Financing Sovereign Developmental Activities Through Non-Interest Bearing Instruments

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Abstract

It is well established that countries require investments in infrastructure, education, healthcare and institutional development for long term growth in income levels. However, due to the positive externalities associated with these sectors and issues such as non-excludability and non-rivalry, participation from private sector in these areas is generally inadequate and it becomes necessary for the state to intervene for optimal capital allocation. Generally, the quantum of funds required for nationwide developmental programs exceeds the resources that states can generate through one-time taxation and shortfalls are usually sourced from debt markets. Sovereign borrowing has recently attracted attention given the deteriorating credit quality of some nations resulting from heightened borrowing during the financial crisis. From an Islamic perspective, interest based borrowing is classified as a transaction based on riba, and therefore forbidden, by an overwhelming majority of scholars. This paper attempts to understand developmental activities pursued by governments and to explore alternative approaches to finance such activities without resorting to interest bearing instruments. Such alternatives include public-private partnerships, tax incentives, developing Corporate Social Responsibility (CSR) programs, auctioning scarce resources, and sovereign divestments.

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*Keywords*: ?????

# **1. Introduction**

The term ‘development’ has been used in a fairly broad sense in the realm of economic studies and social sciences. Generally speaking, development is used to refer to economic progress, an increase in productivity and improvements in the quality of life. Therefore, developmental activity can technically encompass an infinitely wide range of institutional and independent efforts that could potentially result in economic benefits and facilitate value generating transactions for a given target population. The question of financing developmental activities gains prominence since a substantial number of the prerequisites for economic development are not economically viable and hence come under the prerogative of governments and other organizations that have a social mandate to generate funds to function and implement such plans.

In the present era of highly monetized societies, the powers to tax economic activity and to borrow on behalf of the public have become some of the most important manifestations of sovereign authority. Governments – democratically elected or otherwise – routinely borrow funds from local or foreign sources to arrange the necessary finances to function and to carry out their mandates. A substantial part of the resources generated by governments is spent in the pursuit of social and economic development of the society. For example, sources estimate that 43% of the total $6.12 trillion federal and local government spending in the U.S. for the year 2012 was spent on health, education and welfare.[[1]](#endnote-1)

An objective study of welfare and development would necessitate defining the measurable parameters for a robust and practical understanding. A majority of the literature in economics substitutes quality of life and wellbeing with per capita income. While questions have been raised over the rationale behind such a direct relation,[[2]](#endnote-2) adopting this line of thinking simplifies our problem as we look at development as long-term growth in income levels. Neoclassical economic models list population growth, physical capital investments and level of schooling as the prime drivers of economic growth.[[3]](#endnote-3) Studies have also linked a country’s infrastructure, the health of its population, the dependency ratio, and the size of government to its ability to sustain long-term growth.[[4]](#endnote-4) Research also identifies some fundamental factors to economic growth including institutional quality[[5]](#endnote-5), economic integration[[6]](#endnote-6), geography[[7]](#endnote-7) and ethno-linguistic fractionalization.[[8]](#endnote-8) Human and social capital is also seen as a key driver of long term growth.[[9]](#endnote-9) It is clear that governments have a significant role to play in influencing the factors that are understood to result in economic growth. In addition, efforts to improve the quality of healthcare and to improve infrastructure are capital intensive and the scale of projects generally forces governments to tap into debt markets to generate the finances required to carry them out.

Accordingly, this paper looks at the economic justification for governments’ involvement in certain sectors such as infrastructure development and education to facilitate the progress of economic development. The paper will look at the different aspects of sovereign borrowing, sovereign debt default and restructuring. We conclude by discussing various strategies, policies and devices that governments may adopt to stimulate private investments in developmental activities and therefore limiting deficit spending.

# **2. Role of the State in Development**

It is well established in economic theory that purely market-based outcomes do not result in optimum allocation of capital for developmental efforts.[[10]](#endnote-10) Such under-allocation of capital may be due to a variety of reasons. For the purpose of this study, four major reasons are identified here. Firstly, the appropriation of the benefits of certain welfare efforts may be low. For example, while the total benefit derived by a society from complete literacy may be high, it is difficult for private players to capture this benefit and hence, private participation in mass literacy programs could be lower than the optimal level.[[11]](#endnote-11) Secondly, a related concept is that of positive externalities. Certain activities such as higher education and R&D spending by firms, apart from the benefits to the parties directly involved, may have positive effects on the overall economy In such cases, government action is warranted to optimize investments in such activity. Conversely, negative externalities such as pollution, discharge of industrial wastes and so on should also be addressed by the government through taxation and other legislation.[[12]](#endnote-12) Thirdly, non-excludability and non-rivalry or the problem of the commons may present an issue. In general, when it is not possible to exclude economic entities from the benefits of a certain resource, there is no incentive for these entities to invest in such resources leading to their deterioration in the long term. Infrastructure, such as urban roads, defense forces and so on, suffer in this regard. In such cases, a government may deem it necessary to tax the general population for the optimum allocation of investments in these shared resources.[[13]](#endnote-13) Fourthly, financial markets have a limited 'time horizon' and since the pay-back in certain sectors such as infrastructure projects may exceed the time horizon of market expectations, governments may have to step in and act as intermediaries by generating funds from the market through short and medium-term bonds and invest the money in long-term projects.[[14]](#endnote-14)

Given all these factors, investment in developmental activities generally requires intermediation by governments, which generate revenues through taxation, and uses the money to create and maintain common resources such as infrastructure and on welfare programs. There are also other related roles a state has to play. For instance, Keynesian economics recommend that governments should step in to prop up spending during a business down-cycle to help the overall economy avoid a spiral decent into a recession.[[15]](#endnote-15) In addition, sovereign spending in investments and in infrastructure can bring economies of scale.[[16]](#endnote-16)

As stated above, a government’s role is both necessary and vital for the optimum allocation of capital to certain sectors. In the course of their functioning, governments routinely face revenue shortfalls as expenditures exceed their income. The situation is further exacerbated when nations face large one-time expenses in events such as war, natural disasters, infrastructure expansion, and so forth. To make up for the shortfall, governments regularly source capital from debt markets. Many governments are faced with a perennial deficit problem, as short-term oriented leadership push costs (especially regarding populist measures) into the future through deficit funding. It is therefore important to look at alternatives to the dominant, but unsustainable route of deficit financing of government projects.

