Sub-sovereign bond buyback: fit for purpose or a boondoggle for the public finances?

Abstract:
Previous literature criticised bond buyback as a 'boondoggle benefiting a country's creditors', meaning that buybacks are a wasteful use of public finance. This paper challenges the narrow financial-economic perspective behind that statement by adopting a broader socio-political framework that includes the potential benefits of buyback for citizens, not just financial market costs. In particular, buyback does not necessarily require a budget surplus via higher local taxes and/or increased austerity measures.
## COVERING LETTER EXPLAINING AMENDMENTS MADE IN RESPONSE TO REVIEWERS’ COMMENTS

<table>
<thead>
<tr>
<th>Reviewer 1 comments</th>
<th>Summary of changes made in the resubmitted paper in response to this reviewers’ comments</th>
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<tbody>
<tr>
<td>The paper “Sub-sovereign bond buyback in the Euroarea: a boondoggle for governments?” presents a very interesting and relevant case study. The rational of bond buybacks has primarily been discussed for isolated countries in the context of emerging markets. The paper reviews the specific situation in which Italian regions have financed themselves with bonds and why a buyback made sense in the political, economical and financial environment of the Euro area with strengthened fiscal rules.</td>
<td>No revisions are required in response to this accurate and concise summary of the paper.</td>
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<td>No revisions are required in response to this accurate and concise summary of the paper.</td>
<td>We have restructured the description of the case study into two sections. Section 4 now explains in detail the derivative system and why it is relevant in a debt restructuring operation. Section 5 now provides and analyses quantitative data relating to Italian regional governments’ buyback operations. That analysis now distinguishes between financial flows and stock of debt and is strengthened by consideration of qualitative data. Regarding financial flows, we now consider the associated cash movements among the actors involved in those buybacks, detailing the Euro totals involved (Table 2) and the percentages for national and regional governments (Table 3). Illustrating these aspects makes clear how and why the buyback is neutral or even beneficial for public accounts.</td>
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<td>The weakness of the paper is the lack of a precise quantitative analysis of the presented examples.</td>
<td>The analysis in Sections 4 and 5 of the resubmitted paper now recognises that the presence of derivatives is not a secondary issue but rather is the critical argument on which the Italian buyback is centred. In fact, understanding the link between derivatives and bonds has made it possible to understand why buybacks do not necessarily require budget surplus or a tightening of austerity measures. This aspect has been neglected by the previous literature. The previous version of this paper already made reference to the IMF Guidelines to emphasise the need to “be aware of the financial cost and redemption scenarios that could arise, as well as of the potential consequences of derivatives contracts” (p. 10). Nevertheless, we had not completely explored the implications of this statement within the case study. Accordingly, following the suggestion of the reviewer, we have now detailed the overall buyback operation and the role of derivatives. Making use of the recommended papers by Lagna and Zorzetto, we now give a comprehensive explanation of technical features, such as the use of derivatives and their role in public debt portfolios. Hence, the issue of derivatives and their link to bonds is now critically explored in the resubmitted paper. Shifting the focus to these aspects, we re-arranged the rest of the text. The description of the buyback procedure (Figure 1) has been reduced, the changed focus permitting readers to appreciate that fulfilment of the conditions underlying the buyback relate to the derivatives positions. Table 2 gives an overview of the bonds’ main features and we have now used it as a coupling for the two new sections. It provides evidence of the role of derivatives in the bonds pricing as explained in the previous section and, at the same time, introduces the quantitative analysis.</td>
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<td>I would recommend the authors to explain in detail which legs of the bond and derivatives positions led to which performance and what the influence factors (interest rate risk, credit risk, foreign exchange risk) are for the results of the transactions in table 2. The papers of Zorzetto, Ugo (2018) “The use of derivatives contracts by Italian local authorities” and Lagna, Andrea (2015) “Italian municipalities and the politics of financial derivatives: rethinking the Foucauldian perspective”. Competition and Change, 19(4), pp.283-300 give additional insight into the type of transactions.</td>
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<tr>
<td>Reviewer 2 comments</td>
<td>Summary of changes made in the resubmitted paper in response to this reviewers’ comments</td>
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<td>I thoroughly enjoyed the article and I am keen to know how this would work in practice in, for instance local authorities in the United Kingdom.</td>
<td>Section 6 briefly considers bond buyback in the UK by referring to its potential role in the Prudential Borrowing Framework (PBF). Again, revisions made in response to Reviewer 1 comments are highlighted in the resubmitted paper by using the track changes mode in MS Word.</td>
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<tr>
<td>Your major example is set in provincial Italy and I cannot relate the experience there to what it would be under a different financial regime here.</td>
<td>The UK is not in the Eurozone, may soon leave the EU (i.e. Brexit), and may cease to impose further austerity measures on local governments. Nevertheless, the UK public sector will undoubtedly long remain subject to fiscal consolidation measures already introduced and has adopted rules for sustainable borrowing and debt, including the golden rule. It is not within the remit of this paper to analyse the UK situation that presently is in a state of considerable flux. Furthermore, such consideration would take the word count of this paper far in excess of the permitted maximum. Hence, there is no amendment to the paper in response to this comment. Indeed, it is not clear whether this comment requires amendments. We hope that Reviewer 2 will be satisfied with the reference made to the UK’s PBF as noted above.</td>
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<td>I accept that the EU regulations are universal but the UK government has always had a restrictive view as to what is legal and was is not.</td>
<td>Again, it is not clear whether this comment requires an amendment and there is none in response to it. The UK does indeed have a rather restrictive (prudential) view as to what is legal and what is not in respect of borrowing. Nevertheless, UK local governments do have powers to borrow, have exercised them in the past and will almost certainly continue to do so in the future. This issue has already been addressed in Public Money and Management (2009, Vol 29 No 1 pp11-18. Making More Widespread Use of Municipal Bonds in Scotland? S. J. Bailey, D. Asenova and J. Hood). Subject to any contrary legal judgement in respect of a particular court case, bond buyback would appear to be legal in the UK.</td>
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In any organisation a considerable debt overhang (i.e. when the existing debt is so great as to undermine future financing operations) reduces the incentives for investment and so the reduction of debt incurred by public authorities has assumed a key role throughout the public debate in the vast majority of countries (Claessens and Dell’Ariccia, 2011). In the EU austerity context, however, to achieve any public debt reduction may be challenging because this may require a budget surplus. Increases in an individual nation’s money supply\(^1\) are not possible in the Euroarea and governments could achieve this surplus in their fiscal balance only by increasing taxes and/or reducing expenditures, thereby depressing aggregate demand. In other words, debt management approaches would require intensification of the austerity programme in the short term. That might cause GDP to fall and so there is no guarantee that debt reductions would reduce (and so relieve the pressure on) the debt/GDP ratio.

An alternative approach is to use a Bond buyback when the value on the financial markets of the outstanding debt of a sovereign borrower quotes significantly below its face value, which involves its retirement before its official maturity against a cash payment (World Bank, 2015). In this case, a government may try to improve the financial position of its public sector by purchasing some of its own debt through a buyback transaction (Baglioni, 2015). Assuming ceteris paribus, repurchasing bonds in advance of their maturity reduces the costs governments face in servicing their debt, their payment of interest on the remaining stock of unredeemed bonds decreasing in line with the reduction of the stock of debt (Marchesi, 2006). Different from other debt reduction schemes, buybacks do not necessarily require budget surpluses to be achieved because they may be also financed through resources provided by

\(^1\) At the supranational level the European Central Bank’s programme of Quantitative Easing was in place at the time of writing.
external actors (e.g. IMF, World Bank, the Troika) or through debt management practices with neutral budgetary impact.

The existing literature on bond buyback largely focuses on the first type but, regrettably, even this funding method exacerbates austerity as result of the collaterals required by the financial donors: an example of this is the Greek bailout. Therefore, this paper provides new evidence that bond buyback can also be funded through proper use of creative accounting practices without the need for a budget surplus or greater austerity.

Buybacks have previously been analysed within an economic and financial framework, whereas this paper adopts a wider analytical framework that posits that the balance between the pros and cons of buyback depends upon the opportunity cost of austerity to citizens, not only to the financial market. That opportunity cost is what has to be foregone by using public money to buyback bonds instead of using it to finance improved public services. Even though the literature showed that creditors benefited more than debtors from bond buyback in previous decades (Bulow and Rogoff, 1988, 1991), this is not necessarily the case in the post-2009 fiscal crisis era, in which there were other reasons for countries to engage in buyback that could not be foreseen by that previous research. The EU’s Fiscal Compact provides the new context for researching the distribution of benefits between debtors and creditors of bond buyback. For heavily indebted EU countries there are profound benefits to be gained by avoiding the very considerable financial penalties of failing to conform with the Fiscal Compact’s debt reduction schedule, perhaps also reducing the possibility of leaving the EU by avoiding the coming to power of its internal anti-austerity/anti-EU political parties. These relatively new European fiscal rules and austerity-engendered socio-politico dimensions provide a very different analytical framework within which to study sovereign bond buybacks and whether they are fit for purpose.

This paper will try to fill this gap in the literature by considering three research questions. First, whether member states may be able to engage in bond buybacks to avoid or otherwise minimise the negative externalities (i.e. adverse social and economic effects)
resulting from the EU-wide public sector austerity programme. Second, the options available to member states to finance buybacks of their bonds and the feasibility of those measures. Third, whether bond buybacks could actually help member states reduce their levels of outstanding governmental debt sufficiently in order for them to achieve the progressive debt reduction required by the Fiscal Compact and, more generally, comply with Stability and Growth Pact (SGP) rules without being solely reliant upon spending cuts and/or tax increases.

This may be possible under a debt management perspective and using creative accounting practices. Although the EU is relying on macroeconomic control tools (such as debt ceilings and balanced budgets), at the microeconomic level ‘efficient management of the public debt portfolio, lower hedging costs, and greater ability to absorb exogenous shocks could be facilitated by debt management practices that take into account the government’s overall balance-sheet structure’ (IMF, 2014, p. 14). In this regard, both the directive 2011/85/EU (the Budgetary Frameworks Directive) and the IPSASs (the internationally recognized accounting standards for the public sector) agree that reliable public accounting practices are a precondition to achieve sustainability of public finance, and to contribute to the more accurate public debt management and fiscal consolidation (IFAC, 2017a, 2017b).

Answering the three research questions, the paper focuses upon analysis of the Italian regional bond buyback at the end of 2015, whose critical element relates to the characteristics of the hedging system of bullet bonds through sinking funds and amortizing swaps. When derivatives play a role in debt management, ‘accounting […] is crucial for strengthening confidence in the soundness of the government’s financial position’ (IMF, 2014, p. 18). The new analytical framework for bond buyback developed in this paper builds on this fundamental consideration and, for this reason, buyback oriented towards the EU’s fiscal rules could become seen as very effective as an alternative to spending cuts and tax increases.

This paper analyses Euroarea debt reduction using an Italian case study but first provides a description of the specific circumstances of the Euroarea and a comprehensive critical literature review on bond buybacks.
1. The EU’s fiscal framework

The EU’s fiscal rules are founded on both the 1992 Maastricht agreements (i.e. government deficits limited to 3% of GDP and public debt to 60%) and the Stability and Growth Pact. These rules have been strengthened over time because of the severe crisis which involved the Euroarea after the unsustainable condition of Greece’s public accounts was revealed. ‘The [Greek] crisis showed that it was possible to have a sovereign debt crisis in a European Member State and that earlier concerns related to non-compliance with the Stability and Growth Pact were pertinent and real’ (Zandstra, 2011, p. 287). The implementation of stronger financial rules (i.e. ‘Six Pack’, ‘Fiscal Compact’ and ‘Two Pack’) became necessary because countries underestimated the risks arising from having current expenditures greater than tax revenues over decades (Fingland and Bailey, 2008; Bailey et al., 2014).

Most of the amendments to the European fiscal framework concern the new fiscal rules established by the Fiscal Compact which apply to national budgets, and strengthens the abovementioned debt and deficit limits by introducing stricter numerical rules along with automatic correction mechanisms: of these the most significant are the debt brake\(^2\) rule and the balanced budget\(^3\) rule. Countries that meet these new numerical rules are in the ‘preventive arm’; otherwise, they are in the ‘corrective arm’. Being in the corrective arm may lead to initiation of the Excessive Deficit Procedure, which could also entail financial sanctions imposed on EU member states. The objective of the preventive arm of the SGP is to promote sound public finances and ensure the sustainability of public finances to avoid the occurrence of excessive budget deficits - and debt - (Vade Mecum on the Stability and Growth Pact, 2016), and through which to restore economic growth conditions. However, ‘thresholds have been imposed that, if exceeded, result automatically in austerity measures. The intention has been to

\(^2\) Debt brake requires that when debt-to-GDP ratio exceeds 60%, it must be reduced by one-twentieth (5%) of the part exceeding that amount per year.

\(^3\) Public budgets are ‘balanced’ when its deficit does not exceed 3% of GDP, and when the structural deficit does not exceed the country-specific Medium-Term budgetary Objective, 0.5% if the debt-to-GDP ratio is equal to or higher than 60%, 1% if lower.
establish rules beyond the reach of politics and thereby to constrain the state and insulate it from democratic pressures that tend in an expansionary direction’ (McBride, 2016, p. 7).

To adhere to these new parameters ‘implies not only upwards migration of standard setting to the European level, but also the centralization of standard setting within each EU Member State’ (Heald and Hodges, 2015, p. 1009). Overriding such a core national government function is a considerable challenge for the EU and its Member States, because it effectively diminishes the constitutional relationship between the state and its citizens. The ‘burden’ of austerity is borne by the general community and so, for them, whether austerity-driven fiscal policy is acceptable or not depends upon the opportunity costs they face.

Austerity is widely regarded as having led to increased inequality and injustice as a result of the reduction in state intervention. In this regard, Bracci et al. (2015) provided a detailed overview of the negative economic and social consequences of austerity measures, which are in stark contrast with the EU’s welfare model inspired by social justice, equity and solidarity (Petmesidou and Guillén, 2014). These outcomes would appear to be incompatible with the expectations of many countries when they joined the EU, envisaging benefits of sharing economic prosperity, national security and improved social welfare that far outweighed any possible risks.

Unsustainable debt was previously only a matter for creditors and debtors but nowadays Eurozone countries have to fulfil their debt obligations to maintain the integrity of the EU. Thereby, since the adherence to the new governance parameters implied the centralization of standard setting to the European level (Heald and Hodges, 2015), many countries became subject to Troika⁴ assistance programmes without which they would not have been able meet their short-term debt-repayment obligations and so would have defaulted on debt repayment (Agostino and Lapsley, 2013). However, ‘the conditions attached to each tranche of finance have included extreme austerity programmes, such that the dependent economies have

⁴ The European Central Bank, European Commission and International Monetary Fund.
experienced increased unemployment, severe economic downturns, social unrest and the migration of skilled workers’ (Cohen et al., 2015, p. 985). Thus, the Troika’s fiscal consolidation approach to debt management applied over such an extended period has revealed its financial, socioeconomic, constitutional and other limitations, disappointing the populace and destabilizing the political scene. Consequently, within this much broader context, assessment of the effectiveness of bond buybacks cannot rely exclusively on financial parameters. Buybacks are beneficial for highly indebted countries to the extent that they help them meet Fiscal Compact requirements, reduce the pressure on their debt-to-GDP ratios and free up financial resources for public services in the long term.

However, considering that this set of rules is applicable only to the national level, and that many European states (e.g. Spain, Italy and Germany) are characterized by several tiers of sub-sovereign issuers empowered to issue and manage their own debt, EU financial stability might not be guaranteed. Domestic stability pacts have been adopted across Europe in order to strengthen the control over local government accounts, but sometimes they went into pre-existing local debt regulation (Monacelli et al., 2016) leading to overlapping regulations. Therefore, the concept of sub-sovereignty refers not only to the financial autonomy of the issuer but also to the balance of powers between national and supranational rules that govern this financial autonomy. The aftermath of European fiscal rules within this framework is that regions are effectively unable to manage their debt: municipalities must now seek to reduce their levels of debt so that the national government can comply with the Fiscal Compact’s progressive debt reduction schedule.

2. Bond buyback literature review

Bulow and Rogoff (1988) studied bond buyback schemes in developing countries, critically categorising them as a ‘boondoggle benefiting a country’s creditors’ (Bulow and Rogoff, 1988, p. 676), meaning an unnecessary, wasteful or fraudulent project. This, they said, is because a rational bondholder will require a payment higher than the redemption value of the bond (or its
market price) in order to sell back to the issuer. Hence, bond buyback raises the market value of the debt left outstanding, and consequently it may worsen - rather than improve - the net asset position of the sovereign (Claessens and Dell’Ariccia, 2011). For example, in 1987 Bolivia received $34 million from the IMF and World bank to buy back its sovereign bonds. The face (i.e. redemption) value of those bonds was $670 million but their market value was only six percent of that (i.e. 6 cents on the dollar) and so the market value was just $40.2 million. That being the case, Bolivia was supposed to be able to repurchase around 85% of its total sovereign debt. However, the 1988 buyback price raised up to 11 cents on the dollar and so Bolivia was able to buyback only 46% (Krugman, 1988, 1989; Bulow and Rogoff, 1988, 1991).

Although debtor countries are attracted by the possibility to buy back their own debt instead of using the same money to pay interest, academics and experts concluded that ‘it is inadvisable for countries to try to buy out some of their creditors unilaterally through voluntary swaps and buybacks’ (Bulow and Rogoff, 1988, p. 698). Other scholars subsequently investigated buybacks from a broader economic (rather than narrow financial) standpoint (Krugman, 1988, 1989; Dornbusch, 1988; Rotenberg, 1991; Acharya and Diwan, 1993; Claessens and Diwan, 1994; Coe et al., 2005; Marchesi, 2006; Baglioni, 2015). These other authors dispute Bulow and Rogoff’s conclusion that although ‘buybacks stimulate investment they still are not likely to benefit debtors’ because when ‘creditors believe that the buyback will stimulate growth, they will demand a higher price in order to sell’ (Bulow and Rogoff, 1991, p. 1219). The consensus of this stream of literature is that the increase in the market price caused by bond buyback could be compensated by the following considerations. First, reducing the debt overhang effect. Second, reducing the overall cost of debt and future bargaining costs. Third, reducing the default costs and the probability of default. Fourth, used as a signal of country’s willingness to invest, thus having mutual benefits for debtors as well as their creditors.
About half of OECD countries\(^5\) have undertaken debt buyback operations since the 1990s but the academic literature has remained predominantly focused on buybacks in developing countries. Most developed country research previously focused on the USA and UK, giving an account of the impact of the maturity profile of debt that often caused cash flow problems for the governments. The results of these studies suggest the buyback structure may be generally successful in minimizing the interest expense rather than the buyback costs (Coe et al., 2005; Han et al., 2007). As regards Europe, a 1996 Bank of Italy survey found that the percentage of repurchased debt ranged from 0.3% in Italy, to 12% in Ireland (Marchesi, 2006). More recently, the Troika required a buyback by the Greek government in 2012 (Claessens and Dell’Ariccia, 2011; Baglioni, 2015). This ‘set a new world record in terms of restructured debt volume and aggregate creditor losses, easily surpassing previous high-water marks such as the default and restructuring of Argentina in 2001–2005’ and it could be considered ‘the first major debt restructuring in Europe since the defaults preceding World War II’ (Zettelmeyer et al., 2013, pp. 515-516). The Greek government used €11.3 billion\(^6\) to retire €31.9 billion of Hellenic Republic’s bonds, reducing the debt by €20.6 billion. However, during the period May to December the average price rose from 0.13-0.18 cents trading range up to 33.8 cents per Euro (Xafa, 2013; Zettelmeyer et al., 2013).

Table 1. Increase in prices due to bond buyback

| Source: 1987 Bolivian buyback data has been retrieved from Bulow and Rogoff, 1988; 2012 Greek buyback data has been retrieved from Xafa, 2013.

Table 1 reports consequences of the increase in prices due to bond buyback. It is interesting how the same practice applied to developing and developed countries leads to the same result: in fact, the Greek and Bolivian cases are subject to the same limitation, namely

\(^5\) Australia, Austria, Belgium, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, Netherlands, New Zealand, Norway, Spain, Sweden, United Kingdom, United States.

\(^6\) Funded by the European Financial Stability Facility (EFSF).
that the higher bond prices induced by the buyback significantly reduces the financial benefits of this operation.

Notwithstanding the limitations identified in literature, bond buyback has been regarded by the finance ministers within the Eurozone countries as an important success that, together with the other initiatives agreed (i.e. austerity programme), may put the Greek public finances on a sustainable route by leading to a substantial reduction of the Greek debt-to-GDP ratio (Eurogroup Statement on Greece 13th December, 2012). In fact, the support of the European Financial Stability Facility (EFSF) needed for that buyback operation was conditional upon implementation of the hardest austerity measures seen so far in the EU. This means that the Greek government buyback should be researched using a much broader analytical framework that extends beyond the conventional narrow technical and financial issues to also consider socioeconomic and politico-constitutional (including human rights) parameters. This much more holistic framework should also be adopted by other countries whose debts are as high a proportion of GDP as was the case for Greece at the start of its Troika bailouts, including Italy.

Although Italy’s debt/GDP ratio in 2015 was the same as it was for Greece at the first bailout (around 134%, Eurostat data retrieved on 16-02-2018) a bailout by the Troika and/or the EFSF would not be financially feasible, because the absolute amount of debt to repurchase is far greater than of Greece (€2173.3 billion and €311.7 billion respectively). Moreover, the stagnation of Italy’s GDP over the last few years means that there seems little chance of fast economic growth reducing the public sector debt to GDP ratio. Since a default on debt by the Italian government could be catastrophic for the Euro, for European banks holding much of Italian government debt and for the Eurozone economy this suggests that the focus will continue to be on implementation of austerity measures by means of contractionary fiscal policy measures. Hence, all possible options for reduction of Italy’s debt in both absolute and proportionate terms must be explored, bond buyback included.
This broader austerity context challenges Bulow and Rogoff’s recommendation that highly indebted countries should not waste resources in buybacks because creditors will reap the efficiency gains. That and the other previous literature did not address the Fiscal Compact because it did not then exist. In this new EU scenario, bond buyback could become seen as very effective even if municipalities and governments do not make direct financial savings from a buyback deal itself, including when it involves some direct costs.

3. Research Methodology

Since this EU-wide austerity context was not the reason for the bond buybacks considered in the literature reviewed above, the three main research questions cannot be addressed by recourse to EU-wide quantitative data because member states have not yet systematically engaged in bond buyback and so sufficient data are not yet available. This dearth of available and relevant data means that empirical research seeking to answer the three research questions must be initially small-scale, embedded in qualitative research methods specifically designed to take account of the EU-wide fiscal consolidation. This paper utilizes a qualitative exploratory case study methodology (Yin, 2011) to analyse the 2015 Italian regional government bond buyback within the holistic framework outlined above. The case study investigates the experience of regional municipalities buying back their own debt, as well as the coordinating role played by the Ministry of Economy and Finance (MEF).

The analysis covered relevant national and regional legislation (regional laws sometimes diverge), regional council decisions, official documentation and press releases issued by the MEF. In addition, to integrate and understand the information gathered throughout the preliminary documentary analysis, a series of interviews subsequently took place during 2016 including a long-lasting in-depth face-to-face interview with the managing director of the operation at MEF. That interview lasted 105 minutes, the intention being to verify the hypothesis expressed in the research questions namely that bond buybacks could reduce negative externalities associated with complying with Fiscal Compact and SGP debt.
reduction austerity rules without being solely reliant upon spending cuts and/or tax increases. Thereafter, a series of interviews via email took place with the heads of finance in the 6 involved regions\(^7\) with the aim of understanding the reasons underpinning their participation at the bond buyback.

4. The 2015 Italian regional government bond buyback

Consistent with the hypothesis just stated, the 2015 Italian regional bond buyback is an example of debt management operations that did not require a budget surplus, spending cuts or tax increases. Instead, it utilised an accounting engineering approach with a neutral or even beneficial effect on the national government budget. The key factor for financing the buyback is the positive evaluation of derivatives signed by regional governments in order to hedge the underlying debt. The bonds involved in this buyback operation were bullet bonds\(^8\) hedged both by sinking funds and by amortizing swaps to guarantee that sufficient money would be available to redeem the bond upon maturity, as laid down by Local Government financial law No. 448/2001. Sinking funds allow the issuer to repay the principal of the bullet bond through a repayment plan rather than in full on the maturity date\(^9\). Amortizing swaps, allow interest rate swaps (e.g. from fixed to floating) during a bond’s repayment plan (Lagna, 2015). By using these derivatives, the bond’s notional principal amount decreases over time mitigating the risks for the Regions that issued bullet bonds; since the derivatives have to hedge an increasingly small part of these bonds, by contrast, their mark-to-market\(^{10}\) tends to increase over time.

These derivatives have an important hedging role but their use has not always been appropriate (Corte dei Conti, 2015). Accordingly, their use was prohibited\(^{11}\) for local

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\(^7\) Italy has 20 regional governments.

\(^8\) Debt instruments whose entire value is paid to the bondholder on the date of its maturity.

\(^9\) Note that the underlying obligation for the Region remains a bullet bond.

\(^{10}\) The mark-to-market is fair value accounting method bases the estimation of an asset’s value on its market price. It is envisaged by the IAS 39 for the evaluation of derivatives contracts (Zorzetto, 2018).

\(^{11}\) Law No. 133/2008 imposed a temporary ban on derivatives, subsequently followed by the absolute ban of Law No. 147/2013.
governments and so regions are no longer able to renegotiate their bonds because derivatives have to be terminated simultaneously with the underlying debt. As an exception to that prohibition, Article 45 of Decree-Law No. 66/2014 subsequently allowed regions to manage derivatives and thus buy back bonds with positive mark-to-market values, this determining the choice of bonds to buyback.

Furthermore, derivatives play an important role even from the perspective of bondholders. Around 90% of them were foreign financial institutions, mostly large German and French banks (or Italian branches of those institutions), which purchased bonds issued by regions and used derivatives to swap their interest rates from fixed to floating. Since bondholders allocated the bonds in held-to-maturity portfolios, according to IAS and IFRS principles, these titles have been accounted for at amortized historical cost by using the ‘spread at issuance’ method. This is a methodology to assess the value of a bond with the mid-swap used as reference rate plus a given number of basis points (i.e. the spread), which make it possible to compare fixed income assets even denominated in different currencies. This means that the relevant value pertaining to buyback is not the issue price but, instead, the values recorded on banks’ books, corresponding to the mid-swap value calculated at the issuance plus N basis points. However, bondholders were required to withstand a loss equal to 1% of the value of bonds recorded on their balance-sheet: that is the condition to be eligible for the buyback.

Whilst proportionately small, this 1% loss imposed on bondholders is substantial in monetary terms given the high values of bonds possessed, amounting to hundreds of millions of Euros. So why did bondholders sell at a loss? One reason could be the precarious financial condition of some of those players. For example, in 2012 the European Commission approved a resolution plan for the Dexia Group resulting in a run-off procedure. Although not directly involved in the run-off procedure the other bondholders may have gone through a critical financial phase or radical corporate restructuring, in turn leading to portfolios being reconfigured. Changes in the accounting strategy are due to the Basel agreement, which
required banks to meet the minimum capital requirements intended to mitigate various risks, and so they may have sold bonds to minimise the collaterals reducing their exposure to Eurozone peripheral debt, replacing it with German sovereign debt (Buch et al., 2016). However, it can be difficult to assess the exposure of financiers to financial losses “because it is affected by a broad range of activities such as lending, underwriting, trading with derivatives” (Asenova and Beck, 2003, p. 196).

The buyback procedure is depicted in Figure 1. After the bullet bond issue (point ①), the region signs sinking funds and amortizing swaps as required by regulations for municipal debt operations (point ②). Bondholders purchase the bonds recording them in their account books at historical values computed using the spread-at-issuance method, and swap the fixed rate cash flows into floating rate cash flows (point ③). Whenever in Figure 1 ②+③<① buyback guarants debt reduction. In fact, the overall cost falls only when the mark-to-market is positive and so the level of public debt is reduced\textsuperscript{12}. Only if the above conditions are met can regions buyback their bonds (point ④).

![Figure 1. The regional government buyback scheme](INSERT FIGURE 1 HERE)

*Source:* authors’ reconstruction of the links among buyback participants.

### 5. Buyback’s quantitative and qualitative aspects.

Through these transactions, €3.7 billion of sub-sovereign bonds have been traded, and €4.9 billion have been spent to buy them back. Table 2 shows that the amount paid to bondholders is much higher than the bonds’ face value (equivalent to the budgeted historical cost applying the spread-at-issuance method). The first column reveals the spreads (i.e. N basis

\textsuperscript{12} On the contrary, with negative mark-to-market the overall cost is increased and so the level of public debt is increased.
points over mid-swap) charged over the mid-swap rate by the bondholders. The figures in the second column represent the acquisition prices calculated as the cash price equivalent (discounted at 1%) to the mid-swap plus the spread. By multiplying the acquisition prices by the repurchased amounts, the cost of the buyback is determined, as given in the fourth column (values expressed in millions of Euros).

Table 2. Details of repurchased bonds

[INSERT TABLE 2 HERE]

Source: Ministry of Economy and Finance secondary data.

The operation differentiates between financial flows and stock of debt. Analysing the financial flows, the bond redemption has resulted in a €4.9 billion outflow that has been financed by two means. First, a €2.8 billion mortgage and a €0.4 billion subsidy donated by the MEF. Second, by monetizing the derivatives with positive mark-to-market that provided the remaining €1.7 billion, equal to the 34% of the sum paid to the bondholder. The mortgage, reduces the future financial outflows because its 2.26% fixed rate of interest is less than the expected rates on bullet bonds coupled with derivatives. The MEF was in a position to grant a 2.26% fixed rate mortgage because during 2014 it raised funds at an average rate of 1.35%, thereby generating a flow of income for the State. This net revenue stream financed a series of measures in the field of competitiveness and social justice (point ④ in Figure 1). In that sense, the beneficial effects of the operation went far beyond the buyback savings.

As regards the stock of debt, by replacing bullet bonds with the mortgage the subsovereign debt fell by €0.9 billion, corresponding to 1.38% of outstanding regional debt and 22.78% of the bonds’ face value. This fall resulted from debt management and use of creative accounting to reduce the costs of servicing public sector debt and the derivatives. The subsidy

13 The initial budget for bond buyback amounted to €8.7 billion because it also envisaged repurchase of the debt of Abruzzo, Piedmont and Val d’Aosta. However, unfavourable assessment of their derivatives resulted in about €5 billion remaining unspent.
is recorded in a special account separated from the State’s budget, meaning it is not listed as a
liability. On the contrary, it is effectively a debt reduction corresponding to 0.02% of the overall
public debt (€2232 billion). Table 3 shows the operation is neutral for national government
because assets and liabilities are balanced. The percentages set out in the table 3 relate to
National and Regional outstanding debt relatively.

Table 3. Impact of bond buyback

[INSERT TABLE 3 HERE]

Source: authors’ elaboration of Ministry of Economy and Finance secondary data.

Responses to the interviews made clear that bonds issued between 1998 and 2006
constituted an effective funding method because the conditions offered by capital market were
better than the mortgage market. This resulted from greater liquidity and less risk of bonds
compared to other funding methods. Indeed, Region Lombardy’s rating was higher than that
of Italy’s national government. Nevertheless, they proved to be vulnerable to changes in the
market. In particular, the structure of bullet bonds exposed the regions to excessive risks until
maturity of the bond. For example, in one particular case, it was revealed that there were up to
5 derivatives covering a single bond. Significant annual costs have been the effect of this
variety: in one particular case it has been estimated as about 12% per year of the underlying
bond. The derivatives’ riskiness has been emphasised by the Court of Auditors, which focused
especially upon the collateral structure and the composition of sinking funds. Other risk factors
are attributable to “extremely dangerous” (quoting the interviewee) legal disputes.

For these reasons, regions were enthusiastic about the repurchase operation: the
“substantial” (quoting respondents) regional public debt relief and the elimination of risks
related to the bullet bond structure were the main reasons prompting regions to participate.
Furthermore, the returned questionnaires revealed that closure of derivatives financed up to
50% of the total cost of the buyback.
Referring to the three research questions stated in the introduction, the Italian experience makes clear that feasible measures are available for EU Member States to buyback bonds to reduce their levels of outstanding debt.

‘It is important to do something to relieve public sector debt, and we need constantly to devise solutions aimed at reducing its amount. This provision is still working, consequently other bond buyback cannot be excluded; but if it does not occur the unspent funding will be allocated to the debt sinking fund, since the rationale of this provision is debt reduction.’ [name of interviewee withheld for anonymity]

Clearly, this option to finance bond buybacks is both feasible and consistent with the EU fiscal framework, also capable of reducing total public debt and debt servicing costs which, in turn, reduced to some extent the need for austerity-induced cutbacks in public spending and tax increases.

‘The great strength of this operation is that it made sense not just per se, but it has also allowed a series of measures to promote competitiveness and social justice laid down in the Decree Law No. 66/2014.’ [name withheld for anonymity]

These measures include reduction of the tax wedge on labour (Art. 1), reduction of taxes for productive activities (Art. 2), and allocation of additional resources to a tax-free zone in southern Italy (Art. 22 bis). These are being financed, at least partially, through the flow of revenues resulting from the aforementioned difference in interest rates on State funding and the Regions’ mortgage. Thus bond buybacks may reduce the likelihood and extent of adverse economic and social impacts of austerity programmes and/or financial penalties imposed for failure to abide by the progressive debt reduction schedule of the Fiscal Compact.

‘In my opinion, the high public debt level is one of the burning issues for Italian public financial management, not in absolute terms but rather with respect to the debt/GDP
ratio; therefore, to reduce the debt volume compared to GDP is a decisive factor.’ [name withheld for anonymity]

6. Concluding thoughts

Although its results are limited to a single country case and the amounts involved are relatively small, the Italian bond buyback case demonstrates how regional governments can engage in debt reduction, helping national governments observe EU rules whilst avoiding in-tandem cuts in public services and/or raising taxes to generate budget surpluses. Inclusion of sub-national debt in Fiscal Compact rules in 2020 will enhance the supportive role of regional governments in the management of national debt. Bond buybacks will therefore become even more fit-for-purpose as one particular approach to EU fiscal consolidation.

Bond buybacks are also compatible with other fiscal rules, including the UK’s Prudential Borrowing Framework (PBF) that requires municipalities to earmark to repayment of the borrowed sums the budgetary savings arising from invest-to-save projects. For example, a local government may borrow to finance thermal insulation of its buildings (e.g. schools) and the resulting savings on fuel costs thereafter relinquish the associated debt. Buyback of bonds will be advantageous if interest rates fall subsequent to their issue, thereby reducing the costs of that PBF debt and the risks that budgetary savings will not be sufficient to repay the original (higher interest rate) bond issue.

Favourable financial conditions played a key role in facilitating the Italian regional bond buyback of 2015 (i.e. falling interest rates, presence of derivatives and bondholders in financial difficulties). However, judging the success of buyback is not simply a financial matter and the financial market cannot assess its overall effectiveness. Instead, the role of the market is to provide the conditions for buyback to operate.

The Bulow and Rogoff highly negative boondoggle judgement in respect of developing countries’ bond buyback programmes adopts such a narrowly technical financial perspective: it is not transferable to EU Member States that, individually and in concert, must observe the
SGP and Fiscal Compact or otherwise incur substantial penalties. Bond buyback may also avoid profoundly adverse austerity-driven consequences whilst also improving the efficiency of their debt management policy and practice, as made clear above. Hence, highly indebted EU countries would not necessarily waste resources by engaging in bond buyback and so its boondoggle characterisation would be invalid.

In fact, a range of both financially and politically feasible options is available to Member States to finance buybacks of their bonds, which in some relatively small way would support efforts to reduce their levels of outstanding debt in order to achieve the progressive reduction required by the Fiscal Compact. For example, by deploying the unspent funding of €5 billion provided for in Art. 45 (see footnote 13), the Italian sub-sovereign buyback initiative could be extended to include buyback of bullet bonds issued by the whole sub-governmental level, not just the regions. Rather than cover all such bonds, it could apply only to those with more than 5 years residual life (since this is the legislative term of office of Italian governments) which amount to about €9.5 billion. This could be easily undertaken because the total amount is restricted to only a few bonds. For instance, Piedmont Region has €1.8 billion, Milan city €1.6 billion, Rome city €1.4 billion - totalling €4.8 billion\(^\text{14}\). The cumulative debt of these institutions is more than €24 billion, and a buyback would work for about one fifth of this amount.

When considering buyback, countries have to consider a range of contextual factors, including how bond buyback can be financed, who holds those bonds (e.g. pension and insurance funds, domestic or foreign banks, investment trusts, financial speculators and other investors) and for what purposes they hold bonds, the allocation of bonds between levels of government, the terms of bonds (short, medium, long) etc. Countries must also consider possible future developments, including the potential for bond buyback to be affected by expansion or contraction of ECB quantitative easing, ratings agencies changing their risk

\(^{14}\) MEF secondary data.
grading of economies and governments, any conditions set on assistance from the IMF and
other funding bodies that could restrict buyback’s effectiveness etc. All these parameters must
be considered in coming to a decision whether buyback is sustainable in EU member states.

Acknowledgments

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Sub-sovereign bond buyback: fit for purpose or in the Euroarea: a boondoggle for the public finances governments?

In any organisation a considerable debt overhang (i.e. when the existing debt is so great as to undermine future financing operations) reduces the incentives for investment and so the reduction of debt incurred by public authorities has assumed a key role throughout the public debate in the vast majority of countries (Claessens and Dell’Ariccia, 2011). In the EU austerity context, however, to achieve any public debt reduction may be challenging because this may require a budget surplus. Increases in an individual nation’s central bank money supply¹ are not possible in the Euroarea and governments could achieve this surplus in their fiscal balance only by increasing taxes and/or reducing expenditures, thereby though depressing the aggregate demand. In other words, debt management approaches would require intensification of the austerity programme in the short term. That might cause GDP to fall and so there is no guarantee that debt reductions would reduce (and so relieve the pressure on) the debt/GDP ratio.

An alternative approach is to use a Bond buyback when the value on the financial markets of the outstanding debt of a sovereign borrower quotes significantly below its face value, which involves its retirement before its official maturity against a cash payment (World Bank, 2015). In this case, a government may try to improve the financial position of its public sector by purchasing some of its own debt through a buyback transaction (Baglioni, 2015). Assuming ceteris paribus, repurchasing bonds in advance of their maturity reduces the costs governments face in servicing their debt, their payment of interest on the remaining stock of

¹ At the supranational level the European Central Bank’s programme of Quantitative Easing was in place at the time of writing.
unredeemed bonds decreasing in line with the reduction of the stock of debt (Marchesi, 2006). Different from other debt reduction schemes, buybacks do not necessarily require budget surpluses to be achieved because they may be also financed through resources provided by external actors (e.g. IMF, World Bank, the Troika) or through debt management practices with neutral budgetary impact.

The existing literature on bond buyback largely focuses on the first type but, regrettably, even this funding method exacerbates austerity as result of the collaterals required by the financial donors: an example of this is the Greek bailout. Therefore, this paper provides new evidence that bond buyback can also be funded through proper use of creative accounting practices without the need for a budget surplus or greater austerity.

Buybacks have previously been analysed within an economic and financial framework, whereas this paper adopts a wider analytical framework that posits that the balance between the pros and cons of buyback depends upon the opportunity cost of austerity to citizens, not only to the financial market. That opportunity cost is what has to be foregone by using public money to buyback bonds instead of using it to finance improved public services. Even though the literature showed that creditors benefited more than debtors from bond buyback in previous decades (Bulow and Rogoff, 1988, 1991), this is not necessarily the case in the post-2009 fiscal crisis era, in which there were other reasons for countries to engage in buyback that could not be foreseen by that previous research. The EU’s Fiscal Compact provides the new context for researching the distribution of benefits between debtors and creditors of bond buyback. For heavily indebted EU countries there are profound benefits to be gained by avoiding the very considerable financial penalties of failing to conform with the Fiscal Compact’s debt reduction schedule, perhaps also reducing the possibility of leaving the EU by avoiding the coming to power of its internal anti-austerity/anti-EU political parties. These relatively new European fiscal rules and austerity-engendered socio-politico dimensions provide a very different analytical framework within which to study sovereign bond buybacks and whether they are fit for purpose.
This paper will try to fill this gap in the literature by considering three research questions. First, whether member states may be able to engage in bond buybacks to avoid or otherwise minimise the negative externalities (i.e. adverse social and economic effects) resulting from the EU-wide public sector austerity programme. Second, the options available to member states to finance buybacks of their bonds and the feasibility of those measures. Third, whether bond buybacks could actually help member states reduce their levels of outstanding governmental debt sufficiently in order for them to achieve the progressive debt reduction required by the Fiscal Compact and, more generally, comply with Stability and Growth Pact (SGP) rules without being solely reliant upon spending cuts and/or tax increases.

This may be possible under a debt management perspective and using creative accounting practices. In fact, although the EU is relying absolutely counting on macroeconomic control tools (such as debt ceilings and balanced budgets), at the microeconomic level, it should be pointed out that ‘efficient management of the public debt portfolio, lower hedging costs, and greater ability to absorb exogenous shocks could be facilitated by debt management practices that take into account the government’s overall balance-sheet structure’ (IMF, 2014, p. 14). In this regard, both the directive 2011/85/EU (the Budgetary Frameworks Directive) and the IPSASs (the internationally recognized accounting standards for the public sector) agree that reliable public accounting practices are a precondition to achieve sustainability of public finance, and to contribute to the more accurate public debt management and fiscal consolidation (IFAC, 2017a, 2017b).

Answering the three research questions, the paper focuses upon analysis of the Italian regional bond buyback at the end of 2015, whose critical element relates to the characteristics of the hedging system of bullet bonds through sinking funds and amortizing swaps. When derivatives play a role in debt management, ‘accounting […] is crucial for strengthening confidence in the soundness of the government’s financial position’ (IMF, 2014, p. 18). The new analytical framework for bond buyback developed in this paper builds on this fundamental consideration and, for this reason, buyback oriented towards the EU’s
fiscal rules could become seen as very effective as an alternative to spending cuts and tax
increases.

Since the scope of this paper analyses is to be a study of the Euroarea and debt
reduction for which using an Italian case study is used to draw out results which could be
applicable to it, before detailing that case study, the paper but first provides a description of the
specific circumstances of the Euroarea and a comprehensive critical literature review on bond
buybacks.

1. Specific circumstances of The EU’s fiscal framework

The EU’s fiscal rules are still founded on both the 1992 Maastricht agreements reached at
Maastricht in 1992 (i.e. government deficits limited to 3% of GDP and public debt levels to
60%) as well as on the requirements of the Stability and Growth Pact. However, These rules have been strengthened over time because of the severe crisis which
involved the Euroarea after the unsustainable critical condition of Greece’s public accounts
was revealed. ‘The [Greek] crisis showed that it was possible to have a sovereign debt crisis in
a European Member State and that earlier concerns related to non-compliance with the Stability
and Growth Pact were pertinent and real’ (Zandstra, 2011, p. 287). The implementation of
stronger financial rules (i.e. ‘Six Pack’, ‘Fiscal Compact’ and ‘Two Pack’) became necessary
because countries underestimated the risks arising from having current expenditures greater
than tax revenues over decades (Fingland and Bailey, 2008; Bailey et al., 2014).

Most of the amendments to the European fiscal framework concern the new fiscal rules
established by the Fiscal Compact which apply to national budgets, and strengthens
the abovementioned debt and deficit limits by introducing stricter numerical rules along with
automatic correction mechanisms: of these the most significant are the debt brake\(^2\) rule and the

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\(^2\) Debt brake requires that when debt-to-GDP ratio exceeds 60%, it must be reduced by one-twentieth (5%) of
the part exceeding that amount per year.
balanced budget\textsuperscript{3} rule. Countries that meet these new numerical rules are in the ‘preventive arm’; otherwise, they are in the ‘corrective arm’. Being in the corrective arm may lead to initiation of the Excessive Deficit Procedure, which could also entail financial sanctions being imposed on EU member states. The objective of the preventive arm of the SGP is to promote sound public finances and ensure the sustainability of public finances to avoid the occurrence of excessive budget deficits - and debt - (Vade Mecum on the Stability and Growth Pact, 2016), and through which to restore economic growth conditions. However, ‘thresholds have been imposed that, if exceeded, result automatically in austerity measures. The intention has been to establish rules beyond the reach of politics and thereby to constrain the state and insulate it from democratic pressures that tend in an expansionary direction’ (McBride, 2016, p. 7).

To adhere to these new parameters ‘implies not only upwards migration of standard setting to the European level, but also the centralization of standard setting within each EU Member State’ (Heald and Hodges, 2015, p. 1009). Overriding such a control of one of the national core national government functions raises a considerable sensitive challenge for the EU and its Member States, because it effectively diminishes influences the constitutional relationship between among the state and its citizens. The ‘burden’ of austerity is borne by the general community and so, for them, whether austerity-driven fiscal policy is acceptable or not good or bad depends upon the opportunity costs they face.

Austerity is widely regarded as having led to increased inequality and injustice as a result of the reduction in state intervention. In this regard, Bracci et al. (2015) provided a detailed overview of the negative economic and social consequences of austerity measures, which are in stark contrast with the EU’s welfare model inspired by social justice, equity and solidarity (Petmesidou and Guillén, 2014). These outcomes would appear to be incompatible

\textsuperscript{3} Public budgets are ‘balanced’ when its deficit does not exceed 3% of the GDP, and when the structural deficit does not exceed the country-specific Medium-Term budgetary Objective, 0.5% if the debt-to-GDP ratio is equal to or higher than 60%, 1% if lower.
with the expectations of many countries when they joined the EU, envisaging benefits of sharing economic prosperity, national security and improved social welfare that far outweighed any possible risks.

Unsustainable debt was previously only a matter for creditors and debtors but nowadays Eurozone countries have to fulfil their debt obligations to maintain the integrity of the EU. Thereby, since the adherence to the new governance parameters implied the centralization of standard setting to the European level (Heald and Hodges, 2015), many countries became subject to Troika\textsuperscript{4} assistance programmes without which they would not have been able meet their short-term debt-repayment obligations and so would have defaulted on debt repayment (Agostino and Lapsley, 2013). However, ‘the conditions attached to each tranche of finance have included extreme austerity programmes, such that the dependent economies have experienced increased unemployment, severe economic downturns, social unrest and the migration of skilled workers’ (Cohen et al., 2015, p. 985). Thus, however, the Troika’s fiscal consolidation approach to debt management applied over such an extended period has revealed its financial, socioeconomic, constitutional and other limitations, disappointing the populace and destabilizing the political scene. Consequently, within this much broader context, assessment of the effectiveness of bond buybacks cannot rely exclusively on financial parameters. Buybacks are beneficial for highly indebted countries to the extent that they help them meet Fiscal Compact requirements, reduce the pressure on their debt-to-GDP ratios and free up financial resources for public services in the long term.

However, considering that this set of rules is applicable only to the national level, and that many European states (e.g. Spain, Italy and Germany) are characterized by several tiers of sub-sovereign issuers empowered to issue and manage their own debt, EU financial stability might not be guaranteed. Domestic stability pacts have been adopted across Europe in order to strengthen the control over local government accounts, but sometimes they went into pre-

\textsuperscript{4} The European Central Bank, European Commission and International Monetary Fund.
existing local debt regulation (Monacelli et al., 2016) leading to overlapping regulations. Therefore, the concept of sub-sovereignty refers not only to the financial autonomy of the issuer but also to the balance of powers between national and supranational rules that govern this financial autonomy. The aftermath of European fiscal rules within this framework is that regions are effectively unable to manage their debt: municipalities must now seek to reduce their levels of debt so that the national government can comply with the Fiscal Compact’s progressive debt reduction schedule.

2. Bond buyback literature review

Bulow and Rogoff (1988) studied bond buyback schemes in developing countries, critically categorising them as a ‘boondoggle benefiting a country’s creditors’ (Bulow and Rogoff, 1988, p. 676), meaning an unnecessary, wasteful or fraudulent project. This, they said, is because a rational bondholder will require a payment higher than the redemption value of the bond (or its market price) in order to sell back to the issuer. Hence, bond buyback raises the market value of the debt left outstanding, and consequently it may worsen - rather than improve - the net asset position of the sovereign (Claessens and Dell’Ariccia, 2011). For example, in 1987 Bolivia received $34 million from the IMF and World bank to buy back its sovereign bonds. The face (i.e. redemption) value of those bonds was $670 million but their market value was only six percent of that (i.e. 6 cents on the dollar) and so the market value was just $40.2 million. That being the case, Bolivia was supposed to be able to repurchase around 85% of its total sovereign debt. However, the 1988 buyback price raised up to 11 cents on the dollar and so Bolivia was able to buyback only 46% (Krugman, 1988, 1989; Bulow and Rogoff, 1988, 1991).

Although debtor countries are attracted by the possibility to buy back their own debt instead of using the same money to pay interest, academics and experts concluded that ‘it is inadvisable for countries to try to buy out some of their creditors unilaterally through voluntary swaps and buybacks’ (Bulow and Rogoff, 1988, p. 698). Other scholars subsequently
investigated buybacks from a broader economic (rather than narrow financial) standpoint (Krugman, 1988, 1989; