DRAFT

How much Public Debt is too little?

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In a recent article,[2] this author had examined the recommendations of the Report of the FRBM (Fiscal Responsibility and Budget Management Act) Review Committee[3] through the prism of the debate contained in the Note of Dissent by Arvind Subramanian,[4] one of the members of the Committee (Annex – V of Vol. 1 of the Report), and the Rejoinder of the Committee to the Note of Dissent (Annex – VI). What was striking was that despite their differences on a number of important counts, both protagonists implicitly agreed that a secularly declining public debt to GDP ratio was unambiguously a good thing, and indeed recommended fiscal rules which led to precisely such an outcome.[5]

Intuitively, this view is seriously problematic, despite the fact that it is entirely in consonance with the established view of the economics profession. Almost the entire literature on this subject treats public debt as an unavoidable evil; sometimes, but rarely, condescending to consider it a "necessary" evil.[6] Virtually all the analytics, therefore, is on determining how much public debt is too much, beyond which it becomes a systemic threat to the economy.[7] The discomfort primarily stems from the fact that government debt is the only interest-yielding *risk-free* asset in any country,[8] and is therefore central to a wide range of key economic variables and decisions in a modern economy. Unless these aspects are explicitly taken into account while assessing the "optimal" level of public debt, the analysis would be seriously flawed, and indeed perhaps dangerous.

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[2] Ideas for India: http://www.ideasforindia.in/article.aspx?article=When-windmills-tilt-The-FRBM-debate

[3] Popularly known as the N.K. Singh Committee.

[4] Dr. Arvind Subramanian is the Chief Economic Adviser to the Ministry of Finance.

[5] The main justification for a steady reduction in public debt appears to be the views of international rating agencies. Why this should matter at all is not clear in view of the excessive foreign portfolio investments that India has received despite not too favourable ratings. In particular, the Chief Economic Adviser has publicly been critical of the rating agencies, and yet invokes their views to justify his position on this particular issue.

[6] Public debt is deemed "unavoidable" because that what government's, especially politicians, do. The "necessary" part is recognized only when there is a serious contractionary shock to the economy.

[7] The bulk of the extant work is on sustainability of public debt, which is a perfectly legitimate enquiry in view of the periodic debt crises that have gripped various countries over the years, mainly in Latin America but more recently in the PIGS (Portugal, Ireland, Greece and Spain). The very recent literature on "optimal" public debt is substantively no different although the term "optimal" gives the impression that some level of public debt can actually be good. In most part, the results are a revalidation of the "crowding out" hypothesis of yesteryears.

[8] Government securities of course do carry some market risk, in that changes in inflation can alter the real returns and that their prices can change according to demand-supply changes, but not default risk.

Of late there is some questioning about whether public debt levels are too low,[9] but these are context-specific and have arisen in the aftermath of the global financial crisis and the painfully slow recovery in many countries. The question being asked is whether higher public debt has therapeutic value in a situation where private balance-sheets are broken. This inquiry, on the other hand, is about the prophylactic role of public debt – about whether public debt lends a degree of stability to an economic system which cannot (or rather, should not) be arrogated to private debt.

The purpose of this paper, therefore, is to outline some of the considerations which should be taken into account while determining the desirable stock of public debt and of its flow counterpart – the fiscal deficit. The context is obviously India, but most of the conceptual elements have wider applicability.

Monetary considerations

In all modern economies, national currencies are backed by some form of sovereign debt. Central banks, such as the Reserve Bank of India (RBI), issue currency on the basis of their holdings of sovereign bonds and sometimes of gold. In an autarchy, therefore, the *minimum* level of public debt would be equal to the value of the national currency in circulation minus the value of gold held by the central bank. In India this would amount to roughly 14 per cent of GDP. In an open economy, however, this tight relationship between currency and minimum public debt can be loosened by the central bank holding sovereign assets of other countries – i.e. foreign exchange reserves.

As things stand, the rupee is backed almost entirely by foreign assets as per the RBI's balance sheet. This is of course an accounting fiction,[10] but it does give the rather unfortunate impression that India is on some form of the dollar standard.[11] Be that as it may, there is nothing intrinsically wrong in this, especially in a context where the balance of payments has by and large been in surplus for more than a decade, almost entirely due to surpluses in the capital account. For a country with a non-convertible currency, such as India, building up foreign exchange reserves is desirable both for precautionary purposes and for preventing an unwarranted appreciation of the rupee.[12] Nevertheless, the RBI always needs to hold a certain amount of central government debt instruments[13] in order to carry out its monetary

[9] See Bradford DeLong, http://www.bradford-delong.com/2015/07/needed-more-government-more-government-debt-less-worry-the-honest-broker-for-the-week-of-july-12-2015.html

[10] In reality, roughly 30% of RBI's assets are in central government bonds; the remaining 70% in foreign assets. However, the Issue Department (which is in charge of currency) is shown as having only foreign assets, and the entire holding of domestic public debt is shown to be with the Banking Department (which also holds about 40% of its assets in foreign reserves).

[11] Shades of a "banana republic"?

[12] The downside is that the *seignorage*, which should accrue to the Indian government, ends up with foreign governments.

[13] State government bonds cannot serve this purpose since they are not sovereign.

management responsibilities in a credible manner.[14] There is no hard and fast rule governing how much public debt a central bank should carry in its books; but as a rule of thumb, if the currency is not convertible, then the more open the country is to foreign portfolio flows, the higher should be the quantum.[15] At present the RBI holds 15 per cent of the stock of central government securities, which is 10 per cent of all government securities. This does not seem excessive for the roles that RBI has to perform.

More importantly, prudence requires that consideration should be given to situations where the balance of payments is not in surplus or is inadequate. The liquidity needs of the domestic economy cannot be held hostage to the availability of foreign exchange at any given point of time. One way to address this issue is to ensure that the flow of domestic sovereign debt (which is essentially the size of the fiscal deficit of the Central government) is at least as large as the value of additional currency required by the domestic economy for its growth needs. In the Indian context, if it is assumed that the desired growth rate of nominal GDP is around 11.5 per cent per annum,[16] then a simple-minded application of Fisher's equation[17] yields a minimum Central government fiscal deficit of 1.6 per cent per annum, provided that the ratio of currency held by the public to total currency in circulation remains roughly constant.[18]

Alternatively, the RBI can buy foreign exchange and/or central government bonds of the requisite value from the market. If it buys foreign exchange, then necessarily the rupee will depreciate steadily, which will impart unnecessary inflationary pressure on the economy which may, completely incorrectly, be attributed to excessive monetary expansion, thereby leading to a reversal of the policy.

On the other hand, buying government bonds through open market operations is superficially more attractive in that it will lead to a decrease in the yield on government bonds, and thereby to a reduction in the over-all interest rate structure. This would be music to the ears of the very vocal "investor community", but its systemic effect can be very damaging, although in an insidious way, which is the substance of the next sections.

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[14] One of the more important roles of central bank holdings of public debt is the sterilization of foreign capital inflows in excess of the amount needed for the desired growth of money supply. India has faced this issue on a number of occasions.

[15] Although the Impossible Trinity need not be invoked, central bank holding of public debt becomes necessary for managing the money supply and/or the exchange rate.

[16] This is the base scenario of the FRBM Committee, and essentially translates to a desired growth rate of 7.5% in real GDP plus a target inflation rate of 4%.

[17] Fisher's equation is an identity which relates money supply with nominal GDP. The common version of this equation, known as the Cambridge equation, is: $M.V = P.y$, where: M = money supply; V = velocity of circulation of money; P = price level; and y = real GDP.

[18] This assumption is important in view of the fact that the present government has clearly indicated its desire to reduce this ratio significantly. This is one of the main components of the recent demonetization narrative. If it happens, then the minimum central fiscal deficit requirement on this account will also go down. However, present trends suggest that this ratio is well on its way to returning to its pre-demonetisation level.

Fiduciary considerations

In any country, a large part of household wealth is held for precautionary purposes and for meeting post-work-life consumption needs. For such investments, the return is less important than the security of the principal. By and large, countries with low risk thresholds and with poor or non-existent social security systems, such as India, will tend to place much more importance on and have a higher share of such assets in the total household financial wealth.[19] Consequently, most developing countries necessarily have to be more conscious of this characteristic than developed countries.

All countries recognise this imperative and impose fiduciary status on institutions offering specific forms of assets.[20] The common forms are life insurance, pension/provident funds, and certain types of mutual funds and asset management company products.[21] In India, there is an additional asset class called small savings instruments for which the government itself is the fiduciary, i.e. bears 100 per cent of the liability.[22] This amounts to about 11.5 percentage points in the total public debt stock of 68 per cent of GDP.

The other assets which bear fiduciary protection comprise another 25 per cent of GDP.[23] The laws governing these assets, which take into account the fiduciary commitment, specify that ***at least*** 50 per cent of the value must be invested in government securities, i.e. in public debt instruments, which includes both central and state securities.[24] It is important to note that the fiduciary requirement is in terms of the face, or redemption, value of the government securities and not "marked to market".[25] Therefore, just for compliance with the law, the stock of public debt must be a minimum of around 12.5 per cent of GDP on this count alone.

Such legally-mandated fiduciary assets though form a relatively small part of the financial sector in any country. The elephant in the room is the commercial banking

[19] Physical assets such as real estate and gold are usually preferred when there is insufficient trust in the financial system. This has been the case in India for a long time, and its consequence has been a much lower level of savings available for productive purposes than would be the case otherwise. Building public trust in the financial sector must, therefore, form a key component of the government's development strategy and the assurance given by public debt instruments may play an important role in this.

[20] A fiduciary is defined as: "a person to whom property or power is entrusted for the benefit of another". A fiduciary is required to act in the best interest of the client, and protection of the principal is a central objective.

[21] Any fund or product which guarantees the principal falls into this category.

[22] This class also includes the Provident Funds of government employees.

[23] This number may seem very large, but it should be remembered that most of these assets are held for long periods, perhaps around 30 years, which means that the annual pay-out/redemption liability is only about 0.75% GDP.

[24] Whether the 50% requirement is adequate for securing the fiduciary obligation is a question beyond the scope of this article. However, any such rule has to draw a balance between security and a minimum acceptable level of returns.

[25] This is in fact conceptually the correct position since protection of the principal cannot be left to the vagaries of market forces.

sector. As things stand, the settled law in most countries, including India, is that banks are not fiduciaries, except for a few very specific transactions. The law views the relationship between a bank and its depositors as a debtor-creditor relationship, which technically leaves the banks free to pursue an unrestrained profit maximisation strategy, without any specific concern for the security of their depositors' funds. While this may be the legal position, the perception of the depositors is usually quite different, and they tend to view bank deposits as a form of low-yield *secure* assets.[26] In fact, many fiduciary institutions, such as trusts, specifically require their funds to be kept as bank deposits. Therefore, even if banks do not have legal fiduciary status, they certainly bear a moral fiduciary responsibility.

Most governments recognise this tension between the legal and the moral/perceptual status of banks, and seek to address it through "prudential regulations". The more liberal forms of such regulations require that a specified proportion of a bank's liability must be held in the 'safest', or highest rated, securities, whether public or private. In the U.S.A., for instance, private AAA rated securities were eligible to play this role; and we all know how that panned out.[27] It is not yet clear whether the appropriate lessons have been drawn from the global crisis, especially on the distinction between "risk-free" and "*almost* risk-free".[28]

In India, prudential regulations of commercial banks stipulate that a minimum percentage of the total net liabilities of banks (called the statutory liquidity ratio (SLR)) must be held in truly risk-free assets, namely government bonds. This requirement has varied from time to time from a high of 25 per cent to the present level of 20 per cent. However, the experience has been that banks tend to hold a significantly higher proportion of their assets in government bonds than mandated by the regulation,[29] which prompted a former Deputy Governor of the RBI to famously remark that this was a case of "lazy banking".[30] Perhaps it could actually be the case that Indian bankers have a better sense of their moral responsibility than the regulator.

Nevertheless, there is constant clamour, again from the "investor community" (but not so much from bankers), for further pruning of the SLR to make space for their products. There is no established theory as to what the appropriate level of the SLR should be, but if we consider the protection afforded only to household deposits at

[26] Perhaps the banking sector should be legally charged with misbranding their products as current, savings and fixed ***deposits***. The term "deposit" in common reading means something to be preserved and returned when due.

[27] The infamous collateralized debt obligations (CDOs), which triggered the global financial crisis of 2008, were by and large rated as AAA. And even after this we continue to take the pronouncements of rating agencies seriously.

[28] It would be interesting to examine whether the impact of the global financial crisis was systematically related to the proportion of government bonds held by the banking sectors of countries.

[29] SLR holdings of banks have been as high as 32%, and are presently at about 24%.

[30] There is also a view that the SLR is a form of coercion by the government to force banks to hold public debt instruments. The fact that banks voluntarily hold more than the stipulated minimum gives lie to this view.

the 20 per cent SLR, it comes to about 30 per cent, which is significantly lower than the 50 per cent mandated for fiduciary institutions.[31] This does not sound unreasonable by any means. Whatever be the case, the present 20 per cent SLR requires the Indian banking sector to hold 18 per cent of GDP in government bonds.[32]

Therefore, if we add up the minimum amount of public debt required ***by law*** to meet fiduciary responsibilities in India, it comes to ***42 per cent of GDP***; comprising of 11.5 per cent for small savings instruments, 12.5 per cent for insurance/provident funds/ et.al., and 18 per cent for commercial banks. This may seem significantly lower than the current public debt stock of 68 per cent of GDP; but the question that needs to be asked is: whether the remaining 26 per cent of GDP of public debt is entirely superfluous and can safely be done away with?

The distribution of this "excessive" public debt is:

(a) External debt of Central government[33] – 3 per cent
(b) Reserve funds and other deposits of Centre and states[34] – 6 per cent
(c) RBI holdings of central government bonds – 5 per cent
(d) Excess SLR holding of banks – 3.5 per cent
(e) Excess holdings of insurance/PF etc: - 2.5 per cent
(f) Holdings of corporates, etc.[35] – 6 per cent

The first two items, namely the external debt and the reserve funds, which together are 9 per cent of GDP, may not be essential in any manner and could possibly be dispensed with if the fiscal deficit is to be reduced.[36] The other four components, however, require more careful consideration.