Notwithstanding the Islamic aversion to debt, from an economic perspective also, the need for flexibility in raising finance is vital. The ongoing European Debt Crisis is a strong indication that countries ought to think twice about engaging in debt finance as the only solution to sovereign deficits. Historically, countries have followed a boom and bust cycle of sovereign borrowing and debt default or restructuring over the last few centuries.[[17]](#endnote-17) Such defaults, or restructuring of debt, are always associated not only with an economic price, but also involve heavy political consequences too.[[18]](#endnote-18) It would be wise for a nation to operate within its financial limits and prevent itself from falling into such frailties. In this paper, we shall look into several options available for sovereigns to fund their deficits apart from relying on debt markets.

# **3. Sovereign Borrowing**

For several centuries, sovereign borrowing has been one of the most accepted forms available to nations to cover their deficits. Historically, as nations had passed through several cycles of distress and duress, the kings or rulers were forced to borrow from the public, especially from religious institutions that stockpiled their treasuries.[[19]](#endnote-19) In the event of natural calamities or wars, rulers usually appealed to the public to fund the state treasury in order to address the short and medium-term deficits, as solutions like additional taxing always came with a lag.

Modern economists regard sovereign borrowing as a necessity for enhanced growth and development. They assert that a nation should not discard the opportunity to raise funds while borrowing, because such funds could be utilized for developmental activities that could drive the growth of the economy. In other words, if a nation were to refuse such an option, it would be denying itself the prospects of growth and development. Further, it has also been argued that sovereign investments in infrastructure leads to the emergence of economies of scale, and therefore a nation ought to strive for such an outcome by taking on sufficient debt levels.[[20]](#endnote-20) The focus here is on debt contracts that are incentive compatible. To take full advantage of such economies of scale, researchers argue that public and private financial institutions may need to lend amounts above some threshold to force the borrowing sovereign to take full advantage of any economies of scale that may be present.[[21]](#endnote-21)

It is now very common that even if a country is running a budget surplus allowing it to easily repay its sovereign debt, it might still continue to run a deficit.[[22]](#endnote-22) For instance, as per 2011 data, Saudi Arabia, which is running a budget surplus of 14.7% of GDP, has a public debt of 9.4% of GDP (Exhibit 1 shows sovereign debts of nations as a percentage of their GDP and Exhibit 2 shows budget surplus/deficit of countries as a percentage of their GDP).[[23]](#endnote-23) However, some scholars have empirically tested and asserted that nations should pay off their debts instead of holding reserves.[[24]](#endnote-24) Alfaro and Kanczuk (2009) argues that reserve accumulation may reduce sustainable debt levels and therefore it is optimal not to hold reserves at all. They claim that their findings are robust even while tested for interest rate shocks, sudden stops, contingent reserves and reserve dependent output costs.

Modern banking has played a significant role in making sovereign borrowing an integral part of a nation’s monetary policy. At present, almost every single nation in the world is indebted irrespective of whether it consistently produces a surplus or deficit budget. Modern banking systems ensure that at the very outset governments are indebted to their respective reserve banks through the bonds they issue, which are bought by the reserve banks at a cost plus lending rate. Although most developed nations borrow from the public by issuing bonds, securities or other bills, less credit-worthy nations directly borrow from other nations or other international monetary organizations such as the World Bank, the International Monetary Fund, or other financial institutions.

# **4. Sovereign Debt Default and/or Debt Restructuring**

Sovereign default or debt restructuring by nations are as old as sovereign borrowing itself. The first recorded default may be traced back to the 4th century B.C. when ten out of thirteen Greek municipalities in the Attic Maritime Association defaulted on loans from the Delos Temple.[[25]](#endnote-25) Nations mostly resorted to currency debasement – inflation or currency devaluation – as the most preferred method to avoid a debt default or restructuring. However, since the nineteenth century even this became increasingly difficult and debt crises or defaults or restructuring increased in magnitude, both in terms of numbers, as well as geographical impact. This was due to the increase in cross-border transactions and debt flows, newly independent governments, and most importantly their relations to the modern financial markets.[[26]](#endnote-26) Financial markets have even a greater role in monetary unions such as the Euro zone, where they can force sovereigns into defaulting, as member countries have less control over the currency in which debt is issued.[[27]](#endnote-27)

Historically, sovereign borrowing and default has followed a cycle of boom and bust (Exhibit 3 shows the pattern of debt defaults during 1900-2006).[[28]](#endnote-28) In the last couple of centuries there were hundreds of defaults and restructurings across the world, that could be attributed to the turbulent political history of the period, including wars, revolutions, and civil conflicts, as well as economic downturns such as the one witnessed in the recent past. These phenomena have made the debtor governments either unwilling or unable to pay their debts.[[29]](#endnote-29) The macro-economies of debtor nations are destabilized by the borrowing boom and subsequent bust, especially as the busts have led to austerity.[[30]](#endnote-30)

Neither creditors nor debtors learn from history to reduce such incidents, but instead such cycles seem to keep recurring.[[31]](#endnote-31) The reality is that the blame for such crises involving debt default or restructuring and/or the international banking crises cannot be solely put on the nations alone, but should be shared by all the parties involved in the modern banking system, where international banks initially lure countries to borrow more than necessary with low interest loans, which later increase to exorbitant levels and lead to defaults.[[32]](#endnote-32)

From an economic perspective, there are countering arguments on either side, not just on whether a nation should continue its deficit policies, but also on whether to default or not. On one hand, economists argue that countries should avoid default at any cost, as it might come with spiraling pitfalls affecting growth of trade, credit-worthiness, access to new credit, increment in borrowing, and so on. To make things worse, this delay in default would actually end up with a more grievous outcome.[[33]](#endnote-33) However, there are others who argue that the economic costs are actually negligible, especially from a long-term perspective and that countries should default at certain stages rather than prolonging the process, which could engender more severe repercussions.[[34]](#endnote-34)

The decision to default is therefore taken by a sovereign after weighing the costs and benefits of a default. The main benefit of a default or restructuring is the reduced repayment burden, which is often called a ‘haircut’ for creditors. There are many facets of the costs of a default, such as loss of reputation, loss of access to current and future private market capital, and so on.[[35]](#endnote-35). However, despite the perspective of either school of thought, it is unanimously agreed upon that a sovereign default leads to serious political turmoil.[[36]](#endnote-36) These events often end with the parties in power being overthrown, especially in a democratic environment, and this is one of the major reasons why politicians delay defaults to their best ability.

