

A critical analysis of public debt under a non-convertible currency standard: Implications for the euro area

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ABSTRACT

The notion of public debt sustainability imposes restrictions to fiscal policy when the outstanding stock of public debt exceeds the projected present value of the primary fiscal balance, a condition that threatens ‘government solvency’. This paper investigates the theoretical underpinnings behind this view and finds that its representation of the consequence of monetization, interest rate endogeneity, and the relation between public deficit and private financial savings are inconsistent with a monetary economy using a non-convertible currency.

The paper concludes that the proposition that the size of public debt and its future trajectory limit the operational space of fiscal policy is not universally valid, and does not apply to an economy under a paper standard and floating exchange rates, like the euro area. This calls for an urgent European reform of fiscal policy that clearly mark a leap forward and contributes to complete the currency area. Hence, to set the single currency on a sustainable path, it is imperative that the euro area designs a structural reform of fiscal policy as an unconstrained stabilization tool. This cannot rely on fiscal capacity as defined at the local government level.

I. INTRODUCTION

The effectiveness and the limits of countercyclical fiscal policy have long been the object of theoretical debate. Besides the question of the size of multiplier effects, a considerable portion of the debate has centered upon the operational question of how to properly estimate a benchmark sustainable debt-to-GDP ratio and assess the “fiscal space” available to undertake desirable fiscal expansion when needed, while maintaining a sustainable fiscal position. This paper aims, however, at a deeper target. This is the theoretical foundation of the very same notion of public debt sustainability and the policy prescription that when public debt, or its trajectory, is above a certain threshold, priority should be given to put the nation’s fiscal house in order.

There are three reasons why this research is of relevance. The first is about theoretical underpinnings. Until the 1970s, a meaningful number of economists considered it naïve to believe that debt-financed public projects shift the real costs to future generations. What theoretical findings have changed so radically the mainstream view on this subject?

Second, in the past two decades, the functional finance proposition that the size of public debt should not prevent the government from undertaking counter-cyclical fiscal policy when needed has been revived by several authors, notably those who developed Modern Monetary (or Money) Theory (MMT). This constitutes a formidable challenge to the notion of public debt sustainability as currently understood. What different assumptions characterize such contrasting ways to approach fiscal policy constraints?

Finally, a review of the key theoretical points in this debate may positively contribute to the ongoing discussion of whether the euro area needs a serious reform of fiscal policy operations and, if so, what its features should be.

Within such goals, this paper unfolds in three sections. Section II outlines the theoretical foundations of the view that policy makers should carefully assess the size of public debt and its future trajectory when contemplating a fiscal expansionary policy. Section III begins by providing a simple framework to analyze the complex mechanics of a monetary economy and then develops a discussion of three main critical points: monetization, interest rates, and financial savings. Section IV concludes with some implications for the euro area.

II. WHERE DOES THE NOTION OF FISCAL SUSTAINABILITY COME FROM?

In the history of modern macroeconomics spanning on the last eight decades, the question of the boundaries of counter-cyclical fiscal policy has been analyzed within different models, and the assertion that public debt is a burden on future generations clearly belongs to the

conventional wisdom of the last four. This section offers a brief summary of the most fundamental changes in thought regarding this issue.

A. The "New Economics" and public debt

When, in the State of the Union address, Dwight D. Eisenhower (1960) committed to present to the Congress a budget that would generate a fiscal surplus aimed at a "reduction on our children's inherited mortgage", the U.S. President's statement was running counter to the conventional wisdom of the time, and notably to the views of the economics profession.

Taking Paul Samuelson's various editions (1950s-1970s) of the then most popular economics textbook as a measure of conventional wisdom of the time (often labeled "New Economics"), the difference in approach visibly stands out. In a section devoted to explain the "false and genuine burdens of the public debt", and elsewhere in the book, Samuelson (1976) explains that the limits to deficit spending are not financial: "the barrier would have to be political and self-imposed, and the effects [...] would depend crucially upon whether it impinges on an economy that is already inflationary or deflationary." (p.371).

He also makes the case for considering government bonds as near-money. As he put it, "True, you do not pay your monthly expenses directly with government bonds, and so we hesitate to call such an item 'money'", but "current spending habits are probably affected in much the same way as they would be if you owned a larger bank deposit instead of the government bonds" (p.281). He then considers government bonds serving the purpose of secondary bank reserves "admirably," and thus not much different from accounts at the Fed (p.297). He also claims that people feeling uncomfortable at the prospect of public debt growing forever display a psychological attitude, not a real concern (p.371). The "principal way one generation puts a burden on itself later or on a later generation is by bequeathing it less real capital than would otherwise have been the case." (p.377) But, "it would be a tragedy if people, in giving up their irrational fears of deficit spending, were thereby led to call the sky the limit. Unlimited spending can produce inflation, chaos, and waste." (p.378)

The view of the time, encapsulated in the "neoclassical synthesis", was that fiscal deficits are needed to ensure an adequate level of aggregate demand when savings are not being sufficiently "absorbed" by, or "channeled" into, private investment. Compensatory deficit spending was viewed as the best way to compensate for the lack of investment, to counter business cycles, and thus deliver a healthier economy to the next generation. This was considered a natural role of the public sector. Rather than

about the size of public debt, concerns were about other difficulties, such as quality control of public spending in a democracy, the aggregate nature of fiscal policy, or the prospect that "tight money markets" would raise interest rates thus calling for accommodative monetary policy to complement with fiscal expansions. In the world of IS-LM, fiscal policy was subject to real constraints (such as the existing productive capacity), not to financial constraints.

B. The burden on future generations

Concurrently, however, a minority view was reviving and developing a vision of public finance that introduced several caveats on government fiscal practice, included the warning that continuous large budget deficits pose a threat to macro-economic stability. The assault to the consensus view of the time came from two directions. One is the theoretically weaker, yet politically influential, view of James M. Buchanan. The other, theoretically more sophisticated, was that of Milton Friedman. It so happens that both critics had strong libertarian views, supporting the belief that the market economy can grow and prosper without much government involvement. However, it is not their political philosophy that interest us here, but the logical and empirical validity of their claims.

For Buchanan, there are moral and political reasons for 'fiscal responsibility'. He admits that a balanced budget limits the choices of the community but he deems desirable not to leave such liberty to politicians. Taking his criticism to a political level, he claims that politicians are very different from the wise and benevolent government that Keynes had in mind, and they are not dependable when they promise to promote the commonly desired objectives of full employment and economic growth, (Buchanan, 1997, p.120). Hence, for Buchanan, restraining the potentially unlimited spending power of the government is desirable because it is desirable to limit the power of the rulers. The democratic process, however, fails to monitor effectively that the government does not threaten macroeconomic stability if both the government and the voters are deficit biased. Hence, in constitutional democracies, it is desirable to establish a constitutional rule that limit the government's power to spend in excess of tax receipts (Buchanan and Wagner, 1977).

An additional, separate argument builds on the hypothesis that public debt, like any other debt, must eventually be paid off. This means that "government borrowing offers a means through which burdens of paying for current public spending can be transferred forward through time and placed on the shoulders of those 'future generations' who will be subjected to the taxes required to service and amortize public debt" (Buchanan,

1997, p.120). This counters Samuelson's argument that any real burden of deficit-financed public projects must fall on the current generation, regardless of whether it is funded by taxes, bonds, or newly printed money.

Well aware of running counter the conventional wisdom of the time, Bowen et al. (1960) developed a two-generation model to formalize Buchanan's point. The model did not go very far except showing that if the government taxes a group of people who hold no government securities and pays interest to another group of people who hold securities and pay no tax, the former is impoverished to the benefit of the latter. The two groups of people are two different generations in a full employment economy where consumers are assumed to increase their desired savings to absorb government debt when this is issued. The logic of the article was harshly rejected by William Vickrey (1961) and Abba Lerner (1961). For the latter, the barrier to deficit spending is not financial but real: "we can impoverish the future by cutting down on our investment in capital resources (or by using up or destroying natural resources) that would have enabled future generations to produce and enjoy higher standards of living".

