

Toward a top-down fiscal rule

Charles Wyplosz
Graduate Institute of International and Development Studies and CEPR
February 2021

Abstract: Most existing fiscal rules have, at best, a tenuous link to the principle of solvency. Unsurprisingly, they lead to poor results when followed or they are not followed at all. The reason is that solvency is not a practical concept, so it must be interpreted. This paper shows how sustainability can be defined as a practical interpretation of solvency. It proposes a ‘top-down’ rule that seeks to achieve sustainability not by binding the government with black-box calculations but by requiring that it makes transparent decisions on all aspects of the debt dynamics. The government adopts debt targets and then chooses future primary budget balances consistent with the targets and its own explicit assumptions on future interest and growth rates. One debt target is set for the end of the legislature and is binding. Another debt target is set for a few decades ahead; it cannot be binding but it justifies the shorter-term target.

1. Introduction

More than a decade ago, Leeper (2010, p.361) observed that “monetary policy decisions tend to be based on systematic analysis of alternative policy choices and their associated macroeconomic impacts: this is science. Fiscal policy choices, in contrast, spring from unsystematic speculation, grounded more in politics than economics: this is alchemy.” Sadly, this still remains the case. Meanwhile, in many developed countries, public debts have been rising, often reaching postwar levels. This has led many developed countries to adopt fiscal rules, which often fall in the alchemy category.

Indeed, most existing fiscal rules are not based on existing theories and they are imposed on governments that do not want to be bound. Unsurprisingly, they generally fail for a number of reasons. One obvious reason is that it is very difficult to restrain democratic governments; this requires dedicated legislation that cannot be circumvented or even overturned. Another

reason is that most rules are quantitative, relying on numbers that are inherently arbitrary. The well-known Euro Area limits on public debts (60% of GDP) and budget deficits (3% of GDP) are an example of quantitative goals that cannot be justified under prevailing circumstances. Yet another reason is that the merits of fiscal rules are not easily grasped by public opinions, allowing governments to flout them without political implications. In fact, the concept of fiscal discipline, which justifies rules, is quite complex to define.

This paper argues that rules that are imposed on governments should be replaced by rules that are chosen by governments. The top-down idea is that the principle of the rule is a legal obligation but the precise commitment that it entails is chosen by the government. A newly appointed government is required to announce the debt that it aims to reach by the end of its mandate and the associated budget balances. This choice, however, must be carefully, precisely and transparently justified. To that effect, an independent fiscal policy committee presents the newly appointed government with a range of possible choices that meet the definition of debt sustainability, each option being explicitly linked to clear assumptions. The government chooses the assumptions before settling on the policy choice.

When outcomes differ from the assumption, the government can and must reset its policy. This flexibility is essential because one cannot expect any government to stick with pre-announced policies which are at odd with the facts as they unfold. Actually, it would be a policy mistake not to adapt to changing circumstances. This should not be, however, a license to escape previous commitments. The presumption must be that the chosen end-of-term debt remains unchanged, so by-gones are not by-gones. In the presence of a major shock – the Covid pandemic comes to mind – the end-of-term debt should be changed, but under strict conditions demonstrably consistent with fiscal sustainability.

The next section starts from solvency, an uncontroversial theoretical construct, to sustainability, a practical concept that binds the range of fiscal policy options.¹ Section 3 describes the top-down proposal and the associated procedures. Section 4 explains why many popular rules are misguided because they are at best sufficient conditions for solvency and sustainability (however defined), or even unrelated to these conditions. The last section briefly concludes.

2. Defining and interpreting debt sustainability

2.1. From solvency to sustainability²

As an accounting identity, the intertemporal budget balance constraint is assumption-free. It describes the evolution of the public debt to GDP ratio B_t as a function of a small number of variables: the primary budget deficit ratio D_t , the real interest rate r_t and the GDP growth rate g_t , and the starting debt position B_0 :

$$B_t = \prod_{q=0}^{t-1} (1 + r_q - g_q) B_0 + \sum_{q=1}^{t-1} \prod_{u=q+1}^{t-1} (1 + r_u - g_u) D_q \quad (1)$$

The formal fiscal solvency condition is:

¹ Sustainability is deeply related to ‘fiscal space’, as defined in Wyplosz (2020), which formalizes the analysis presented in this paper.