The most preferred method by sovereigns to delay or even bypass a possible default is currency debasements. Some economists have pointed out that nations, unlike individuals, have the luxury to print currencies on will to pay their deficits. A prominent example of this power was the decision of Nixon Administration in 1971 to unilaterally cancel the direct convertibility of US Dollars for gold, thus suspending the Bretton Woods system of international foreign exchange.[[37]](#endnote-37) Although the printing of currencies is accompanied by currency devaluation and inflation, sovereigns are still able to cover at least a portion of their deficits via such measures. However, in modern times, the increase of cross-border transactions as well as the flows of external debt and the advancement of modern financial markets have left sovereigns with less leeway in such regard. To make matters worse, countries in the Eurozone could not use such measures at all, as they are unable to print their currencies individually. These countries, therefore, have lost the flexibility to monetize their debt, unlike other sovereign nations such as the U.S. and the U.K.[[38]](#endnote-38)

There have been differing arguments on whether a government default has a minor or major impact on future debt credibility. According to some scholars ‘debts which are forgiven will be forgotten’, and this has significant incentive for moral hazard.[[39]](#endnote-39) Other scholars argue that sovereign defaults are among the main conditions for subsequent borrowing and creditors will seriously take into account their previous losses.[[40]](#endnote-40) In any case, unlike in the past, it is expected that any present or future default will have significantly more international repercussions, and that the risk that one nation’s default may create a world-wide financial and economic crisis are very high due to the complex inter-linkages in current markets.[[41]](#endnote-41)

Sovereign borrowing has come under much scrutiny recently with the debt crisis in Europe and the ratings downgrade issued by the S&P to U.S. Debt in 2011.[[42]](#endnote-42) The global slowdown in 2008 prompted governments across the world to indulge in massive stimulus measures that resulted in the deterioration of their fiscal positions. The fallout in the credit markets first hit countries such as Greece and Ireland, but is also expected to affect the borrowing costs for larger economies such as Italy and Spain. Governments were being forced to cut back on welfare and infrastructure spending as they adopt austerity measures to check their deficits. While the problem of high government debt is endemic to many developed economies, countries in the Euro Zone have been affected disproportionately due to the lack of flexibility to monetize their debt.

Several countries, in particular Greece, Ireland, and Portugal, spiraled into crisis as their governments were facing an imminent debt default in addition to their inability to raise more funds from the market. Although the European Union temporarily bailed them out from an embarrassing total default, in which some of the private investors were forced to write-off up to 50% of their investments, the political unrest that followed shows that troubles are far from over, as the negotiated austerity measures were not well-received by the public.[[43]](#endnote-43) Moreover, this temporary bailout does not solve the medium and long-term financial situation of the countries involved and they will definitely be forced to consider other alternatives.

As the recent downgrading of US credit rating by S&P and other rating agencies[[44]](#endnote-44) shows, it could only be a matter of time for such crises to hit other developed nations. As such, it is imperative that nations think beyond debt instruments to cover their budget deficits.

# **5. Practices in Islamic Countries**

While alternate models to finance government deficits are coming to the fore in some countries, it still remains to be seen if sizable ventures of a similar nature can be implemented in Islamic nations. A history of sovereign borrowing in the early years of Islam can be found in the paper ‘An Overview of Public Borrowing in Early Islamic History’ by Prof. M. N. Siddiqi.[[45]](#endnote-45)

Interest based borrowing and lending is regarded as impermissible by a majority of Muslim scholars. While some scholars have granted an exception to government debt, this is still not the accepted position of the majority. Most noticeably, Egyptian scholar Shaykh Muhammad Sayyid Tantawi declared that interest on government investments did not constitute *riba*.[[46]](#endnote-46) His position was rejected by a number of traditional religious scholars and others, who saw the ruling as a way to appease the then Mubarak government.[[47]](#endnote-47) Nevertheless, despite scholarly opposition to interest bearing bonds, governments in Muslim nations continue to use debt instruments as a quick way to balance budgets. The banking systems in these countries are just as dependent on sovereign bonds as it is in any other country.

*Sukuk,* which is widely known as ‘Islamic bonds’, is used as a source of funds for the financing of infrastructure by both the public and private sectors in Islamic capital markets. In theory, *sukuk* are meant to be securitized representations of undivided shares in an underlying asset or service. Although, it is argued[[48]](#endnote-48) that *sukuk* is different from conventional bonds, scholars have contested that the underlying structure of *sukuk* is nothing but a modified representation of conventional interest bearing bonds and it is compliant to *shari’ah* only in form but not in substance.[[49]](#endnote-49)

The *sukuk* market has grown over the years markedly with an aggregated *sukuk* issued between 1996 and September 2014 amounting to USD 632 billion. Following the slowdown of *sukuk* issuance after the global financial crisis, the market has picked up again with the outstanding amount reaching USD 100 billion as at the end of the third quarter of 2014.[[50]](#endnote-50) The successful experience of public and private *sukuk* issues signifies the potential of raising funds from private sector players and markets to finance infrastructure projects.

Greater proportion of the *sukuk* (66%) issued was by government. Funds mobilized through the *sukuk* for infrastructure projects are relatively meagre as Islamic financing institutions has not been forthcoming in financing the infrastructure sector. For example, according to S&P, only a paltry 10% of the total of USD 14.9 billion *sukuk* issued in 2008 was for infrastructure financing and this trend is observed in the GCC.[[51]](#endnote-51) A total *Shari’ah*-compatible financing in the GCC stood at USD 40 billion, and only USD 9 billion went into infrastructure financing.[[52]](#endnote-52) This is seen as a challenge to Islamic finance practice as the *sukuk* is seen by some as a veritable instrument in financing infrastructure and should be driving the effort in this direction. This stems from the fact that Islamic finance is not only about offering financial products that are *Shari’ah*-compliant from a technical-legal perspective, but beyond that, Islamic finance must fulfil its potential for managing a good economy, stimulating growth and development, establishing socio-economic justice and promoting employment and stability by adhering to the ethical principles and objectives of *Shari’ah*.