C. The quantity theoretic view of monetary policy and the limits to public debt

A sharp blow on the mainstream view of the time occurred as a by-product of the Monetarist critique of Keynesian counter-cyclical policies. Friedman acknowledged the relevance of aggregate demand in Keynesian economics, while he explained its rise and fall with fluctuations of monetary aggregates. The money supply became the driver of demand and the spending-saving choice turned back to the old-fashioned loanable funds theory where a real rate of interest is the equilibrating factor between saving desires and investment desires. The key was the general acceptance of Friedman's (1968) point that monetary aggregates expanding faster than the demand for money create inflation in the long run. A few logical steps later, the government budget should be constrained to prevent an uncontrolled expansion of the money supply if the government can no longer roll over its debt and is forced to print money.

Stanley Fischer (1989) provided a systematization of the matter. The fact that governments finance their deficits by issuing bonds (and not by printing its own currency) leaves central banks the task of regulating the money supply at a rate that is consistent with price stability. However, should government debt exceed some threshold where there are no buyers of bonds, the government would be forced to choose between monetize debt, asking the central bank to directly provide the funds necessary for

paying any maturing debt, or else choose not to resort to the central bank and repudiate debt.

While this latter option would produce a loss on public debt holders, as well as hamper the government ability to borrow in the future, the choice to monetize any sizable accumulated debt is no less problematic. In the Monetarist framework, and contrary to Samuelson's observations, substituting central bank money for public debt causes inflation. Thus, both are undesired scenarios: an uncontrolled expansion of the money supply, if the government monetize its unsustainable debt; or an abrupt loss of financial assets, equivalent to a huge taxation, if the government defaults on its debt.

For Fischer, while it is true that a government does not operate under the same financial constrain that applies to private entities (because it politically controls its own central bank), yet a rising public debt / GDP indicates the accumulation of the inflationary potential of a growing debt that can be left without buyers. Public debt thus becomes a potential threat to price stability. Reflecting on Milton Friedman's statement that "inflation is always and everywhere a monetary phenomenon", Fischer (p.138-9) concludes that "governments do not print money at a rapid rate out of a clear blue sky. They generally print money to cover their budget deficit. Rapid money growth is conceivable without an underlying fiscal imbalance, but it is unlikely. Thus rapid inflation is almost always a fiscal phenomenon." For this reason, and not because it is forced by a true financial constraint, fiscal discipline became to be viewed as a way to protect the economy from future hazards. As Sargent (2010) put it, fiscal rules are "intended to protect monetary policy from the need to monetize government debt."

Fiscal discipline also means to protect monetary policy from 'fiscal dominance'. This is a situation where high public debt puts pressure upon monetary policy to ensure the solvency of the government (via rates too low and/or direct purchases of public debt) and consequently, as Jens Weidmann (2013) put it, "monetary policy is no longer able to control the inflation rate, and therefore welfare losses will occur."

D. From a self-imposed budget constraint to the no-Ponzi game condition

With the development of micro-founded modeling, the policy proposition that government deficit spending should be consistent with long-term fiscal discipline to safeguard macro-economic stability was integrated into Dynamic Stochastic General Equilibrium (DSGE) models as a condition for financial solvency, much in the same way as the budget constraint faced by any private entity. While it is widely acknowledged that a government is a

“special borrower”¹ because it can create its own currency to face obligations, and while a budget constraint to the government is not the outcome of a binding financial constraint, the hypothesis that public debt monetization is equivalent to default was promoted to a somewhat axiomatic constraint. The concern for the inflationary threat of public debt became the concern for solvency. This way of modelling the constraints of fiscal policy implicitly assumes that the damage of monetization is likely to be at least equal to debt default.

Accordingly, DSGE models include the no-Ponzi game and the transversality condition, assuming that all agents are subject to the intertemporal government budget constraint. Regardless of whether they are users or issuers of the national currency, any agent, including the government, is on a sustainable path if the existing debt is expected to be paid in full through future cash flows. In fact, the assumption of a binding financial constraint for all units is needed to run general equilibrium models. As Leijonhufvud (2014) put it, to do general equilibrium models “without binding budget constraints is not easy”. He also argues: “remove the transversality condition from DSGE models and everything unravels.”