Interest rate considerations

The interest rate is one of the most important economic variables in any economy. The level and term structure of interest rates are central to a number of important decisions taken by a wide range of economic agents. Savings and investment decisions are the most obvious, but interest rates also determine the choice of technology by firms, in terms of the optimal proportion of capital and labour that

[31] If we believe that corporate deposits with banks do not deserve fiduciary protection, and that such protection should only be given to household deposits, then the proportion of 'deserving' bank deposits is about 67% of the total.
[32] Unfortunately, the RBI of late has been treating the SLR purely as an instrument of liquidity management rather than a means of fiduciary protection. This needs to be seriously debated and a view taken at the highest political level.
[33] The Central government's external debt is entirely concessional loans from multilateral institutions and some bilateral donors. There is no reason why it cannot be dispensed with, except for its lower cost.
[34] This includes the Market Stabilisation Scheme (MSS) bonds, which are the price the government pays for building up foreign exchange reserves. It is also a part of the much-maligned excess SLR holdings of the banks.
[35] This includes holdings of government bonds by foreign portfolio investors (FPIs)
[36] These forms of debt may be presumed to be 'supply' driven rather demand-driven.

should be used in the production process. Less obviously, they play an important role in influencing the production structure of the economy.[37]

One of the most important roles played by sovereign debt instruments in any economy is to provide the anchor for all interest rates, since they are the only financial instrument with zero default risk. Theoretically, the interest rate on private debt of a particular maturity should be the interest rate on government bonds of the same maturity with a premium reflecting the default risk of the private borrower.[38] For it to effectively play this role, however, the government bonds must be freely and actively traded so that their yield (which is the effective interest rate) accurately reflects the market risk and liquidity premia.[39] It is, therefore, necessary that an active market should exist for government bonds.

Any market requires market participants who transact on the market *voluntarily* in terms of their own portfolio requirements. It also requires a 'market maker' who has the ability to take positions on either side of the market – i.e. as both a buyer and a seller. The third requirement for an efficient market is that it must have depth, in that the number of participants and the volumes are large enough to lead to efficient price discovery and to prevent undue volatility.

The market for government bonds in India is essentially a whole-sale one, with no retail participation at all. The participants are banks, other financial institutions, foreign portfolio investors (FPI)[40] and some non-financial corporates. As far as the volume is concerned, although the total stock of government bonds is substantial at nearly 48 per cent of GDP, the volume "in float" is a much smaller 17 per cent. The reason for this is that the statutory holdings by banks and other fiduciary institutions simply cannot be placed on the market. Thus the market is limited to the excess holdings of these institutions ((d) and (e)), the holdings of non-fiduciary bodies (f) and the holdings of RBI (c). Nevertheless, at present both the range of participants and the float are large enough for a reasonably efficient market.

The market maker, to all intents and purposes, is the RBI. However, the RBI's functioning in the market is different from that of standard private market makers in that its objective is not to maximise profits from arbitrage and trading fees, but to attain specific macroeconomic policy objectives. The key policy objective is of course the level of the interest rate. In order to carry out its mandate, therefore, the RBI necessarily has to have a target interest rate around which it can work.

[37] In principle, a relatively high interest rate encourages the growth of labour-intensive sectors vis-à-vis capital-intensive ones.

[38] Under the assumption that the interest rate on the government bond fully captures the market risk premium (inflation risk and interest-rate risk) and the liquidity premium for that particular maturity. The default risk, on the other hand, for any single private entity can vary with the maturity.

[39] The market risk and liquidity premium is the difference between the yield and the coupon rate.

[40] In India, these are also known as Foreign Institutional Investors (FIIs).

Most central banks have a base value of the real interest rate which is publicly stated, and monetary management is essentially about deviations from this base value depending upon cyclical factors. In India, the RBI has not articulated what it considers to be the desirable level of the real interest rate during normal times for more than a decade now. Unfortunately, neither has the government of late.

Conceptually, the minimum (i.e. risk-free) real interest rate in an economy should be at or around what is termed as the "social rate of time preference", which is a measure of the value a society places on consumption at present relative to consumption in the future. Typically, poor countries will have a significantly higher rate of time-preference than richer ones. In India, the social rate of discount (which is the nominal counterpart of the rate of time preference) used to be fixed by the Planning Commission.[41] This figure stood at 12.5 per cent for nearly 25 years beginning from the Fifth Five Year Plan to the Ninth.[42] Subsequently it was reduced to 9.5 per cent from the Tenth Plan onwards to reflect the increase in incomes, the surge in the savings rate and the reduction in anticipated inflation.[43] As things stand, NITI Aayog has given no indication of what this figure could be.[44]

One way to get around this problem is to assume that the coupon rate on treasury bills reflects the Finance Ministry's take on the social discount rate.[45] At present, the coupon rate on 10-year treasury bills is 7 per cent. Assuming that the target inflation rate is 4 per cent,[46] this yields an implicit time preference rate of 3 per cent. The question is whether this figure is appropriate? This should be seen in the context of the fact that most developed countries with much higher current income and consumption levels have real interest rate targets ranging between 1.5 to 2.5 per cent. Surely, for a poor country like India, the rate should be higher. Objectively, nothing dramatic has happened since the Twelfth Plan, and therefore the rate should be at or above 4 per cent.

In order to judge whether the voluntary holdings of government securities are too high, the actual market-determined yield should be compared to the social discount rate. If the yields are higher, it implies that there is an excess of government securities in the market, which can be reduced without any material damage to the economy. If, on the other hand, the yields are lower, it means that there is an excess demand for government bonds, and any reduction in their supply will lower

[41] The social discount rate can be thought of as the social rate of time preference plus the expected rate of inflation. This rate is used as the discount rate for all social cost-benefit analysis and for appraisal of public investment. Private investment decisions of course are based on the market interest rate.

[42] This figure comprised of a time preference rate of 6.5% and an inflation rate of 6%.

[43] The time preference rate was reduced to 4.5% and the inflation rate to 5%.

[44] The National Institution for Transforming India (NITI) Aayog is the successor to the Planning Commission, which was shut down in 2014.

[45] Usually coupon rates are set as close as possible to the expected yield in order to minimise auction volatility. However, there is no indication of the considerations that have gone into Finance Ministry's choice of the coupon rate. It is suspected that the main consideration has been to hold down the interest burden on government and not to attain an interest rate level appropriate for the country.

[46] This is assumed on the basis of the mandate given to the RBI for inflation targeting.

interest rates even further, thereby raising the level of systemic risk in the economy and distorting the various decisions that are contingent on the interest rate.[47]

At present, the yields on 10-year treasury bills are marginally below the coupon rate of 7 per cent, and significantly lower than the preferred level of above 8 per cent.[48] However one views it, therefore, the voluntary holdings of public debt amounting to 12 per cent of GDP are by no means excessive, and may even be too low. But one needs to be a little careful in making such an assessment, since these holdings of public debt include the holdings of FPIs.

In the framework that has been sketched out, a key assumption is that the social rate of time preference in India is significantly higher than that which prevails in the capital-surplus countries from which portfolio investments originate. If this is indeed the case, then the equilibrium value of the yield no longer reflects only the portfolio needs of domestic agents, but also the interest rate arbitrage being carried out by investors from countries which have much lower real returns to capital. At present, FPI holding of Indian government bonds is restricted to 5 per cent of the stock of such bonds, which translates to a holding of just above 2 per cent of GDP. This represents 20 per cent of the demand for the floating stock. If these are taken out of the picture, on the perfectly legitimate ground that they should not be considered as a part of the minimum public debt stock required by the country, the yield will certainly rise. But the extent is not obvious since the higher yield will attract more demand from domestic investors.

This kind of uncertainty is worrisome when the desired interest rate in a country is substantially different from that prevailing in the global financial market. Consider a situation where there is no restriction on FPI holdings of domestic public debt instruments. If the market is reasonably efficient, then the yield will tend to become equal to the yield on similar instruments in developed countries adjusted by the difference in expected inflation rates.[49] In other words, the Indian yield could be forced down to around 5.5 per cent as compared even to the 7 per cent coupon rate.

Such a situation would be disastrous on a number of counts. First, the earnings of fiduciary institutions, including banks, from the legally mandated assets would go down sharply, thereby jeopardising their financial viability. In such a situation, they would be forced to invest their other funds in higher yielding, i.e. more risky, assets, which would increase the systemic risk in the economy.

Second, since the over-all level of interest rates would be much lower, it would tend to reduce domestic savings and increase investments. All else remaining constant, this would lead to a sharp increase in the current account deficit (CAD), thereby

[47] The "investor community" and the rating agencies will of course welcome both the reduction in public debt and the lowering of the interest rate, but is this the constituency that the government should be catering to?
[48] It should be noted that this interest rate is on long-term central government bonds. The yields on shorter tenor instruments can, and should, be lower because of lower liquidity premia.
[49] This is referred to as covered interest parity, which has worked very efficiently among developed countries.

increasing the external vulnerability of the country. It should be noted that the exchange rate may not depreciate to correct this imbalance since the portfolio flows may more than off-set the CAD. Any sudden withdrawal of FPI funds could then trigger a crisis.

Third, the lower interest rates would encourage the adoption of more capital-intensive technologies across all sectors and boost the growth of capital-intensive sectors relative to the more labour-intensive ones. Both these will have serious adverse effect on the growth rate of employment, which is particularly a concern at this time when the country is trying to cope with its much-vaunted "demographic dividend".

The most sensible way to prevent such undesirable outcomes would be to simply disallow FPI investment in government securities.[50] This will let the yield on government securities to accurately reflect the domestic demand-supply position and provide the information necessary to determine the optimal level of public debt.

Minimum public debt

Coming back to the main inquiry, even if it is assumed that the withdrawal of the FPI holdings of public debt instruments is only partially compensated by a rise in domestic voluntary holdings, it will reduce the total voluntary holdings by about 2 per cent of GDP to 11 per cent. If this figure of voluntary holdings of public debt is added to the mandated holdings, the minimum public debt stock becomes 53 per cent of GDP.

Finally, this leaves us with RBI's own holdings of public debt instruments. As mentioned earlier, the RBI holds 15 per cent of the stock of central government securities, which is 5 per cent of GDP. This needs to be held for RBI to credibly perform its monetary management role. This then takes the minimum stock of government debt required at present to at least 58 per cent of GDP.

However, this is only the current position (as of 2016-17). The minimum debt ratio will almost certainly change over time depending upon developments in the economy. Therefore, before any fiscal rule is adopted, there must be some understanding as to how the minimum debt ratio is expected to evolve in the future. As has been argued above, the minimum public debt ratio is based essentially on two considerations: (a) meeting fiduciary responsibilities; and (b) maintaining the risk-free interest rate at a policy-driven target level.[51] The factors that go into determining the movements in these two considerations are different and need to be considered separately.

[50] FPI in private bonds can be freely permitted without this danger. It may drive down the spreads over the risk-free rate, but that in itself is not a problem.

[51] The monetary consideration is also important, especially for countries which do not have sufficient foreign assets to back their currencies. In India, however, this can be subsumed under the interest-rate consideration.

Consider first the fiduciary requirements. These are broadly influenced by two factors. The first is the non-government savings rate and the second is the distribution of these savings between different asset classes. Both of these are inextricably linked to the growth rate and to the size and class distribution of income in the country, and how these are expected to behave in the future.

In a stylised sense, poorer people and poorer countries, especially in the absence of social security, may be assumed to display greater risk aversion. This would imply that a larger proportion of their savings would be invested in risk-free instruments, i.e. those which bear fiduciary protection.[52] With growth, if the income distribution does not deteriorate significantly, the share of such relatively safe assets should rise faster than GDP. Faster the growth, the more rapid should be the rise in this ratio. The distribution between financial and physical assets is less predictable, but as financial deepening progresses, it is expected that a progressively larger share will go into financial instruments.

If, on the other hand, income distribution worsens, a larger share of the income will be in the hands of those with higher risk appetite, which could lead to a reduction in the share of risk-free assets. This will almost certainly be true at low growth rates, but at higher growth rates, the outcome is indeterminate since there will be two conflicting influences.

The future market need for government bonds in float is even harder to predict since it depends upon perceptions of risk by a wide range of market participants. This will change over time both cyclically and secularly. However, as it appears, the present position does not seem too far removed from what is desirable, both from the demand side and from the RBI's stock of government bonds. In the medium run, therefore, it may be assumed that the current 17 per cent of GDP floating stock should be appropriate, with a mild upward bias.

In India, since 2004, the growth rate has been high but there has been distinct worsening of income distribution. On this basis, it is difficult to predict the direction of the future movement in the minimum public debt ratio. However, in view of the government's push towards greater 'financial inclusion' in the form of bank deposits and insurance coverage, it is likely that this ratio will trend upwards in the foreseeable future. Therefore, a certain amount of cushion needs to be provided over and above the necessary minimum in order to provide for contingencies. Seen in this light, the FRBM Committee's recommendation of a target public debt ratio of 60 per cent seems eminently sensible not as a ceiling, but as a *floor*.

Fiscal deficits and the composition of public debt

However, the stock of public debt is only one part of the story. Consideration must also be given to its flow counterpart, namely the fiscal deficit, which is the annual

[52] And of course in property and gold.

rate of generation of public debt. There is little point in having a desired level of public debt to GDP ratio if the addition to this stock is not consistent with maintaining the ratio over time. This is where the FRBM Committee went wrong. Having determined the desired level of the public debt ratio at 60 per cent, it recommended a fiscal rule which would restrict the fresh inflow to 4.5 per cent per year. As Subramanian correctly pointed out in his dissent note, consistency demanded that the fiscal deficit should have been specified as 6.2 per cent per annum in order to stabilise the public debt ratio at the desired level.[53]

In its defence, the Committee has stated that the 60 per cent public debt ratio is in fact a *ceiling*, and it can fall below that over time. This position of course squares the circle since then there is no lower limit to which the ratio can be allowed to fall.[54] However, if 60 per cent is the *floor*, as has been argued above, then the problem resurfaces, since any consolidated fiscal deficit below 6.2 per cent could lead to breaching the floor.[55] On the other hand, if nominal GDP continues to grow at 11.5 per cent per year as assumed by the Committee, a 6.2 per cent fiscal deficit limit will lead to the public debt ratio converging to the 60 per cent floor in 15 years and continuing to be maintained thereafter. This does not seem such a bad outcome, unless there are other, and as yet unstated, reasons for wanting to reduce the fiscal deficit by a larger magnitude.[56]

It may, however, be argued that while the fiduciary requirements are guided by legal provisions, the floating stock requirement is a subjective assessment. An alternative formulation of the fiscal deficit requirement can then be considered. Since the fiduciary obligation is assessed at 44 per cent of GDP, the steady-state requirement for the fiscal deficit ratio works out to be marginally higher than 4.5 per cent of GDP just to meet this requirement. To this must be added the volume of central government bonds that the RBI will need to meet the currency growth required by the economy.[57] As has been assessed earlier, this figure comes to 1.6 per cent of GDP, which then yields a total required fiscal deficit ratio of above 6.1 per cent. Literally, it's six of one and half-a-dozen of the other.

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[53] This figure is derived from the standard equation that relates the steady-state value of the public debt ratio (d) with a constant fiscal deficit to GDP ratio (fd) and a constant steady-state nominal growth rate of GDP (g):

$$fd = d.[g/(1+g)]$$

If d is 60% and g is assumed to be 11.5%, then fd works out to 6.2%.

[54] As it happens, if the consolidated fiscal deficit is pegged at 4.5% of GDP per year, the public debt ratio will fall to 41% of GDP in 15 years under very reasonable assumptions.

[55] For instance, a 4.5% fiscal deficit will lead to the debt ratio going below 60% in just 5 years if growth remains at 11.5%.

[56] A 6.2% target consolidated fiscal deficit requires no fiscal correction at all since the present levels of deficit are 3.5% for the centre and 2.7% for states. The demand for reducing the consolidated fiscal deficit further is almost always justified by appealing to global norms, but nobody seems to ask the question of whether the global norm is optimal in any sense. The argument that something should be done because everybody else is doing it is very dubious logic at best.

[57] The additional debt generated by the 4.5% fiscal deficit ratio cannot be used for money creation since they will be held by the fiduciary institutions and not the RBI.

Things are unfortunately not quite as simple as that. The steady-state relationship between the fiscal deficit and the debt stock ratio assumes that the nature and composition of the debt holdings does not matter. However, the fact of the matter is that it does, and any analysis which ignores this is seriously flawed. A basic distinction has to be drawn between debt instruments that are tradable (namely government securities) and those that are not (all non-securitised public debt instruments such as provident funds, external borrowings, other deposits and the like). It is the former which determine the market yields and thereby the interest rate structure of the economy, while the latter has no direct role to play.[58]

As things stand, of the total public debt of 68 per cent of GDP, tradable instruments account for 47.5 percentage points and the non-tradable account for the remaining 20.5.[59] In comparison, as has been assessed, of the minimum public debt of 60 per cent of GDP, the tradable component should be 48 percentage points and the non-tradable 12.[60] Given these proportions, it is entirely possible to have a public debt ratio above the minimum and yet run the risk of systemic disruption. It is clear, for instance, that the supply of government securities is already below its optimal level.[61] Although this is not an immediate problem, since the gap is small and the RBI has sufficient stock of government bonds, it should not be allowed to persist.

More importantly, this compositional inconsistency has an important implication for financing of the current fiscal deficits: *government securities must account for **at least** 5 per cent of GDP in the total financing of the consolidated fiscal deficit for the immediate future.* Unless this condition is met, the gap between the actual and desired stock of government securities will continue to widen to a point where fiduciary institutions will be under stress both from being unable to meet their legal requirements and from reduced income flows from their holdings of public debt instruments.

At first glance, this may not seem to be a particularly demanding requirement considering that in recent years the issue of government securities has been somewhat less than 4.5 per cent of GDP. But it does require a change in the manner of thinking about the financing of fiscal deficits. At present, the issue of government securities is a residual after taking into account the receipts from the non-tradable forms of debt and the target fiscal deficit. Given the compositional

[58] These will of course have an indirect role through a general equilibrium effect.

[59] The break-up of the present stock is:

Tradable: Banks – 21.5%; Insurance, etc: - 15%; RBI – 5%; Corporates, FPI, etc: - 6%

Non-tradable: Small savings, Provident fund, etc: - 11.5; External debt – 3%; Reserve funds and deposits – 6%.

[60] The break-up of the minimum stock is:

Tradable: Banks – 22%; Insurance, etc: - 15.5%; RBI – 5%; Corporates – 5.5%

Non-tradable: Small savings, PF, etc: - 12%.

It may be noted that this assumes that FPI holdings of public debt securities is not permitted.

[61] This may be one of the reasons why in the last year, the yield on T-bills has dropped by 60 basis points and the rupee has appreciated.

problem, however, this has to change, and the annual issue of government securities has to be a target in itself.

This creates an entirely new fiscal dilemma. Since, by definition:

Fiscal deficit = non-tradable debt receipts + receipts from securities

the government's ability to meet both a fiscal deficit target and a target on minimum issue of government securities depends entirely upon its ability to control the non-tradable component.

The non-traded forms of public debt can be categorised into 4 broad sub-components: (a) external debt (3%); (b) reserve funds and other deposits (6%); (c) provident fund of government employees (5%); and (d) small savings deposits of the public (6.5%). Of these, (c) and (d) are determined by the portfolio decisions of savers, and the government has little direct control except by way of changes in the applicable interest rates.

There has been substantial downward revision in these interest rates over the last twenty years – around 400 basis points over the period.[62] As a consequence, the growth of small savings has been somewhat slower than the growth rate of GDP leading to a gradual decrease in its share. The provident funds of government employees, however, have shown a sharp increase in recent years. This has been driven mainly by the shift from a defined-benefit pension system for government employees to a defined-contribution system since 2004.[63] There is no reason to believe that this pattern will change dramatically even if the interest rates are reduced further to say 7 per cent in keeping with the T-bill rate. But these rates are politically extremely sensitive and difficult to change.

External debt used to be extremely important at one time as a valuable source of foreign exchange, but its importance has waned over the years as private capital flows surged. More importantly, it has dropped steadily as a proportion of GDP for the last one-and-a-half decades and is now a mere 3 per cent. In any case, currently the annual inflow as a percentage of GDP is in the second place of decimal and can be ignored. Over the longer run, repayments will probably become larger than the fresh additions and the stock will gradually reduce.[64]

The category "reserves and other deposits" has been rising, but it is not clear how much control the government can exercise over its future movement since it comprises of a number of different forms of liabilities.