The positive experience of public and private *sukuk* issuances suggests the potential of raising funds from private sector players and markets to finance infrastructure projects. In acknowledging the magnitude of investments needed for infrastructure development around the world, G20 has recognized the role of project-based *sukuk* in partly filling the gap.[[53]](#endnote-53)

Some countries have had success in using *sukuk* to raise funds for developmental purposes in general and financing infrastructure in particular. In Sudan, the government has introduced Government Investment Certificates (GIC) to finance procurement, trade, and development projects.[[54]](#endnote-54) The Central Bank of Iran has issued participation bonds for, among others things, development of infrastructure projects.[[55]](#endnote-55) Retail *sukuk* can also be used to finance infrastructure projects. DanaInfra Nasional Berhad (company owned by the Malaysian Ministry of Finance) issued the DanaInfra Retail *Sukuk* to finance the extension of the capital city's Mass Rapid Transit (MRT) rail network and this is an example of how a retail *sukuk* can be used innovatively by the public authority. The company sold three tranches of *sukuk* of RM 1.6 billion, RM 300 million and RM400 million, with tenors of 7 to 20 years and was able to raise USD 789.14. The price was RM 100 per unit and requiring a minimum subscription of RM 1000, and the 7-year *sukuk* was paying a return of 4.23% per annum. Flexible channels of buying by investors was also provided, such as via online banking or automated teller machines (ATMs) of participating banks and financial institutions.[[56]](#endnote-56)

Another way Islamic banks can support community driven banking is by creating an opportunity for investors who have dual-goals of profit and social impact, to invest by structuring deals in this respect. Hybrid *suku*k is a very useful example in this regard. In a hybrid *sukuk* arrangement, for instance a *mudaraba sukuk*, a contract is issued to fit the purpose of the project in question. The basic framework required for the issuance of *mudaraba sukuk* is the establishment of a trust or its equivalent, such as a SPV, by the Islamic bank. Interested investors then make payments to buy *sukuk*, which provide them ownership in an underlining asset and this entitles them to a commensurate right to the income generated by that asset. The relationship between the SPV and the investors is a *mudaraba* partnership. The investors provide capital and the SPV is the manager.[[57]](#endnote-57) In this kind of arrangement, the *sukuk* holders are entitled to varying profit depending on the performance of the underlining asset of the *sukuk*. Therefore, the motivation for investing in this kind of asset would also extend beyond profit and the realm of profiteering, to that of social impact. This will provide an impactful infrastructure development tool for economic growth.

The market for infrastructure *sukuk* is dominated by issuances from Malaysia (61%), followed by Saudi Arabia (30%) and the UAE (7%) (ISRA).[[58]](#endnote-58)

# **6. A Look at Emerging Alternatives**

In the recent past, countries have started to adopt alternative models to finance projects in infrastructure, welfare and development. This is especially the case in the developing world where borrowing costs are high and governments have to spend massive resources to meeting bludgeoning demand for basic infrastructure as populations continue to grow and economic growth rates remain high. Public Private Partnership (PPPs henceforth) have become an extremely popular form of finance for infrastructure projects in countries such as India and other developing economies[[59]](#endnote-59) and it is expected that they will become more prominent in the near future. Tax incentives on the other hand are popular in developed countries that use such measures to drive investments into sectors like renewable energy. With necessary modifications, these alternatives can also be adopted to drive private participation into health care, education, sanitation, etc. while avoiding interest bearing debt instruments.

An important aspect in channeling private investments into public projects is the development of means to capture the benefit resulting from such undertakings. For example, it is easier to involve private players to develop highways, than to improve city infrastructure, since the use of highways can be more easily monitored and monetized as the benefits can be captured by imposing a suitable toll. It is more challenging to come up with mechanisms through which private investments can be directed towards city roads because it is more difficult to monitor their usage and to collect a fee from individual users. However with improvements in technology, such challenges can be overcome. For example, in the city of London, a high-tech automatic number plate recognition system is used to monitor the vehicles that enter and exit traffic areas in the city and drivers are charged according to their daily usage of the streets in the ‘Congestion Charge Zone’.[[60]](#endnote-60) This way, developments in monitoring technology and contract structuring can help increase the scope of private participation in public infrastructure and utility projects.

7. Public Private Participation

In general, project financing can be subdivided into three categories according to the degree of involvement of the public sector or the government. Some projects are financed completely through government funding while others are financed by the private sector. The third category of projects involves the participation of both public and private players and is becoming increasingly common. Also, we must distinguish between participation involving two aspects:

* Involvement in terms of financing the project, which can be through various routes such as equity, loans and other participating methods
* Involvement in terms of designing, constructing, operating and maintaining the project.

Keeping these aspects in mind, several possible alternatives to the funding and operation of infrastructure projects emerge. In this paper, we are mostly concerned with private sector participants financing as well as operating projects, which is a relatively new concept.[[61]](#endnote-61) One of the prerequisites for such infrastructure projects is that the state should provide a commitment to allow private players to enter and operate in fields that are normally considered to be exclusive in the public sphere. Governments and private players can negotiate a variety of contracts to establish the rights and responsibilities of the investors, who agree to fund a project, and develop and maintain it in return for the charges levied on the users for a certain duration of time. Governments may also agree to compensate these investors in case the fee collected fails to provide them with a reasonable rate of return on their investments.

A number of different types of pubic private contracts have emerged over time as the route has gained popularity in developing as well as developed countries. The simplest contracts are known as Build, Operate, and Transfer (BOT) contracts, in which the private investor agrees to build a project by generating the required funds and operates it for a fixed duration, which generally ranges between 20 to 30 years. After the end of the duration, the project is transferred to the government. In certain other contracts, such as BOO (Build, Own, and Operate) the private players may not have to transfer the project to the government.[[62]](#endnote-62) There are also contracts where the public body will retain ownership of the assets but will contract the maintenance and operations to a private player in return for fees.