Hence, the government budget is ultimately subject to the same financial constraint as any other economic unit. Formally, a government is solvent if the outstanding stock of public debt does not exceed the projected present value of the primary fiscal balance. Yet, assuming that this condition always holds implies that the same constraint that is binding under gold or currency board convertibility (when governments are financially constrained to balance the budget inter-temporally), equally applies to contemporary economies with non-convertible currencies.

Once the principle is accepted that governments not only should, but effectively are subject to an intertemporal budget constraint, there follow two logical implications. First, a necessary condition for fiscal expansion is that the government has the capacity to finance its desired programs, to service any debt obligations, and to ensure its solvency.

Second, the expansionary power of deficit-spending is also called into question. Deficit-spending adds financial assets to private sector’s balance sheets, but its power to prompt an increase in aggregate demand depends on whether the private sector will consider public debt as a component of its net financial wealth. If one assumes that agents hold rational, model consistent expectations, it means that agents behave in their best interest on the basis of a view of the world that coincides with that of the model. Accordingly, they view government borrowing as

the anticipation of future taxes, and will not consider public debt as net financial wealth.² Agents, in other words, are assumed to believe that the budget constraint is a state of nature and thus conform their behavior to it, undermining the power of fiscal policy. As a result, the effectiveness of expansionary or contractionary fiscal policy is much weaker than assumed under Samuelson’s IS-LM framework.

E. Pro-cyclical fiscal policies

In most OECD countries, fiscal policy went through three phases during the Great Recession. At the early stage of the crisis, policy-makers let negative fiscal balances grow, thus partially compensating the downfall in demand. As the slowdown of the economy resulted in a surge in the public debt / GDP ratio, fiscal policy was subsequently tightened, with the fiercest determination in the euro area, where statutory limits to public deficits and debt exist. This course of action was justified by the belief that fiscal consolidation would have only limited effects on growth and jobs, and that bringing debt below some “tolerance threshold” would make it manageable when facing the next recession. Moving to consolidation in countries where the economy had not yet fully recovered, or was still in the midst of the recession, was labeled ‘austerity’.

Evidence of a deeply negative impact of pro-cyclical fiscal policy resulted in some relaxing of ‘austerity’ policies, including in the euro area. In 2013, IMF economists Blanchard and Leigh (2013) acknowledged that fiscal multipliers were substantially higher than implicitly assumed by forecasters. There followed a third phase, when the EU Commission softened its role as guardian of debt rules, and even recommended a timid expansionary stance of fiscal policy. The euro area, however, does not yet have a centralized, and not even a coordinated counter-cyclical fiscal policy. As in any currency union, lower-level government agencies (member nations’ budgets) are subject to budget rules, and when their room for countering the cycle is exhausted, nothing is left, except the voluntary and politically unlikely commitment by other countries with bigger fiscal space.

A sounder call for “a discussion on the overall fiscal stance of the euro area” came from Draghi (2014), advocating for stronger policy coordination. In his speech, Draghi explained that the limited fiscal space in the euro area, compared to other major advanced economies, was not a consequence of higher debt ratios, but it reflected the fact “that the central bank in those countries could act and has acted as a backstop for government funding.”

¹ As in Abbas et al. (2018).

² As in Barro (1974).

Few would now agree that the harsh ‘austerity’ response was worth its economic and social costs. The question remains, however, if it was only a question of magnitude and speed of adjustment, if the overall theoretical justification of austerity was flawed, or if the options were misrepresented because of a lack of understanding of the relevance of currency regimes and government levels in defining fiscal space.