[62] The movement in these interest rates has mirrored the changes that took place in the social discount rate with the rate on long-term instruments dropping from 12% in the mid-1990s to 8% at present.

[63] Large increases in government salaries in 2006 and again in 2016 also contributed to this increase.

[64] The process, however, will be excruciatingly slow since these loans have very long tenors, usually around 30 years, which means that the annual reduction in the debt ratio will be only about 0.15 percentage points on this account.

On the whole, therefore, there is considerable uncertainty about the government's ability to control the non-tradable component of debt receipts. In such a situation, there is always the possibility that a choice may have to be made about whether the fiscal deficit target should be maintained or the target for issuance of government securities. In any event, the government needs to carefully track the evolution of the minimum stock of government securities and then to take hard-headed decisions about how it can be managed. This is not currently a practice that is followed by the Ministry of Finance.

Pressures and policy choices

The central message of this paper is that the public debt stock and the fiscal deficit have dimensions which go beyond, and are perhaps more important than, the mere financing of government's expenditure. This is hardly an original thought: most professional macroeconomists and public finance experts have always recognised this. But, in recent years, it appears to have been drowned out by the fiscal policy wisdom purveyed by international finance capital and its hand-maidens – the rating agencies. The deluge has been going on for long enough that most policy-makers, including economic technocrats in government, have come to believe that public debt, fiscal deficits and interest rates are objectives in themselves rather than instrumentalities that they actually are. As a result, the current discourse on fiscal management completely ignores these dimensions.

The core of this now dominant narrative is that rapid growth can only take place through high levels of private investment; and higher levels of public debt, fiscal deficit and interest rates all retard private investment in specific ways. This may indeed be true under certain, perhaps even most, circumstances, but rational policy-making demands the alternative objectives must also be evaluated before any decision is taken. The findings of this paper suggest that India may be at an inflexion point where trade-offs need to be carefully considered before decisions are taken.

Take, first, the fiscal deficit ratio. It is commonly used as an indicator of "crowding out" of private investment, and thereby retarding growth, due to government profligacy. India has been consistently projected as an outlier on this count and penalised through a lower rating than justified by other performance criteria. The simple fact of the matter is that while this is an important consideration for determining debt sustainability, it is an inappropriate metric for assessing the degree of crowding out. The correct metric in fact is the fiscal deficit as a percentage of *non-government* savings. On this metric, India no longer appears as an outlier.[65] The decision on whether the fiscal deficit ratio needs to be reduced, therefore, should be

[65] India has one of the highest savings rates in the world, barring China, and also happens to have negative government savings. Consequently, the non-government savings rate in India is above 30% of GDP, which means that the government absorbs about 20% of these savings through its 6.2% fiscal deficit ratio. This is roughly at par with comparator countries.

based on other, and more fundamental, considerations such as debt sustainability or meeting the need for government bonds.[66]

The public debt stock presents a more complex challenge. On one hand, as has been assessed, some slack exists even at present, but a relatively rapid reduction of this slack runs into the problem caused by the compositional requirement of public debt. On the other hand, both the compositional issue as well as the minimum public debt stock requirement can be addressed by a stroke of the pen – simply reduce the SLR and/or broaden its scope to include private debt instruments.[67] These measures require no legislative action or even approval of the government. The RBI, as the regulator, is perfectly competent to take these decisions on its own.[68] Given the ease of taking such a step, this may well be the next arena in the battle for minds between the interests of international finance capital and of low risk-threshold domestic savers. It should be clearly recognised that in effect it represents a trade-off between a supposedly rapid, but high-risk, growth strategy and a stable, sustainable growth path.

The interest rate argument will attract even greater adverse pressure since both finance capital and large domestic corporates will array themselves against it. Unfortunately, this is an unequal battle. While the gains from a lower interest rate to these entities are obvious and immediate, the drawbacks are diffused and macroeconomic in nature. As a result, there is likely to be little countervailing pressure. However, it should be made amply clear that the social discount rate, and hence the yield on central government securities, is a *political* decision and not a technical one. In taking such a decision, the government and the RBI must ask themselves one fundamental question: *are we really a capital-surplus, low poverty developed country?* If the answer is no, then three other questions follow:

- Do we wish to disincentivise domestic savings?
- Do we wish to promote labour-displacing technologies?
- Do we wish to disadvantage labour-intensive sectors?

Providing answers to these questions is the responsibility of the academic community and technocrats within the government. One can only hope that they shall stand up to be counted.

[66] This is of course apart from the most fundamental consideration of all – management of aggregate demand in the economy.

[67] Every one percentage point reduction in the SLR, or allowing one percentage point of SLR to be held in private securities, reduces the minimum public debt stock by 0.9% of GDP and the necessary fiscal deficit ratio by 0.1% of GDP.

[68] Something similar can be done by reducing the ratio of public securities required to be held by fiduciary institutions. This would, however, require legislative action and therefore much greater scrutiny and resistance.