PPPs have benefits other than providing ways to reduce the debt burden of governments. PPPs allow for private management of crucial infrastructure project, thereby limiting inefficiencies that can plague public sector monopolies.[[63]](#endnote-63) PPPs can also help governments expand infrastructure facilities rapidly by inviting private and foreign capital, which minimizes the impact of funding bottlenecks. PPPs also help in attracting the required management expertise and can help improve the performance of public sector monopolies. Cost savings and improved efficiencies can also be achieved through proper structuring of contracts. Developing countries such as India, Cameroon and Niger are pushing forward with private participation in infrastructure as a possible solution to the investment shortages in the country. The Indian government for example is inviting private participation in a number of sectors including roads, power, telecom, railways, ports, tourism, etc.[[64]](#endnote-64)

A shift towards private participation in infrastructure may however lead to some issues including cases of corruption and overcharging for necessary utilities such as water and electricity. PPP projects may also do no more than shift the debt load from the public domain to the private sector. The long payback period in infrastructure projects and government guarantees provide an incentive for private players to increase their return on investments by leveraging debt. For example, in India, 68% of the cost for an average PPP project was financed by debt while only 26% of the funding was met through equity and the rest by subordinated debt and government grants.[[65]](#endnote-65) Despite these disadvantages, if PPPs are designed and executed with certain safeguards, their usage can result in easing of the financial burden on the government and also result in higher quality of service and effective delivery of the service to end consumers and citizens.[[66]](#endnote-66)

8. Tax Incentives

Tax incentives are another possible mechanism that governments can use to direct private investments into specific sectors. This is especially suitable for education and health care services as governments can encourage the social responsibility initiatives of private firms to invest in rural programs. In the United States for example, the federal government has a program through which tax credits are offered to home-owners who invest in solar panels.[[67]](#endnote-67) Tax incentives are also offered to corporations that invest in renewable energy projects. Governments also offer tax breaks to fund research projects or scholarship programs.[[68]](#endnote-68) Programs to direct investments in renewable energy resources have been particularly successful.[[69]](#endnote-69) Tax incentives have also been used as an incentive to direct investments to risky sectors such as oil exploration.[[70]](#endnote-70)

Tax incentives can help governments to direct corporate activity into certain sectors such as research and development. Some industry voices also push for tax cuts to boost local employment so that companies are attracted to set up manufacturing plants in a given location.[[71]](#endnote-71) Tax incentives are seen as an important tool to contribute to economic welfare if used wisely.[[72]](#endnote-72) They can also help governments channel private investments into important sectors and thus avoid direct investments and spending in certain cases.

Despite certain advantages, the use of tax incentives suffer from certain disadvantages and have been seen as inferior to direct subsidies according to some research.[[73]](#endnote-73) Tax based incentives are less equitable as their benefit is skewed towards persons in the higher tax brackets. Targeted tax incentives, provided to specific entities also suffer from the problem of lack of equity.[[74]](#endnote-74) Regardless, from the perspective of reducing sovereign debt, tax incentives have been used successfully by governments to direct private investments to certain sectors.[[75]](#endnote-75) Without such options, governments would have to generate and direct public resources into preferential sectors, possibly resorting to debt and creating inefficiencies associated with public undertakings.[[76]](#endnote-76)

9. Routing CSR Activities

Governments can also route the corporate social responsibility activities of private players into much-needed infrastructure or developmental activities. In India, there are several companies that route their CSR funds to child education, providing sanitation facilities in rural areas, healthcare programs, and so on.[[77]](#endnote-77) If governments can properly incentivize such activities by enhanced tax deductions or mandate such initiatives depending on the need of particular areas, it could have a positive impact on society. CSR efforts have gained traction in recent years as the social role of businesses has been put under scrutiny. The interdependence between businesses and society forms the fundamental basis of viewing CSR as a vehicle for social welfare.

UNESCAP (The United Nations Economic and Social Commission for Asia and the Pacific) has highlighted four essential reasons for governments to promote CSRs as a part of their agenda.[[78]](#endnote-78) Firstly, CSRs have been found as effective tools in promoting sustainable and inclusive development. Another reason put forth by the study is the high degree of correlation between responsible competitiveness and overall growth competitiveness. Responsible competitiveness takes into account social, economic and environmental performance of businesses. Improving the responsible competitiveness of businesses by increasing their role in social welfare, is therefore a crucial tool to promote growth competitiveness. In addition to this, the study also highlights the present fiscal deficit crisis as another reason for governments to increase the role of CSR in their framework for social welfare. Further, UNESCAP also tasks the government with directing CSR activities that are largely social into broader strategic directions and promoting the practice by providing a conducive environment for businesses to take part in these efforts.

10. Other Funding Options for Covering Deficits

10.1 Auctioning of Scare Resources

Governments can generate funds through the auctioning of scarce resources. In these cases the government imposes a one time or repeat fee on the use of the exploitation of a scarce resource, for instance spectrum bandwidth used in mobile communications. Another such option available is auctioning rights to dig out mineral resources to private corporations. These auctions help governments monetize their assets and use the resources to develop infrastructure or engage in generic welfare activities.

10.2 Sovereign Disinvestments

Disinvestment of stakes held in public sector corporations is another route that governments can take to generate funds to finance its expenditures. Governments can dilute their stake in these corporations and use the money they generate in the process to reduce deficits. Disinvestments help reduce the inefficiencies that are endemic to public sector corporations and allow corporations tap into private capital markets to finance expansion.

# **11. Conclusion**

After analyzing the broad role played by debt in financing government activities, it seems imperative that alternatives to sovereign debt be discussed, evaluated and brought to practice. While interest bearing debt is abhorred in Islam, the sovereign debt crisis has also highlighted the need to look at these alternatives even in a secular framework. Our study throws light on some strategies and instruments that could be used as alternatives to finance government efforts to provide better infrastructure, promote social welfare and generate resources to finance other developmental activities.

This paper indicates that while instruments such as Public Private Partnerships (PPPs), tax incentives and Corporate Social Responsibility (CSR) practices exist, their use must be closely monitored to avoid pitfalls. PPPs are gaining popularity among developing countries to meet the growing demand for infrastructure. Tax incentives and CSR policies are vehicles to promote investment and activity in certain sectors and social welfare efforts. Governments can also reduce reliance on debt by the monetization of existing resources. A well balanced policy that can utilize all these instruments and social/financial initiatives can be developed to reduce dependency on public debt.

# **Exhibit 1**

Countries ranked according their sovereign debt as a percentage of their GDP

Source: The World Factbook, CIA, 2012

Country Comparison:**Public debt**

This entry records the cumulative total of all government borrowings less repayments that are denominated in a country's home currency. Public debt should not be confused with external debt, which reflects the foreign currency liabilities of both the private and public sector and must be financed out of foreign exchange earnings.

Authors’ note: The U.S. debt-GDP ratio according to Eurostat report is estimated at 102% for 2011, as compared to the CIA World Factbook, which estimates 69.40% for 2011. However, the CIA World Factbook does not include the state debt issued by individual U.S. states and intra-government debt (with amounts owed to the Medicare and Social Security funds, which is the largest portion of “intra-government” debt).

|  |  |  |  |
| --- | --- | --- | --- |
| **Rank** | **Country** | **% of GDP** | **Date** |
| 1 | [Zimbabwe](https://www.cia.gov/library/publications/the-world-factbook/geos/zi.html) | 230.8 | 2011 est. |
| 2 | [Japan](https://www.cia.gov/library/publications/the-world-factbook/geos/ja.html) | 208.2 | 2011 est. |
| 3 | [Saint Kitts and Nevis](https://www.cia.gov/library/publications/the-world-factbook/geos/sc.html) | 185 | 2009 est. |
| 4 | [Greece](https://www.cia.gov/library/publications/the-world-factbook/geos/gr.html) | 165.4 | 2011 est. |
| 5 | [Lebanon](https://www.cia.gov/library/publications/the-world-factbook/geos/le.html) | 137.1 | 2011 est. |
| 6 | [Iceland](https://www.cia.gov/library/publications/the-world-factbook/geos/ic.html) | 130.1 | 2011 est. |
| 7 | [Antigua and Barbuda](https://www.cia.gov/library/publications/the-world-factbook/geos/ac.html) | 130 | 2010 est. |
| 8 | [Jamaica](https://www.cia.gov/library/publications/the-world-factbook/geos/jm.html) | 126.5 | 2011 est. |
| 9 | [Italy](https://www.cia.gov/library/publications/the-world-factbook/geos/it.html) | 120.1 | 2011 est. |
| 10 | [Ireland](https://www.cia.gov/library/publications/the-world-factbook/geos/ei.html) | 109.2 | 2011 est. |
| 11 | [Barbados](https://www.cia.gov/library/publications/the-world-factbook/geos/bb.html) | 103.9 | 2011 est. |
| 12 | [Portugal](https://www.cia.gov/library/publications/the-world-factbook/geos/po.html) | 103.3 | 2011 est. |
| 13 | [Sudan](https://www.cia.gov/library/publications/the-world-factbook/geos/su.html) | 100.8 | 2011 est. |
| 14-20 | [Belgium; Singapore; Egypt; France; Belize; Canada; Germany](https://www.cia.gov/library/publications/the-world-factbook/geos/be.html) | (99.70) – (81.50) | 2011 est. |
| 21-40 | [United Kingdom; Bhutan; Sri Lanka; Dominica; Saint Lucia; Hungary; Bahrain; Israel; Austria; United States; Spain; Malta: Cyprus: Cote d’Ivoire; Morocco; Netherlands; Nicaragua; Jordan; Croatia; Mauritius](https://www.cia.gov/library/publications/the-world-factbook/geos/uk.html) | (79.50) – (60.20) | 2011 est. |
| 41-75 | [Albania; Malaysia; Guyana; Poland; Vietnam; Brazil: El Salvador; Switzerland; Tunisia; India; Philippines; Uruguay; Finland; Pakistan; Kenya; Norway; Denmark; Aruba; Seychelles; Colombia; Thailand; Slovenia; Ukraine; Latvia; Costa Rica; Slovakia; Bosnia and Herzegovina; United Arab Emirates; Mozambique; Argentina; Turkey; Ethiopia; Panama; Serbia; Montenegro](https://www.cia.gov/library/publications/the-world-factbook/geos/al.html) | (59.40) – (40.00) | 2011 est. |
| 76-111 | [Czech Republic; Ghana; Bolivia; Lithuania; Mexico; Yemen; Tanzania; Sweden; Malawi; Bangladesh; Dominican Republic; South Africa; Cuba; Taiwan: Syria; Romania; New Zealand; Senegal; Venezuela; Mali; Trinidad and Tobago; Australia; Honduras; Guatemala; Namibia; Zambia; Macedonia; Ecuador; Uganda; Indonesia; Angola; Korea, South; Papua New Guinea; Peru; Luxembourg; Botswana](https://www.cia.gov/library/publications/the-world-factbook/geos/ez.html) | (39.90) – (20.30) | 2011 est. |
| 112 | [Moldova](https://www.cia.gov/library/publications/the-world-factbook/geos/md.html) | 19.3 | 2011 est. |
| 113 | [Gabon](https://www.cia.gov/library/publications/the-world-factbook/geos/gb.html) | 18.3 | 2011 est. |
| 114 | [Nigeria](https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html) | 17.6 | 2011 est. |
| 115 | [Bulgaria](https://www.cia.gov/library/publications/the-world-factbook/geos/bu.html) | 17.5 | 2011 est. |
| 116 | [Paraguay](https://www.cia.gov/library/publications/the-world-factbook/geos/pa.html) | 17.4 | 2011 est. |
| 117 | [China](https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html) | 16.3 | 2011 est. |
| 118 | [Cameroon](https://www.cia.gov/library/publications/the-world-factbook/geos/cm.html) | 16.2 | 2011 est. |
| 119 | [Kazakhstan](https://www.cia.gov/library/publications/the-world-factbook/geos/kz.html) | 16 | 2011 est. |
| 120 | [Iran](https://www.cia.gov/library/publications/the-world-factbook/geos/ir.html) | 11.6 | 2010 est. |
| 121 | [Hong Kong](https://www.cia.gov/library/publications/the-world-factbook/geos/hk.html) | 10.1 | 2011 est. |
| 122 | [Saudi Arabia](https://www.cia.gov/library/publications/the-world-factbook/geos/sa.html) | 9.4 | 2011 est. |
| 123 | [Chile](https://www.cia.gov/library/publications/the-world-factbook/geos/ci.html) | 9.4 | 2011 est. |
| 124 | [Qatar](https://www.cia.gov/library/publications/the-world-factbook/geos/qa.html) | 8.9 | 2011 est. |
| 125 | [Russia](https://www.cia.gov/library/publications/the-world-factbook/geos/rs.html) | 8.7 | 2011 est. |
| 126 | [Uzbekistan](https://www.cia.gov/library/publications/the-world-factbook/geos/uz.html) | 7.7 | 2011 est. |
| 127 | [Gibraltar](https://www.cia.gov/library/publications/the-world-factbook/geos/gi.html) | 7.5 | 2008 est. |
| 128 | [Kuwait](https://www.cia.gov/library/publications/the-world-factbook/geos/ku.html) | 6.8 | 2011 est. |
| 129 | [Algeria](https://www.cia.gov/library/publications/the-world-factbook/geos/ag.html) | 6.6 | 2011 est. |
| 130 | [Estonia](https://www.cia.gov/library/publications/the-world-factbook/geos/en.html) | 5.8 | 2011 est. |
| 131 | [Wallis and Futuna](https://www.cia.gov/library/publications/the-world-factbook/geos/wf.html) | 5.6 | 2004 est. |
| 132 | [Equatorial Guinea](https://www.cia.gov/library/publications/the-world-factbook/geos/ek.html) | 5.5 | 2011 est. |
| 133 | [Libya](https://www.cia.gov/library/publications/the-world-factbook/geos/ly.html) | 4.7 | 2011 est. |
| 134 | [Azerbaijan](https://www.cia.gov/library/publications/the-world-factbook/geos/aj.html) | 4.7 | 2011 est. |
| 135 | [Oman](https://www.cia.gov/library/publications/the-world-factbook/geos/mu.html) | 3.8 | 2011 est. |

# **Exhibit 2**

Countries ranked according their budget surplus/deficit as a percentage of their GDP

Source: The World Factbook, CIA, 2012

Country Comparison: **Budget surplus (+) or deficit (-)**

This entry records the difference between national government revenues and expenditures, expressed as a percent of GDP. A positive (+) number indicates that revenues exceeded expenditures (a budget surplus), while a negative (-) number indicates the reverse (a budget deficit). Normalizing the data, by dividing the budget balance by GDP, enables easy comparisons across countries and indicates whether a national government saves or borrows money. Countries with high budget deficits (relative to their GDPs) generally have more difficulty raising funds to finance expenditures, than those with lower deficit.

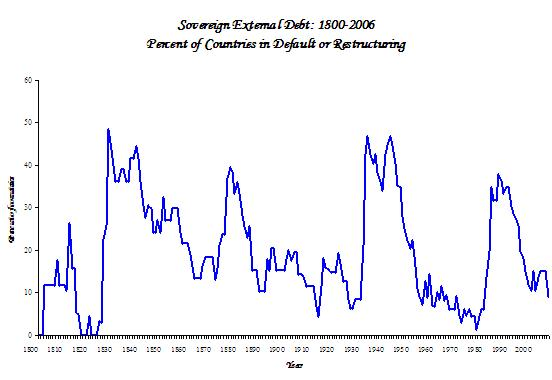
|  |  |  |  |
| --- | --- | --- | --- |
| **Rank** | **Country** | **% of GDP** | **Date** |
| 1 | [Macau](https://www.cia.gov/library/publications/the-world-factbook/geos/mc.html) | 30.3 | 2011 est. |
| 2 | [Kuwait](https://www.cia.gov/library/publications/the-world-factbook/geos/ku.html) | 20.5 | 2011 est. |
| 3 | [Iraq](https://www.cia.gov/library/publications/the-world-factbook/geos/iz.html) | 18.8 | 2011 est. |
| 4 | [Qatar](https://www.cia.gov/library/publications/the-world-factbook/geos/qa.html) | 17.8 | 2011 est. |
| 5 | [Saudi Arabia](https://www.cia.gov/library/publications/the-world-factbook/geos/sa.html) | 14.7 | 2011 est. |
| 6 | [Norway](https://www.cia.gov/library/publications/the-world-factbook/geos/no.html) | 13.5 | 2011 est. |
| 7 | [Palau](https://www.cia.gov/library/publications/the-world-factbook/geos/ps.html) | 9.3 | 2008 est. |
| 8 | [Iran](https://www.cia.gov/library/publications/the-world-factbook/geos/ir.html) | 8 | 2011 est. |
| 9 | [Saint Lucia](https://www.cia.gov/library/publications/the-world-factbook/geos/st.html) | 7.6 | 2010 est. |
| 10 | [Angola](https://www.cia.gov/library/publications/the-world-factbook/geos/ao.html) | 7.5 | 2011 est. |
| 11 | [Gabon](https://www.cia.gov/library/publications/the-world-factbook/geos/gb.html) | 7.5 | 2011 est. |
| 12 | [Dominica](https://www.cia.gov/library/publications/the-world-factbook/geos/do.html) | 7.4 | 2011 est. |
| 13 | [Micronesia, Federated States of](https://www.cia.gov/library/publications/the-world-factbook/geos/fm.html) | 5.6 | FY07 est. |
| 14 | [Mongolia](https://www.cia.gov/library/publications/the-world-factbook/geos/mg.html) | 5.4 | 2011 est. |
| 15 | [United Arab Emirates](https://www.cia.gov/library/publications/the-world-factbook/geos/ae.html) | 5 | 2011 est. |
| 16-44 | [Congo, Republic of the; French Polynesia; Solomon Islands; Brazil; Liechtenstein; Equatorial Guinea; Korea, South; Gibraltar; Hong Kong; Bolivia; Seychelles; Guernsey: Faroe Islands; Cook Islands; Switzerland; Vanuatu; Oman; Isle of Man; Sweden; Chile; Turkmenistan; Russia; Papua New Guinea; Singapore; Anguilla; Peru; Saint Kitts and Nevis; British Virgin Islands; Tonga](https://www.cia.gov/library/publications/the-world-factbook/geos/cf.html) | (4.60) – (0.00) | 2011 est. |
| 45-80 | Central African Republic; Uzbekistan; Korea, North; Jersey; Paraguay; Tajikistan; Nicaragua; Suriname; Liberia; Curacao; Madagascar; Luxembourg; Estonia; Indonesia; Belarus; Comoros; Mauritania; Bahrain; Cameroon; Gambia, The; Uruguay; Turkey; Fiji; Falkland Islands (Islas Malvinas); Germany; Finland; Kosovo; China; Monaco; Djibouti; Argentina; Ethiopia; Moldova; Greenland; Guinea-Bissau: Guinea | (-0.10) – (-5.00) | 2011 est. |
| 81-131 | [Algeria; Brunei; Kiribati; Philippines; Panama; Haiti; Kazakhstan; Malawi: New Caledonia; Rwanda; Mexico; Bahamas, The; Australia; Trinidad and Tobago; Poland; Guyana; Dominican Republic; Taiwan; Macedonia; Laos; Hungary; Togo; Thailand; Bulgaria; Israel; Bosnia and Herzegovina; Guatemala; Puerto Rico; Nigeria; Belize; Malta; Albania; Italy; Sudan; Austria; Colombia; El Salvador; Cuba; Netherlands; Denmark; Canada; Georgia; Bangladesh; Armenia; Honduras; Ukraine; Sao Tome and Principe; Mali; Belgium; Romania; Zambia](https://www.cia.gov/library/publications/the-world-factbook/geos/tp.html) | (-2.10) – (-4.20) | 2011 est. |
| 132 | World Average | -4.2 | 2011 est. |