III. THE LIMITS OF PREVAILING CONVENTIONAL VIEWS OF PUBLIC DEBT

In the past twenty years, several authors, notably those who developed MMT, have challenged the notion of public debt sustainability as mainstream models define it. There are two lines of criticisms. First, most models fail to take in due account the mechanics of fiscal and monetary policy, including the way in which these are uniquely constrained under a convertible currency regime.³ Second, most models fail to consider the consequence of the fact that the fiscal balance is necessarily equal, with an inverted sign, to the fiscal balance of all other sectors in that given currency. This section begins by providing a simple framework to consider the complex mechanics of a monetary economy and then offers a discussion of such two criticisms.

A. The features of contemporary monetary economies

In contemporary monetary economies, private agents sell goods, final services, and productive services through contractual obligations that include a monetary compensation to be settled in units of national currency that are not convertible into any other asset that the central bank must obtain from third parties. The national currency is a liability in the balance sheet of the central bank that can be held as a physical object owned by the holder or as a credit balance in the holder’s account at the central bank. This liability is denominated in units that are given the name that defines the currency (e.g., one unit of claim on the ECB is one euro).

As with any other kind of liability, the currency is redeemable from its issuer: currency holders can use it to make any payment to the central bank and, in general, to the public sector (including payments for the purchase of services delivered by the public sector, settlement of fines, taxes, or mandatory compensation set by a judicial court). The liability of the central bank acquires a monetary function when private agents find it convenient to denominate their contracts in that currency (that they know has value as a claim on the public sector) and thus settle payments by transferring the ownership of a claim

on the central bank or, alternatively, of a claim on a licensed bank.

In actual fact, payments in contemporary monetary systems are almost entirely settled through banks. These are institutions licensed to issue their own liabilities for providing a payment system alternative to banknotes as well as for providing loans based on credit analysis. When economic entities hold a deposit balance at a bank, however, they hold a claim on a commercial bank, not on the central bank, and such claim can be a substitute for the national currency only if credit risk is removed. Central banks do this by insuring banks’ liabilities and by providing liquidity against banks’ assets. This supports a permanent one-to-one conversion rate of banks’ liabilities into the national currency.

To sum up so far, in contemporary monetary economies, the central bank is the monopolist issuer of non-convertible central bank money in the form of deposit balances, while banks are issuers of bank money and users of central bank money, and the non-bank private sector and the foreign sector are users of both. New deposit balances (whether at the central bank or at banks) originate only from issuers’ purchases (notably, loans). Unquestionably, any payment between users does not affect the quantity of deposit balances, while this quantity will change when payments are made by issuers (increasing) and when payments are made to issuers (decreasing).

Banks make lending decisions based on credit analysis. This activity is constrained by equity capital and existing regulations. It cannot be constrained by the balance of liquidity at the central bank, as the central bank will always settle payments to licensed banks at the agreed terms and conditions. These include an interest rate on central bank loans as well as a remuneration rate of balances at the central bank. With a non-convertible “tax-credit” currency, the central bank necessarily maintains, as the monopolist supplier of the currency, full control of these two interest rates that can be set at any desired level. A market for balances at the central bank develops once the central bank sets a penalty rate for end-of-business-day overdrafts.

While in principle the central bank could target the quantity of banknotes, this is wholly decided by its users. By contrast, the central bank can target the banks’ net total balances at the central bank by either setting minimum reserves (in the absence of which net total balances fall to zero, except for a small precautionary, demand-driven

³ One notable exception is provided by Bindseil and Winkler (2012), who clearly differentiate between “paper standard

under fixed exchange rates”, “paper standard under flexible exchange rates”, and “gold standard”.

balance), or by expanding banks' balances over and above the minimum through an asset purchase program.

Normally, the government makes payments out of its own deposit at the central bank. If a no-overdraft rule and a direct-government financing prohibition are self-imposed, funding of government spending can only come either from tax revenue, made possible by prior government spending, or by central bank lending to banks using the funds to lend to the government. To the central government, the nature of a direct-government (monetary) financing prohibition is wholly political as, technically, there is no operational difference between indirect and direct financing of the central government, and the central bank can act as a backstop for government funding.

In both cases, the source of the government account balance is the central bank, and the interest rate on the shortest maturities is driven by the interest rate that the central bank sets in the money market through some form of corridor system. If the central bank does not set interest rates at longer maturities, the interest rates on long-term government securities are driven by the expectations of future policy rates.

MMT economists have also stressed an operational reason for issuing government securities: while a no monetary financing prohibition is a reason for the government to issue securities to acquire a positive balance at the central bank, securities should be issued to the private sector also in the case of direct monetary financing securities. This is because the offering of government debt to the private sector, far from being an operational means to acquire spending power, is "a necessary condition for the government to maintain a positive targeted overnight interest rate."⁴ This is also in harmony with a statement by Beardsley Rumel (1945, p.35) when he was a director of the New York Federal Reserve Bank. Describing the central bank system of the United States, whose currency "is not convertible in any commodity", he claimed that "the necessity for a government to tax in order to maintain both its independence and its solvency is true for state and local governments, but it is not true for a national government". For Rumel, it was important to identify the true social and economic public purpose of the tax system that "should never be obscured ... under the mask of raising revenue".

B. The consequence of monetization

When the central bank trades central bank money for public debt, it said to monetize public debt. A common, narrower definition is that the central bank would monetize public debt if it credit central bank money to the Treasury in exchange for Treasury securities so the

government can finance fiscal spending in excess to tax revenue without borrowing from the market. In this sense, monetization is a synonym for 'printing money' as a source of government deficit financing.

It is precisely when the central bank offers the Treasury such funding channel that Monetarist models predict inflation, irrespective whether this happens as a means to finance the annual deficit, or as a means to paying off the outstanding maturing debt without issuing new debt to roll over. Dealing with the theory of the government budget constraint, Fischer (1989) argues that "it is straightforward to relate the creation of base money to inflation in the usual monetarist way. The printing of money at a rate that exceeds the demand for it at the current price level creates excess cash balances in the hands of public. The public's attempts to reduce excess cash holdings eventually drive up the overall price level, until equilibrium is restored." Along the same logic, with respect to the Fed's quantitative easing, John Taylor (2012) argued that "this large expansion of reserve balances creates risks. If it is not undone, then the bank reserves will eventually pour out into the economy, causing inflation. If it is undone too quickly, banks may find it hard to adjust and pull back on loans."

Models assuming the quantity theoretic view of money describe deficit spending financed via monetization and deficit spending financed via market financing (i.e., selling securities in the primary market) as being two very different operations with different consequences. This, however, dismisses the fact that in a monetary economy with a non-convertible currency, i.e., under a paper standard and with flexible exchange rates, there is no operational difference between government net spending being directly financed by the central bank via monetization and government net spending being financed by the private sector (i.e., by selling securities in the primary market). If we compare two identical government expenditures, one funded by the central bank and the other funded by the private sector, the source of money is the same: the central bank. In addition, the private sector acquires in both cases the identical amount of bank deposits from selling output to the government sector. The only difference is the type of asset that banks acquire: a deposit at the central bank in the case of "monetization", or otherwise a term deposit with the Treasury (i.e., the government securities purchased).

In addition, this difference can be eliminated through a standard monetary policy action such as open market operations. The excess reserve balance in the monetization scenario can be changed into a securities balance, and the

⁴ Mosler (1997, p.173).

securities balance in the other scenario can be changed into an excess reserve balance. Irrespective of how banks' assets are distributed between bank liquidity and government securities, the net financial position of the private sector and the net liabilities of the consolidated public sector do not change.

The monetization channel can only be inflationary under a convertible currency regime, where bank loans are reserve-constrained, and substituting central bank money for government debt increases the quantity of money for a given gold, or foreign currency reserve. Hence, the monetary financing prohibition applied to the primary market does not serve the purpose of blocking a mode of deficit-financing that is inherently inflationary. As Samuelson argued, substituting central bank money for public debt does not cause inflation. Rather, the prohibition serves the political purpose of granting the central bank the exclusive power to set policy rates independently from the government.

