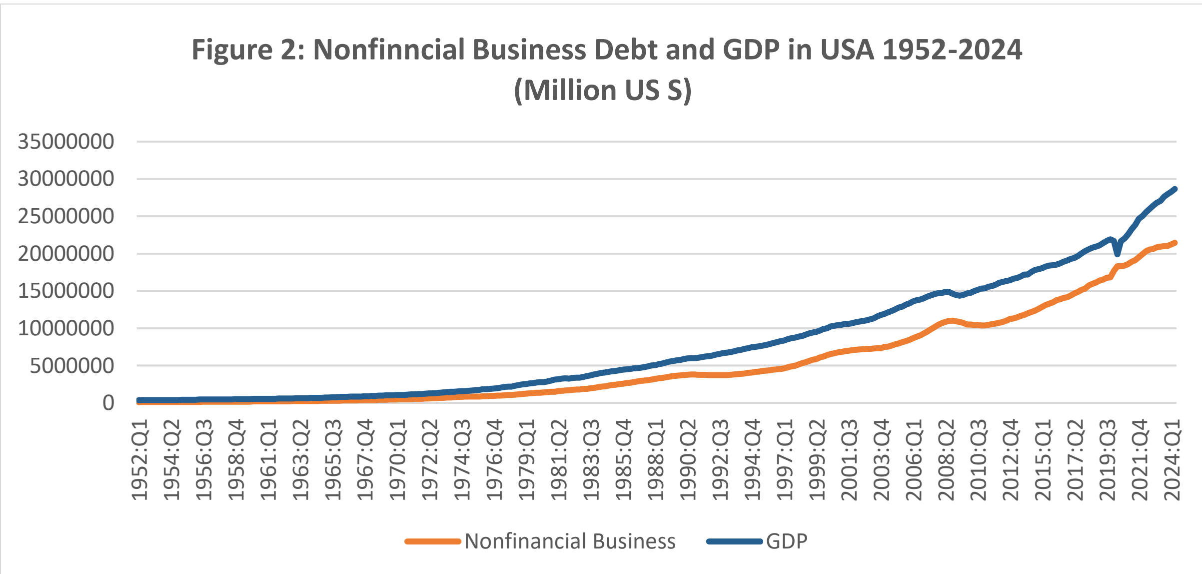
shows that every administration in the United States has been burdening future generations to pay back a staggering amount of debt. This trend if continues, then debt overhang will keep on bulging till the Dooms Day.

2.2 Corporate debt:

Incorporated firms are legal entities. They are owned by shareholders and ruled by professional managers. Unlike non-incorporated firms, management of incorporated firms is separated from their ownership. These firms can lend and borrow money on their own account without involving any of their shareholders. Firm management decides lending and borrowing after getting its decisions vetted by shareholders who are their legal owners. With borrowed money, if the firm makes money, one part of the difference between realized profit and interest rate goes to shareholders as dividends and the other part is kept as retained earnings which firm managers reinvest and utilize for their perks and privileges. On the other hand, after borrowing money if any shareholders suspect the firm of losing money, they have the right to sell their shares and escape expected losses. Those shareholders who keep their shares till the end and the firm loses money and is ultimately declared bankrupt; their loss cannot exceed their shares' value. This institutional flaw, directing all financial gains of debt financing toward shareholders but escaping them from financial loss of debt financing by giving them the right to sell their shares at will and by limiting their liability to shares' value, persuades shareholders to vote for more debt financing than barely needed.

Many influential authors such as Wolfson (1996 and 1994), Minsky (1986) and Fisher (1933) have argued that debt financing is a cause of business cycles or at least it exacerbates business cycles initially originated from real factors. Minsky's famous financial instability hypothesis explains that at initial stages of an expansionary phase, there is mostly hedge financing. That is, firms borrow to finance mostly those investments which are expected to generate sufficient cash flows, even in adverse circumstances, to pay back scheduled debt payments. After validation of hedge loans once, twice or several times, then lenders as well as borrowers are psychologically encouraged to extend their loaning relationships for speculative investments as well. Speculative investments are those which are expected to generate sufficient cash flows, under normal business circumstances, to service debt payments but borrowing firms may find difficulty in paying due debt payments under adverse business situations. A few times timely payment of speculative loans tempt both parties to go for Ponzi financing. Ponzi loans are taken to finance those investments which are expected to generate sufficient cash flows in the later part of their life to cover the total expenses but may require further borrowing in initial periods of their life. Such type of financing is usually observed near the peak of a business cycle. This situation is prone to any adversity in economic conditions or any regulatory tightening of monetary policy in the country. Any default of few heavily indebted firms because of economic hardships or regulatory restrictions on further lending generates a contagion effect in loanable funds markets. Consequently, a flurry of bankruptcies erupts in financial and non-financial sectors, and the price mechanism collapses in this situation. That is, fresh lending and borrowing comes down to the minimum level. [7] Fisher's debt deflation theory contains the same story.[8]

In such a panic situation, either government or the central bank must come forward for the rescue and to put the system back on track. It does not happen free of cost. To bail out the system, either taxpayers' money is paid out by the government or the central bank, as a lender of last resort, creates new money which is paid back by future generations. It gives slowly, on one hand, a new life to the price system in loanable funds market to work with but, on the other hand, it develops the moral hazard attitude as all lenders and borrowers who had gone deep into speculative and Ponzi financing and thus have paved the way for financial catastrophes are not punished equally. Borrowing firms, particularly small ones, are let to face bankruptcy proceedings but lending banks particularly big ones are bailed out under the pretext of 'too big to fail.' The result is that the system becomes fragile but becomes operative in full swing again. Figure 2 shows non-financial business debt in USA. Like the federal government debt, it has also been increasing continuously since 1952 though it has not exceeded GDP of the country yet.



Source: Federal Reserve Board (2024) *Financial Accounts of the United States* Table Z-1

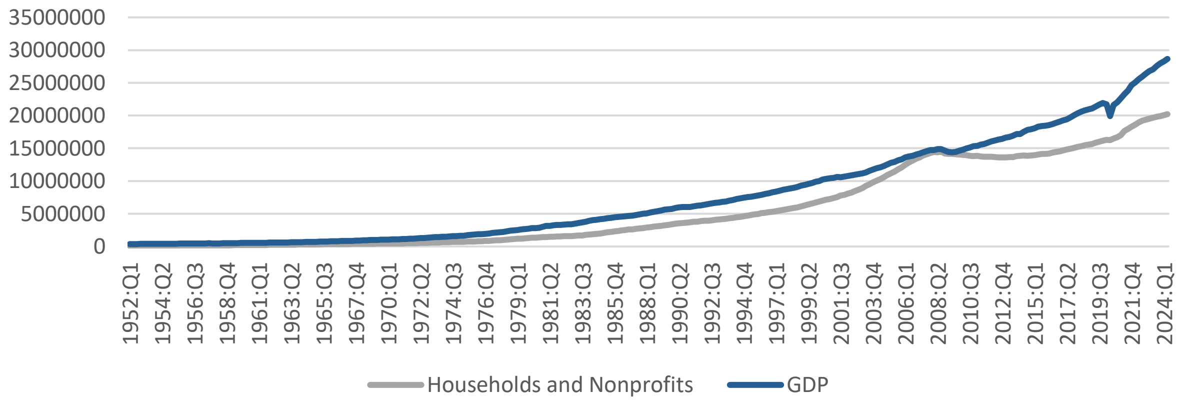
[7] See Minsky (1992, 1986 chapter 3, 4, 9 and appendix A and 1977).
[8] See Fisher (1933)

2.3 Household debt:

Commercial banks usually do not extend credit so eagerly to individuals as they do to incorporated and non-incorporated firms and government bodies. The main reasons are transaction costs and problems of adverse selection and moral hazard due to information asymmetry. Households usually borrow money to purchase durables; therefore, the loan amount is normally much less than the amount of an average business loan. Documentation and processing costs being almost the same whether the loan amount is in millions or in thousands, banks hesitate to offer personal or micro loans. Another reason is that the credit history of households is normally not as much documented and perfected as that of business firms which hire professionals for record keeping. Therefore, probability of adverse selection and moral hazard is higher in case of loaning to individual borrowers.

However, after the advent of information technology revolution and introduction of credit cards in the early 1990s, personal lending is no longer restricted to purchase durables but is also available to purchase non-durable consumption goods. The result is a significant increase in household loans. It is an indication of the fact that being not obligated to take the consent of their heirs for any borrowing, people tend to borrow more than they barely need. It is burdening future generations, without their consent, to pay back this ever-increasing amount of debt. Figure 3 depicts household and nonprofit organizations debt in USA. It has increased tremendously though it declined slightly in 2008 after the onset of Global Recession and remained almost stagnant for several years. It started picking up again in 2015 and continues to grow consistently since then.

Figure 3: Household and Nonprofit Organizations Debt and GDP in USA 1952-2024 (Million US S)



Source: Federal Reserve Board (2024) *Financial Accounts of the United States* Table Z-1

3. CREDIT RATIONING IN LOANABLE FUNDS MARKETS

Friedman and Friedman (1962) write, “When you buy your pencil or your daily bread, you don’t know whether the pencil was made or wheat was grown by a white man or a black man, by a Chinese or an Indian. As a result, the price system enables people to cooperate peacefully in one phase of their life while each goes about his own business in respect of everything else.” This neat description of the price mechanism seems fully true in context of commodity markets, but it cannot be generalized in context of loanable funds markets. The reason is that while loaning their funds, lenders are equally concerned about the interest rate which potential borrowers offer to pay and about their race, social and cultural background and religious beliefs. Having limited access to know the ability and true will of individual borrowers to pay back their loans, lenders conventionally tag individual borrowers with the reputation of a larger group to which they belong. In this regard, Hunter (1995) writes, “Analysis of the raw data contained in the annual HMDA data releases shows that there are persistent disparities in denial rates between white and minority applicants.” Turner and Skidmore (1999) state, “There is no question that minorities are less likely than whites to obtain mortgage financing and that, if successful, they receive less generous loan amounts and terms.”

Credit rationing, in simple words, means that while borrowing money, if black persons offer the same interest rate as do white persons, even then commercial banks allegedly grant black applicants less amount than their demand or simply deny them any loan. Banks justify their position on economic grounds. Being a profit-maximizing entity, the bank is supposed to accept not only higher interest offers over the lower ones but also to make sure that it will get back the principal and accrued interest amount from its borrowers. Since the probability of getting back the loaned amount from black persons is lower, therefore the bank cannot be blamed for not extending credit to them. However, a black person who can do little, in personal capacity, to improve the overall credit rating of black people as a community remains at a disadvantageous position in the loanable funds market for ever. It means that the price system in loanable funds market does not enable every potential borrower to participate in loanable funds market.

In context of business firms, to make up any deficiency in creditworthiness, banks demand collateral and high net worth. Both requirements are positively linked with the size and life of the business. That is, a big and a long-established firm is more likely to meet collateral and net worth demand of lending institutions than a small and newly established firm. Due to this requirement in addition to interest rate offered, small and medium size enterprises (SMEs) find difficulty borrowing money from commercial banks. Jin and Zhang (2019) and Gou et al. (2016) found that the smaller the enterprise size, the higher the probability of being rationed out in financial markets even though they come up with equally profitable projects with respect to employment creation and economic growth acceleration. The main reason is that SMEs and startup firms lack tangible assets such as real estate, machinery and equipment which they can collateralize. It means that lending institutions sidestep SMEs and new entrants in the industry that also goes against the infamous argument of 'infant industry' to protect promising domestic firms from foreign competition by imposing tariff.

4. CONCLUSION AND POLICY RECOMMENDATIONS

Classical and new classical economists believe that market forces function perfectly in commodity, labor and loanable funds markets. In their view, voluntary exchange at a mutually agreed upon price in each of these markets indicates that each party is satisfied with the outcome, otherwise it would not have been a party of the exchange. In other words, flexibility of prices, wages and interest rates to the point where quantity supplied and quantity demanded in corresponding markets become equal manifests the fact that the price mechanism works fine without requiring any central direction. Any government intervention in the price system such as fixation of minimum wage rate or maximum price of a commodity or a minimum interest rate to be paid to depositors or a maximum interest rate to be charged to bank borrowers benefits one segment of the society at the cost of the other. That is why classical economists do not recommend any role for the government in private economic activity.

Marx and his followers raised serious issues about the functioning of labor market. In their view, the agreed upon wage rate in the labor market is mostly less than the contribution of an average worker to the value of underlying product and the difference is taken away by producers and firm owners. It creates a class system, the workers who are being exploited and the firm owners who exploit workers. It ultimately leads to two somewhat antagonistic groups of 'have-nots' and 'haves' in society. That is, the power of the market in the labor market does not guide society to a congenial but an hostile atmosphere. Keynesian economists have also pointed out several issues of the price mechanism in the labor market such as downward wage rigidity and money illusion, contractual jobs implying somewhat inflexibility of wages both upward and downward, and fixation of efficiency wages above the market-clearing wage rate by many firms. These problems, however, do not pave way for a revolution, rather they can be solved by appropriate regulatory policies of the government.

So far, none of the three main schools of thought; classical, Marxian and Keynesian, have criticized the price system in the context of loanable funds markets. This paper describes two weaknesses. One is that unlike two counter parties in a sale and purchase contract, there are three parties in a loan contract: lenders, borrowers and loan payers. While contracting a loan, nevertheless the consent of loan payers is rarely solicited. It arguably tempts lenders and borrowers to exceed the optimal limit of debt. The other is that unlike price as the major determinant for the supply of a commodity, in a loaning deal, creditworthiness of borrowers is even more or at least as important determinant for the supply of credit as the interest rate is. However, assessment of the credibility of an individual loan applicant is a difficult task whereas that of a group to which the loan applicant belongs is relatively easier. Therefore, lenders justify their credit rationing based on credit rating of larger groups of individual loan applicants. However, it does not make economic sense from the perspective of equally eligible applicants whose loan application are turned down. The reason is that everyone is born in a group without one's own discretion and one cannot do much individually to improve credit rating of the group.

To substantiate the two weaknesses empirically, debt overhang in USA, the biggest country where economic policies best reflect classical thinking, has been discussed. Theoretically borrowing by a government should be mainly to develop infrastructure, communication, health and education systems of the country to a sustainable level. It should never exceed the point where its repayment requires further borrowing. At that level, these investments add to the productive capacity of the economy and thus lead to higher tax collection to pay back these loans. If borrowing in a country goes on increasing over time, it indicates that the amount borrowed is not fully utilized for the right purpose. There is some leakage of funds for unauthorized projects and vested interests. It happens to occur because government officials usually hide terms and conditions of states loans from the public so that they cannot demand transparency and due monitoring of borrowed funds.

The same is true with respect to corporate loans. By law, the liability of shareholders has been limited to their initial purchase price of shares almost in every country. Financing additional investment by equity capital can raise the expected profit rate for shareholders if and only if the expected profit rate of new investment is greater than that of the existing investment. However, if financing is by borrowed money, then the expected profit rate for shareholders increases even if the expected profit rate of new investment is less than that of the existing investment but is greater than the interest rate on borrowed money. Firm management decides financing of new projects either by borrowing or by equity after taking the formal approval of shareholders in general body meetings.

Since an increase in debt equity ratio of a firm benefits shareholders by increasing their expected profit rate and benefits firm managers by increasing net cash flows which they can appropriate for their perks and privileges, they tend to borrow more than warranted.

Initially commercial banks hesitated to grant loans to individuals due to relatively heavy transaction costs and high possibility of adverse selection and moral hazard. As a result, the proportion of household loans in overall indebtedness of the country remained at modest level. However, information technology revolution changed this situation. Now, creditworthiness of individuals can be established and disseminated easily through electronic media. Consequently, banks have started issuing credit cards to individuals aggressively. As a result, many individuals have started spending more than their regular income because they are not required to beseech consent of their legal heirs before borrowing. Hence, household debt has also increased significantly. It has not only put at stake financial liberty of borrowing individuals in their future life but has also threaten financial independence of future generations to a great extent.

Besides the interest rate which potential borrower are willing to pay, lenders also assess their creditworthiness. Since the assessment of creditworthiness of an individual borrower is an uphill task and that of a larger group is relatively easier, therefore creditworthiness of the individuals is tagged with their respective larger groups. It seems rational from the perspective of a lender but irrational from the perspective of a potential borrower who can do little individually to improve the credit ranking of a down-graded group. It means that the power of the market creates a sense of deprivation and helplessness among capable individuals belonging to those social and cultural groups which are looked down in society.

The two problems which arise due to debt financing; debt overhang and exclusion of capable members of a denounced socio-cultural group from the credit market need to be addressed. One recommendation is that individual borrowers in general, and government bodies and incorporated firms in particular should be obligated to solicit consent from loan payers. That is, loan payers must approve the timetable of expenditures and disbursements of borrowed amount over the loan period and other terms and conditions of the loan before submitting a loan application to lending banks and institutions. After getting the loans, loan payers should be given access to verify whether the loan is being utilized in accordance with the projected data or not. The other recommendation is that credibility of individual borrowers should be assessed from their own credentials rather than tagging it to the infamy of wider social and cultural groups.

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