² In this section, “debt” is the net debt of the general government.

$$\lim_{t \rightarrow \infty} \frac{B_t}{\prod_{q=0}^{t-1} (1+r_q-g_q)} \leq 0. \quad (2)$$

In plain words, a government is solvent when its existing debt is guaranteed by a sufficient string of primary surpluses such that it does not reach “the end of times” with a significant debt.³ Solvency is thus defined formally and precisely, but it is not usable in practice.

Indeed, any implementation of the solvency condition faces two impossible challenges. First, the condition looks at infinity, the end of times. Doing so matches the notion that governments (and the nations that they serve) are here forever. Whether this is true or not – history does not suggest that this is a valid assumption – no one can pretend to be able to look at the end of times. Second, it is not just the debt ratio that must be foreseen, but also the interest and growth rates.

Debt sustainability is meant to be the practical substitute for government solvency, as explained in Debrun et al. (2019). This requires taking several steps, each of which breaks the tight logic of the solvency condition. These steps, however, must be carefully chosen so as not to dilute the original logic. In particular, any fiscal rule, must be directly related to sustainability. Otherwise, it is arbitrary and unlikely to be efficient and acceptable to citizens. Section 4 gives a few examples of fiscal rules that do not relate to any precise statement of sustainability.

The first step is to choose a finite horizon. The longer is the horizon T , the closer we are to the proper definition of solvency but also further from reality. On the other hand, choosing a short horizon forces any adjustment required to establish sustainability on an unjustifiably short period of time.⁴

To make matters worse, there is no finite-horizon solvency condition. Calling for $\frac{B_T}{\prod_{q=0}^{T-1} (1+r_q-g_q)} = 0$, hence $B_T = 0$, is unjustified both because any debt ratio achieved at date T can be paid for thereafter and because a zero debt at time T is compatible with a violation of the solvency condition thereafter.

The second step is therefore to specify a debt ratio B_T that is not ‘too big’, which is bound to be totally arbitrary (the New Zealand rule calls for a ‘prudent’ debt ratio). As any arbitrary constraint, it must be chosen by the government. This is the top-down characteristic of the present proposal.

The third step is to determine whether current and future primary deficits, interest rates and growth rates makes it possible to reach the chosen debt ratio at the chosen horizon. Here we face uncertainty. A natural procedure is to use forecasts of these variables to determine whether the debt is sustainable. Unfortunately, the record of economic forecasting is rather poor, especially as the horizon lengthens. It is particularly worrisome that small changes in the interest and growth rates quickly cumulate into large effects on the evolution of the debt ratio. Debt sustainability analysis, as this exercise is called, is therefore highly imprecise,

³ Ruling out a negative debt by the end of time, the solvency condition reduces to an equality. Note that $\lim_{t \rightarrow \infty} B_t = 0$ is a sufficient, but not a necessary condition.

⁴ For an illustration of the importance of the horizon, see Wyplosz (2020).

unless the horizon is very short, in which case the logic of the solvency condition is lost (Wyplosz, 2011).

2.2. Target and instrument

Any properly constructed policy rule ought to identify a target and the instrument(s) to be used to achieve the target. Too often, misguided rules fail to clearly establish this distinction.⁵

A useful reference is monetary policy. For well over two decades, central banks have refined their strategies to clarify their targets (usually the inflation rate, with financial stability and full employment as secondary objectives), the relevant horizon (typically two to three years) and their instruments (the short-term interest rate).⁶ The logic is that they can effectively control the interest rate, at least the short-term interest rate, and that present and future interest rates eventually and indirectly affect inflation. Applying this logic to fiscal policy stands to deliver effective fiscal rules.

The sustainability condition calls for the debt ratio to remain “not too big” at the chosen horizon. Before explaining how “not too big” and the horizon ought to be assessed, it is essential to recognize that the fiscal rule must identify the debt ratio as the target, simply because that is the only concept that is directly related to the relevant theory.

Then, the intertemporal budget constraint (1) shows that annual budget balances, current and future directly drive the evolution of the debt. This is why annual budget balances should be seen as the policy instrument. Importantly, the instrument is the whole path of present and future primary budget balances all the way up to the chosen horizon. The downside is that governments do not control precisely their budget balances, which are affected by the economic situation.

2.3. Uncertainty

Beyond the budget balance, the evolution of the debt ratio is also affected by the interest rate and the growth rate. This and the fact that budget balances are not perfectly controlled imply that debt sustainability is subject to significant uncertainty. Debrun et al. (2019) describe various approaches that attempt to deal with uncertainty. All of them, however, suffer from the fact that the level of uncertainty grows fast with the length of the horizon, which should be as distant as possible. The trade-off between uncertainty and the horizon length argues in favor of short horizons, which undermines the very logic of sustainability, or leads to ignoring uncertainty altogether, which means that debt targeting amounts to shooting at an invisible objective. This trade-off is one reason why few rules so far have adopted the debt ratio as the policy objective.

Much effort has been dedicated to deal with uncertainty in the design of fiscal rules and, more generally, when assessing debt sustainability. The general thrust is to describe as best as possible the range of possible outcomes and to evaluate their probability (Debrun et al, 2020;

⁵ This is the Tinbergen rule, which does not consider uncertainty. The present proposal circumvents the issue of uncertainty by adopting the top-down procedure.

⁶ In many economies, following the Great Financial Crisis of 2008, central banks have driven their instrument, the policy interest rate to its effective lower bound (close to zero, sometimes even below zero). At that stage, they have introduced new, non-standard tools, such as increasing the size of their balance sheets and acting on long-term interest rates. This issue does not concern fiscal policy as should become clear.

Kopits, 2016). This is a significant step forward, with two main drawbacks. First, the probabilities are based on past experience, with no guarantee that it is relevant over the (long-run) future. The global financial meltdown and the Covid pandemic have been the largest causes of debt increases and yet, by the time they occurred, data used to describe ‘the past’ did not include similar precedents. The increasingly sophisticated probabilistic treatment of uncertainty may obfuscate risk evaluation. The second drawback is that this approach creates a black-box effect. Policymakers are presented with analyses of the potential shortcomings of which they are not equipped to evaluate. The result is opacity at both the policymaker and public opinion levels. When the evaluations fail to capture major events, policymakers lose faith in their technicians and the trust of public opinions in their policymakers suffers.

Uncertainty must be put at the center of the rule in a clear and transparent way. Decision-making under uncertainty starts with laying out the choice set, which is the object of the next section. It consists in establishing a choice criterion and in identifying which variables can be manipulated to satisfy the criterion, which is the target and instrument framework laid out in Section 2.2. Then the decision is made according to the characteristics of the decision-maker (risk aversion, regret, etc.) who bears the risks. Thus, governments should be the ones who make the decision after being presented with the choice set. The rule should not be a set of imposed decisions, it should be a procedure designed to limit the choice set to sustainable paths.

2.4. Infinity of paths

Given assumptions about the interest and growth rates, there exists an infinity of debt paths that can achieve a debt target at a given horizon and each target can be hit by an infinity of budget balance paths. Many rules specify a particular path for the budget balance – the European Stability and Growth Pact is a good example – thus closing the double infinity of alternative options for no other reason than ‘this is the rule’.

This bottom-up approach is counterproductive. It rules out possibly superior paths. It boxes governments in actions that they may find unappealing for valid economic and political reasons. It therefore encourages evasion from the rule. And, finally, when the hidden assumptions that lie behind the rule are found to be wanting, it degrades the logic of the rule and, indeed, of any rule-based restraint. A good rule, instead, should recognize the existence of an infinity of choices and allow the policymakers to pick their preferred solution at each point in time.

2.5. The horizon

As indicated earlier, the horizon at which the debt target is set should be as long as possible. Once uncertainty is dealt with as described above, the trade-off between horizon and forecast precision mentioned in Section 2.3, it becomes technically possible to aim at the very long run, even at an infinite horizon. However, setting the instrument – the whole path of budget balances until the horizon – implies committing current and future governments. In a way, this makes sense. Fiscal solvency can only be achieved if all current and future governments behave properly. One government’s discipline is futile if its successors will act recklessly. On the other hand, no government can commit its successors.

The proposed solution involves two different components. The first one is a commitment to a debt target to be reached by the end of the legislature. As time passes by, the room for maneuver – the possible budget paths – shrinks. In the best of worlds, this should act as an

incentive to do the hard work early on, leaving some flexibility at the end. In a less favorable world, it may lead to systematically missing the target. The relevant question is how to build incentives to get closer to the best world into the fiscal rule, an issue considered in Section 3.5.

The second component consists in adopting a debt target for the very long run, say 30 or 50 years, or even infinity. Given assumptions about the interest and growth rates, an incoming government can then choose a path of budget balances that includes the path chosen for the years of its legislature. This choice is not a commitment but a reference that future governments will have to face. While free to diverge from the long-run debt target and the budget balance path over its own legislature, a new government will have to position its own choice relative to the inherited reference. Such an exercise should have significant pedagogical value and could nurture an informed political debate.

2.6. What is “not too big”?

Finally, the choice of the debt target might seem the most difficult of all. Theoretical work on the optimal size of public debts (e.g. Barro, 1979, Aiyagari and McGrattan, 1998, or Collard et al., 2020) does not yield any clear indication on what could be an optimal debt level. It suggests that inherited debt matters as to where it is desirable to go, so that the debt target should not be universal and set once for all.

This leaves considerable room for formulating the debt target. A few possibilities may be mentioned:

- When the debt ratio is low, some increase is possible
- When the debt ratio is moderate, keeping where it is.
- When the debt ratio is considered high, the target should be on a long-run declining trend.

Of course, low, moderate or high is a value judgment. Because the purpose is to avoid slipping into a bad equilibrium where financial markets may start imposing high risk premia, or just stop lending, the country’s financial reputation – which market ratings imperfectly measure – is a criterion. In addition, the ability/willingness of the central bank to provide a backstop is another important criterion. In the end, there is no magic number. The debt target is an essential policy decision that ought to be made explicitly and publicly by the government.

3. The top-down proposal⁷

Building on the previous theoretical considerations, a blueprint of the top-down proposal is now described.

3.1. Procedure

Upon taking office, the government announces a target for the debt ratio for the end of its legislature, to be voted upon by the Parliament. Included in this decision is an associated path of budget balances, which is the policy instrument. The assumptions (interest and growth rates) that underlie the computations are also made public. The debt target is therefore

⁷ The correct debt concept is the net debt and a number of countries have developed estimates of their net public debts, others not. This is an important issue but it involves a host of considerations that go beyond the scope of this paper, which ignores the distinction.

conditional on these assumptions. When the assumptions must be changed because they appear to be contradicted by the actual course of events, the government is required to submit to its parliament a modified path of budget balances that aim at the debt ratio target.

The incoming government must also declare whether it accepts the long-run debt target set by the previous government. It may make an alternative decision, which must be made public alongside a budget balance path and the underlying assumptions.

3.2. Fiscal policy committee and parliamentary advisory board

The procedure implies that the government chooses the target, the instrument and the assumptions. Adopting benign assumptions is an obvious temptation. The rule must therefore include adequate incentives to avoid decisions that are unrealistic. These incentives can be provided by two technical bodies.

An independent fiscal policy committee is tasked with presenting the government with consistent options on the target, the instrument and the assumptions. These options are made public. The government can ask the Committee to produce as many options as it wishes. The Committee is not entitled to advise one particular option, only to lay out options, leaving the government to choose and own a particular option. Over time, the Committee verifies outcomes on a continuous basis. When the outcomes depart from the decision, the Committee prepares revised options and the government has to choose from these options at the earliest possible convenience.

The independent fiscal policy committee must be separate from the Finance Ministry. A good example is the UK's Office for Budget Responsibility which has taken over the task of budget forecasting from the Treasury (Wren-Lewis, 2011); another example is the Dutch CPB). Yet another possibility is the example of New-Zealand where the Treasury is independent from the government (New Zealand Treasury, 2015). The Committee must have adequate resources to perform all of its functions without relying on the treasury.

Similarly, the parliament must be equipped with its own advisory board to support representatives when they debate the government proposals. An example is the US Congressional Budget Office.

3.3. Horizon

As explained above, the planning horizon should be long, decades rather than years, but governments cannot bind their successors. A compromise could be as follows.

A newly elected government adopt a debt target for the end of its term, along with the budget path and assumptions. Once adopted by the parliament, this debt target becomes mandatory. At the same time, the Committee produces a simulation of the debt path that extends to 30 or 50 years, based on the same assumptions, assuming that the budget balance reached in the last year of the government's term will remain unchanged over the long horizon. This simulation is made public.

While the long-term simulation cannot be binding, it serves two important purposes. First, it indicates whether the government decision leads to a sustainable path. If it does not, the rule can stipulate that the decision is not acceptable. Alternatively, the government must justify its

choice. Second, it serves as a message for future governments to consider when they decide on their targets, instruments and assumptions.

3.4. Uncertainty

It can be objected that all these numbers are subject to a significant amount of uncertainty, which starts with the assumptions about the interest and growth rates. The proposed top-down approach works around the problem by having the government own the assumptions, which implies that it takes responsibility for the uncertainty. After all, the uncertainty is unavoidable and technicians cannot reduce it.

In contrast with the frequent practice whereby the political authorities make decisions on the basis of forecasts produced at the technical level, the top-down approach requires them to jointly choose the debt target, the budget balance path and the necessary assumptions. The policymakers are invited to own the assumptions, instead of opaquely accepting those of their technicians in the shadow of often-unspecified computations.

Making explicit all relevant assumptions carries several advantages. It alerts the authorities to the unavoidable uncertainty that they face and to the need of regularly resetting the instrument. It replaces the black box of seemingly complex forecasting exercises performed by technical staff in the shadow of their models, sometimes under hidden political pressure. This stands to improve the public debate and to raise accountability. Instead of attempting to divine what the models say, the debate can focus squarely on the assumptions and the chosen target and instrument, knowing full well that assumptions are just that and will have to be changed when proven wrong. This systematic updating of the instrument is not a failure of the fiscal rule. Quite to the contrary, it is the way of implementing the rule. Uncertainty occupies from seat rather than being a hidden nuisance.

The approach also stands to set the incentives right. Optimistic assumptions will lead the government to tighten fiscal policy, possibly at an inconvenient time. Pessimistic assumptions will give the governments to choose between increasing room for fiscal policy actions or to achieve a better outcome than its target.

3.5. Changing the target

As the pandemic has shown, unexpected adverse shocks can make the end-of-term debt target instantly obsolete. In such cases, sticking to the pre-shock target stands to be seriously counter-productive. This is why unexpected adverse shocks call for escape clauses in rules. It is equally well-known that escape clauses can be misused to undermine rules.⁸

With very long horizons, it is easy to deal with such shocks, since a few years of large budget deficits leave a small imprint on the overall path and can be easily offset given enough time. A possibility, therefore is for an escape clause to allow raising the end-of-term debt target while keeping the long target unchanged. In that case, it implies a new post-shock path of budget balances. Two familiar issues arise, however.

First, the post-shock path cannot bind future governments so that electing a new government is an easy way to escape the rule. Second, the set of events that trigger the escape clause cannot encompass all possibilities, which can lead to frequently invoking the clause. Keeping

⁸ Auerbach (2008) provides vivid examples of this process in the case of the US.

the long-term target unchanged, however, reduces the risk.⁹ This suggests that the long-run debt target can play a crucial anchoring role.

The next question, therefore, is how binding the long-run debt target should be and how could it be changed. Given the impossibility for the incumbent government to bind future governments, far into the future, this would call for inscribing the long-run debt target in the Constitution. Even ignoring the fact that a Constitution can be changed, a serious difficulty is that, as time passes by, so does the long-term date. Eventually, therefore, it would make sense to be able to adjust the long-run debt target.

There is no magic bullet. A good rule must allow the end-of-term debt target to be changed in exceptional circumstances, which is harmless as long-term target cannot be changed and yet should be adjusted as time passes by. This is the key weakness of the top-down rule and, most likely, of any fiscal rule. Solutions can be tried, but none will be 100% foolproof. Box 1 provides an example.

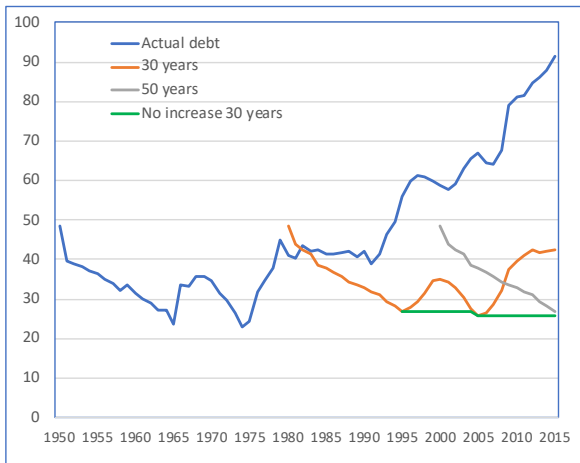
Box 1. How debt targets can be changed

The end-of-term target should only be changed in the event of “exceptional circumstances”. Listing, or merely defining, all exceptional circumstances is hopeless. In the spirit of the top-down approach, that politicians must take responsibility for all decisions, the decision of declaring an exceptional circumstance could be devolved to the parliament, maybe requiring more than a majority of votes. However, the incumbent government and its opposition face opposite incentives, as noted above, even though the conflict is lessened when the horizon of the long-term debt target lies far away.

It is therefore crucial to codify how to change the long-term debt target as years pass by. A possibility is to define sustainability by requiring the debt process be stationary, i.e. that the debt ratio does not increase in the long run. Figure 1 shows how the following rule would have been applied over the last decades: the debt target to be reached at the end of the planning horizon cannot exceed the debt ratio observed on average over the last five years. The figure documents the relentless increase of public indebtedness among the advanced countries of the G20. It then shows how the long-term target would have moved year after year according to this rule in two cases: when the planning horizon is either 30 or 50 years, starting in 1980 and 2000, respectively. Given past history, the targets are mostly declining over time but the increase after 1991 will imply a sharply rising target (starting in 2021 with the 30-year rule and in 2041 with the 50-year rule). Another possibility is that the rule specifies that the debt target is defined as above with the proviso that it can never be increased. This also shown in Figure 1 in the case of 30-year rule. These are merely examples.

Figure 1. Debt of the G20 developed member countries (% of GDP) (1950-2015)

⁹ This has the effect of pitting the incumbent and future governments against each other. Political calculus considerations are important in this case but left out the discussion.



Source: IMF Historical Public Debt Database

3.6. The $r - g$ issue

Blanchard (2019) has revived the old question of the impact of the relative positions of the interest rate (r) and growth rate (g) on the dynamics of the debt. When $r < g$ the accumulation process implied by the budget means that the debt ratio tends to decline spontaneously. Yet, it is not declining under every circumstance. In particular, large and rising budget deficits can offset the tendency. The possibility that $r < g$ does not in any way lessen the need for a rule. Indeed, historically, $r < g$ has often occurred in the past but this has not prevented the continuous increase in the debt ratio exhibited in Figure 1.

Importantly, the procedure described in this paper is fully compatible with the situation when $r < g$. It lessens the tightness of the rule while indicating limits for the budget balance instrument. Furthermore, the experience is that interest rates can quickly rise, reversing the dynamics of the debt and occasionally triggering a market run with dramatic consequences. Even if the probability of a catastrophic event is low, keeping a high debt ratio in good times (when $r < g$) amounts to significant risk taking.

4. Misleading targets

Given the daunting difficulties of approximating the solvency condition with a sustainability condition that can be used to establish a fiscal rule, it is not surprising that most existing rules do not relate to the intertemporal budget constraint and its solvency condition. The downside is that the corresponding fiscal rules are theoretically unjustified and practically arbitrary and opaque. Here are a few prominent examples.

4.1. Annual budget ceilings in the US

Every year, the US Congress sets a ceiling for the next fiscal year's debt, in nominal value. As the economy grows, either because real GDP rises or because inflation is positive, usually both, the nominal debt tends to rise. Most years, Congress must authorize an increase of the ceiling, which occasionally opens up an opportunity for political maneuvering that leads to the disruptive shutting down of government spending. Eventually, the ceiling is raised, and the debt ratio increases. Several reforms have been attempted, as recalled by Auerbach (2008), but only to be ignored when the rule became binding. This is a clear illustration of the

fact that sustainability is a long-term concept that is not captured by annual constraints, which inevitably conflict with economic and political logic.

4.2. Balanced budget in US States

All but one of the 50 US States mandate that their budget be balanced every year. This rule is a sufficient condition for solvency but it is far from necessary. In fact, it is extremely stringent. Most state rules have some built-in flexibility, but quite limited, so state-level fiscal policy is regularly crippled. Fortunately, in these cases, the federal budget usually provides the required support.

4.3. Medium-term quantitative objectives in the Euro Area

The Stability and Growth Pact requires that the nominal budget deficit not exceed 3% of GDP and that the debt level be less than 60% in any year. At best, this can be interpreted as the choice of a one-year horizon with arbitrary and fixed numerical objectives unrelated to the preexisting debt ratio. Practically, since the start, the pact has been violated nearly every year by one or more countries, and by nearly all countries in some years, which has led to numerous revisions. These revisions did not intend to modify the rule as stated, but to complement it with more rules. The pact now also looks at the structural budget balance to account for the current economic situation. It has lengthened a bit the horizon to the “medium run”, defined as three years and eventually extended to five years. It prescribes quantified annual deficit reductions when the pact is being violated. It further includes public spending targets. There has been no serious attempt to link any of these rules to the notion of debt solvency and to establish a formal procedure to assess sustainability. The approach, instead, seems based on the notion that governments must be constrained, a form of down-top control.

4.4. Debt brake in Switzerland and Germany

The debt brake rules adopted in Switzerland and Germany are probably among the best rules currently in place. They call for a balanced budget (on average over the cycle in Switzerland and a structural budget deficit of less than 0.35% for the German federal government). Failures to meet this obligation in some years must be compensated in subsequent years. This provides a welcome degree of flexibility to deal with shocks. In place since the mid-2000s, these rules have led to a decline in the debt ratio until the pandemic crisis. Indeed, balancing the budget means that the primary budget is in surplus and that the debt ratio diminishes. Over time, this implies a zero public debt, which accords well with the solvency condition. However, the rule does not take into account specific events like major crises (it has been suspended in Germany in the wake of the Covid crisis) or the situation when $r < g$.

4.5. Spending caps

Championed by Netherlands, spending caps seem to have become fashionable to the point that it has been added to the Stability and Growth Pact. In the latter, public expenditures cannot increase by more than the trend growth rate while in the Netherlands it is a government choice at the outset of a new mandate. The gap between an expenditure ceiling and solvency/sustainability is large. The key hidden assumption is the other side of the budget, tax revenues. This is why the Eurozone rule adds to the expenditure (structural) tax revenue increases, but this really amount to looking at the structural budget balance. There might be some advantage in this procedure as it provides a tool to enforce the rule by mandating spending cuts, but at the cost of an added layer of technocratic management. Even

so, it retains the use of the budget balance as the key target, leaving the debt ratio as an outcome.

4.6. Debt service target

Recently, Furman and Summers (2020) returned to the $r - g$ argument to propose a new rule: keep debt service below 2% of GDP. A very low r can make a high debt ratio compatible with the rule. If r suddenly increases while the debt ratio is very large, debt service stands to strongly increase, it is completely unclear what the government can do to keep debt service below the rule's threshold. There is no link whatsoever with sustainability, which is a forward-looking concept, while debt service is backward-looking.

4.7. Market discipline

Finally, because no rule is completely waterproof, it is tempting to simply rely on market discipline to incite governments to pursue sustainable fiscal policies. In principle, a key function of financial markets is to assess the value of listed firms, which theoretically requires assessing the present value of earnings. Deciding whether the present value of primary surpluses match the current debt level, the solvency condition, so markets are ideally suited to detect sustainability.

Unfortunately, as noted at the outset, present value calculations are crude approximations, at best. The level of uncertainty opens up the door to multiple equilibria, when market expectations suddenly shift in herd fashion. When markets consider that a debt previously considered sustainable conclude that it is unsustainable, a debt crisis occurs with no clear early warning. It is precisely to avoid market-driven debt crises, with dramatic consequences, that we need a fiscal rule.

5. Conclusion

The top-down fiscal rule effectively turns the logic of most current rules on its head. It calls for governments to explicitly choose the assumptions (interest and growth rates, plausible current and future primary budget balances) instead of relying on black-box calculations by their technical staffs. In this way, governments are led to assess the unavoidable uncertainty of any assessment of sustainability, in the understanding that they could face the consequences of optimistic scenarios.

The rule is directly related to the concept of solvency. Solvency is approximated by sustainability in the very long run, as the rule rests on a long horizon and requests the governments to identify what, in their views, is a prudent debt ratio at that horizon. The rule is made operational by each government's commitment to an end-of-term debt target. The instrument, the annual budget balance is the instrument to reach the target. Even though the instrument is not fully under government control, its evolution will differ from the commitment because outcomes differ from the assumptions. This way, deviations are the result of assumptions that turned to be wrong. Since assumptions are likely to be more often wrong than right, the governments become keenly aware of uncertainty and must confront uncertainty *ex ante*, when they make the assumptions. This sets incentives right.

No rule is ever perfect, and this applies to the top-down rule. Any rule is challenged when unexpected shocks occur. Large enough unexpected shocks justify changing the end-of-term and long-run debt targets. The impact on the long-run debt target is likely to be small, but it could be large for the end-of-term target, especially when the end of term is near. The proper

solution is to let the end-of-term target slip away while keeping the long-run target unchanged. But, since the current government cannot commit its successors, there is a risk that political expediency will undermine the rule, especially since the definition of what constitutes a “large enough unexpected shock”. This caveat applies to any fiscal rule, including this one.

References

- Aiyagari, S. Rao and Ellen McGrattan. (1998) “The Optimum Quantity of Debt”, *Journal of Monetary Economics* 42(3): 447–469.
- Auerbach, Alan (2008) “Federal Budget Rules: The U.S. Experience”, *Swedish Economic Policy Review*, Spring: 57–82.
- Barro, Robert J. (1979) “On the Determination of the Public Debt”, *Journal of Political Economy* 87(5): 940–971.
- Blanchard, Olivier (2019) “Public Debt and Low Interest Rates”, *American Economic Review*, 109(4): 1197-1229.
- Collard, Fabrice, Harris Dellas and George-Marios Angeletos (2020) “Public Debt as Private Liquidity: Optimal Policy”, Discussion Paper 15488, CEPR.
- Debrun, Xavier, Jonathan Ostry, Tim Wellens and Charles Wyplosz (2019) “Public Debt Sustainability” in: A. Abbas, A. Pienkowski, and K. Rogoff (eds.) *Sovereign Debt: A Guide for Economists and Practitioners*. Oxford University Press.
- Furman, Jason and Lawrence Summers (2020) “A Reconsideration of Fiscal Policy in the Era of Low Interest Rates”, Discussion Draft, Brookings Institution.
- Jonung, Lars. and Martin Larch (2006) “Improving Fiscal Policy in the EU: The Case for Independent Forecasts”, *Economic Policy* 21, 491–534.
- Kopits, George, Benno Ferrarini, and Arief Ramayandi (2016) “Exploring Risk-Adjusted Fiscal Sustainability Analysis for Asian Economies”, ADB Economics Working Paper Series 483.
- Leeper, Eric M. (2010) “Monetary Science, Fiscal Alchemy”, *Proceedings - Economic Policy Symposium - Jackson Hole*, Federal Reserve Bank of Kansas City: 361-434.
- New Zealand Treasury (2015) *An Introduction to New Zealand’s Fiscal Policy Framework*, New Zealand Government.
- Wren-Lewis, Simon (2011) “Fiscal Councils: The UK Office For Budget Responsibility”, *CESifo DICE Report* 3: 50-53.
- Wyplosz, Charles (2011) “Debt Sustainability Assessment: Mission Impossible”, *Review of Economics and Institutions*, 2(3): 1-37.
- Wyplosz, Charles (2020) “What’s Wrong with Fiscal Space”, Discussion Paper 14431, CEPR, London.