C. When are interest rates endogenous?

As the ECB claims on its website, “[B]y virtue of its monopoly, a central bank is able to manage the liquidity situation in the money market and influence money market interest rates.” Under a paper money standard with floating exchange rates and normal circumstances, not only central banks can set money market interest rates at any desired level, from below zero to big digits (e.g., 500% for the Bank of Sweden in 1992). They are also free to make autonomous decisions on the policy rate, and government securities issued by the central government, for which the central bank offers a backstop, will trade at yields that are determined by current and expected monetary policy.

A constraint will occur if the central bank operates under a gold standard or paper money with fixed exchange rates. In both cases, the central bank provides the holders of government securities a guaranteed exit strategy at a fixed price should they wish to shift from the domestic currency to gold, or to a foreign currency. Outside of this regime, the central bank autonomously set, or influence, the interest rates at different maturities, while markets will determine risk and liquidity premiums for all other financial assets.

A different condition applies to public debt issued by lower government levels, for which central banks do not typically offer a backstop.⁵ Hence, local debt is credit-sensitive, and risk depends on the political willingness of

the government to assist financially a lower-level authority in case this is facing a fiscal crisis.

D. The budget deficit and private financial savings

Fischer (1989) had exemplified the negative repercussions of an increase in the budget deficit by using the well-known macroeconomic identity:

$$\text{Budget deficit} = (\text{private saving} - \text{private investment}) + (\text{current account deficit}).$$

His argument was that if the saving behavior of the private sector is given, “an increase in the budget deficit will result in either a reduction in investment or an increase in the current account deficit”.

This, however, is only valid if the assumption that the rate of saving is given does not conflict with financial accounting. As I have more extensively shown in Terzi (2016), the value of private saving in the macroeconomic identity above includes both the value of real assets produced and not consumed (i.e., the accounting record of investment) as well as the net financial assets that the private sector has acquired from the public sector and the foreign sector. This means that, as a matter of accounting, an increase in the budget deficit (spent domestically) causes an equivalent increase in the financial component of private saving. The subsequent impact on investment and the current account depends on how the private sector will respond to such increase in net financial wealth.⁶

Private financial savings exist only as the counterpart of some other entity's liabilities, and an act of financial saving by one economic unit requires funding and must be associated with and validated by an act of another unit issuing debt. In sum, every penny saved is someone else's liability, and savings in a monetary economy do not fund, they need to be funded. Hence, in a monetary economy, financial savings are not a source of funds available for investment, or for financing government deficit spending. While in a non-monetary (real-exchange) economy, a stored (saved) amount of output for consumption can fund the production of a real asset, in a monetary economy, financial savings do not fund production. Instead, one penny less of spending that is loaned to business just provides business with enough cash to resolve a problem of lack of funds that was caused by the fall in spending in the first place (Terzi, 1986).

Because every new private financial claim that comes into existence must be the counterpart of another liability (private, public, or foreign), the flow of financial assets to the domestic private sector must be validated by the willingness of private entities, or the government, or non-

⁵ The introduction of OMTs in the Eurosystem are an exception explained by a lack of central government public

debt, and by the consequent necessity to offer a conditional backstop to the euro.

⁶ See Steindl (1982) and Godley and Cripps (1983).

resident entities to stay in debt with the domestic private sector. Figure 1 highlights how the composition of liabilities funding household savings in the euro area has changed in the last ten years: increasingly less public debt (following fiscal consolidation) and increasingly more claims on foreigners. It is also noticeable how non-financial corporations, since 2013, have consistently invested less than their profits.

IV. CONCLUSION

Although it is generally agreed that it is very difficult to define specific debt thresholds beyond which sustainability can be put into question,⁷ and despite the mounting criticisms developed in the last 20 years, the notion of public debt sustainability remains a popular basis for the approach to fiscal policy of most policy advisers today. The Bank for International Settlements, for example, warns that “interest rate normalization could further reduce fiscal space” (BIS, 2017, p.56). For the BIS (2016, p.97), “debt limits should not be interpreted as boundaries that can be safely tested. Prudent policymakers should try to keep debt levels well away from them.”