| 133-179 | Benin; Mauritius; Czech Republic; Burma; Portugal; Serbia; San Marino; Vietnam; Tuvalu; Northern Marian Islands; Montenegro; Burkina Faso; Antigua and Barbuda; Bhutan; Slovakia; India; Costa Rica; Aruba; Slovenia; Croatia; Grenada; Jamaica; South Africa; Venezuela; Mozambique; Latvia; Ghana: Lithuania; Kenya; Ecuador; Barbados; Cote d’Ivoire; France; Morocco, Iceland; Botswana; Uganda; Kyrgyzstan; American Samoa; Tanzania; Cambodia; Spain; Senegal; Congo, Democratic Republic of the; Sri Lanka; Pakistan; Sierra Leone | (-4.30) – (7.00) | 2011 est. |
| 180 | [Cyprus](https://www.cia.gov/library/publications/the-world-factbook/geos/cy.html) | -7.4 | 2011 est. |
| 181 | [Syria](https://www.cia.gov/library/publications/the-world-factbook/geos/sy.html) | -7.5 | 2011 est. |
| 182 | [Cayman Islands](https://www.cia.gov/library/publications/the-world-factbook/geos/cj.html) | -7.6 | 2011 est. |
| 183 | [Niger](https://www.cia.gov/library/publications/the-world-factbook/geos/ng.html) | -7.7 | 2011 est. |
| 184 | [Nepal](https://www.cia.gov/library/publications/the-world-factbook/geos/np.html) | -7.7 | FY11 est. |
| 185 | [Malaysia](https://www.cia.gov/library/publications/the-world-factbook/geos/my.html) | -7.8 | 2011 est. |
| 186 | [New Zealand](https://www.cia.gov/library/publications/the-world-factbook/geos/nz.html) | -7.9 | 2011 est. |
| 187 | [Burundi](https://www.cia.gov/library/publications/the-world-factbook/geos/by.html) | -8.1 | 2011 est. |
| 188 | [Japan](https://www.cia.gov/library/publications/the-world-factbook/geos/ja.html) | -8.5 | 2011 est. |
| 189 | [Tunisia](https://www.cia.gov/library/publications/the-world-factbook/geos/ts.html) | -8.5 | 2011 est. |
| 190 | [United Kingdom](https://www.cia.gov/library/publications/the-world-factbook/geos/uk.html) | -8.8 | 2011 est. |
| 191 | [United States](https://www.cia.gov/library/publications/the-world-factbook/geos/us.html) | -8.9 | 2011 est. |
| 192 | [Yemen](https://www.cia.gov/library/publications/the-world-factbook/geos/ym.html) | -9.5 | 2011 est. |
| 193 | [Afghanistan](https://www.cia.gov/library/publications/the-world-factbook/geos/af.html) | -9.6 | 2011 est. |
| 194 | [Greece](https://www.cia.gov/library/publications/the-world-factbook/geos/gr.html) | -9.6 | 2011 est. |
| 195 | [Namibia](https://www.cia.gov/library/publications/the-world-factbook/geos/wa.html) | -9.7 | 2011 est. |
| 196 | [Lebanon](https://www.cia.gov/library/publications/the-world-factbook/geos/le.html) | -9.8 | 2011 est. |
| 197 | [Chad](https://www.cia.gov/library/publications/the-world-factbook/geos/cd.html) | -10 | 2011 est. |
| 198 | [Ireland](https://www.cia.gov/library/publications/the-world-factbook/geos/ei.html) | -10.1 | 2011 est. |
| 199 | [Jordan](https://www.cia.gov/library/publications/the-world-factbook/geos/jo.html) | -10.4 | 2011 est. |
| 200 | [Saint Vincent and the Grenadines](https://www.cia.gov/library/publications/the-world-factbook/geos/vc.html) | -10.6 | 2011 est. |
| 201 | [Egypt](https://www.cia.gov/library/publications/the-world-factbook/geos/eg.html) | -10.6 | 2011 est. |
| 202 | [Eritrea](https://www.cia.gov/library/publications/the-world-factbook/geos/er.html) | -11.3 | 2011 est. |
| 203 | [Swaziland](https://www.cia.gov/library/publications/the-world-factbook/geos/wz.html) | -12.6 | 2011 est. |
| 204 | [Cape Verde](https://www.cia.gov/library/publications/the-world-factbook/geos/cv.html) | -13 | 2011 est. |
| 205 | [Maldives](https://www.cia.gov/library/publications/the-world-factbook/geos/mv.html) | -13.4 | 2010 est. |
| 206 | [Lesotho](https://www.cia.gov/library/publications/the-world-factbook/geos/lt.html) | -13.7 | 2011 est. |
| 207 | [Timor-Leste](https://www.cia.gov/library/publications/the-world-factbook/geos/tt.html) | -14.3 | 2011 est. |
| 208 | [Samoa](https://www.cia.gov/library/publications/the-world-factbook/geos/ws.html) | -14.4 | 2011 est. |
| 209 | [West Bank](https://www.cia.gov/library/publications/the-world-factbook/geos/we.html) | -16.3 | 2011 est. |
| 210 | [Azerbaijan](https://www.cia.gov/library/publications/the-world-factbook/geos/aj.html) | -18.7 | 2011 est. |

# **Exhibit 3**

Sovereign External Debt: 1800-2006

Percent of Countries in Defaults or Restructuring

Source: Reinhart and Rogoff, 2008



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