A review of the theoretical underpinnings of the notion of public debt sustainability reveals, however, that it is hardly consistent with a monetary economy under a paper (non-convertible currency) standard and a floating exchange rate, like the euro area. This means that a monetary financing prohibition does not change the substance of monetary policy, with one important caveat. If, in addition, credit risk on government securities is created by political design, one fundamental instrument of financial stabilization is removed. As Bindseil and Winkler (2012, p.4) explain, “a central bank that operates under a paper standard with a flexible exchange rate and without a monetary financing prohibition and other limits of borrowings placed on the banking sector is most flexible in containing a dual liquidity crisis.” They also argue that a provision that also prevent the central bank from participating in the secondary market for government securities intensified the German crisis of 1931 as well as the Eurozone crisis in 2010-12.

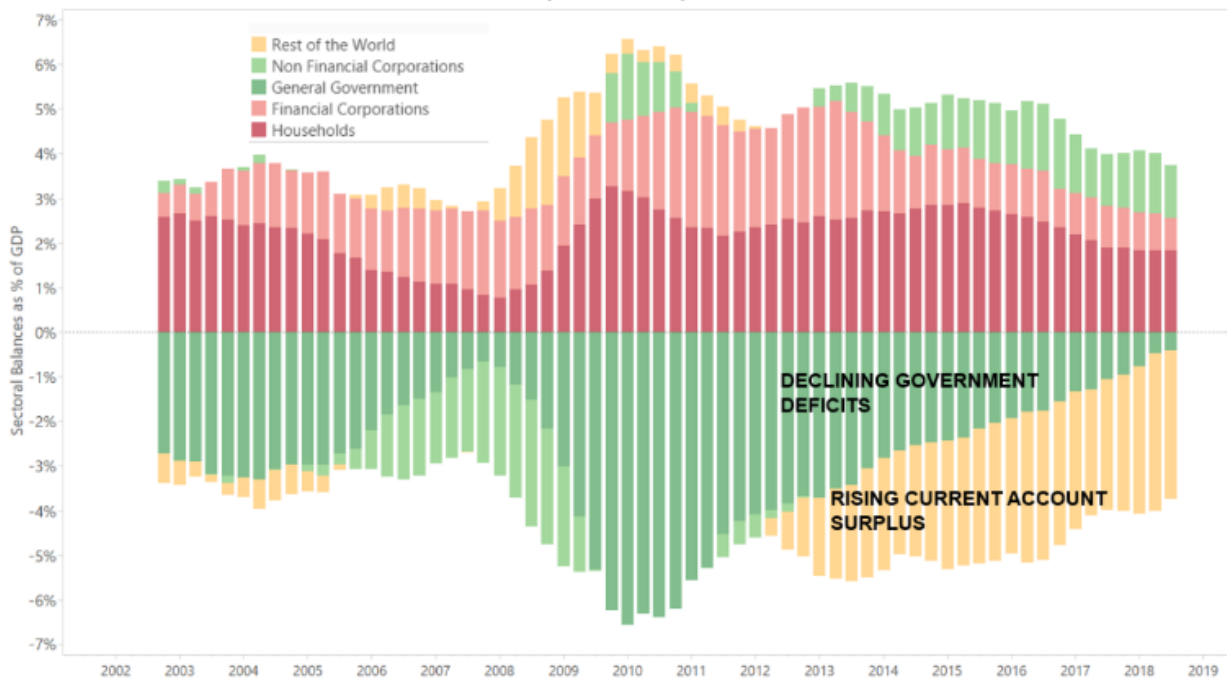
While political limits to the intrinsically unlimited power of the central government to spend are reasonable, the emphasis on the principle that public debt must be consistent with financial constraints that only apply to lower-level fiscal authorities (or to different monetary regimes) is likely to be counterproductive. This calls for an urgent European reform of fiscal policy that clearly mark a leap forward and contributes to complete the currency area. Hence, to set the single currency on a

sustainable path, it is imperative that the euro area designs a structural reform of fiscal policy served by an unconstrained stabilization tool. Political Europe must move quickly, and economists bear the responsibility of providing good advice.

⁷ Abbas et al. 2018

Figure 1.

Euro Area: Sectoral balances (2003-2018) (Source: ECB)



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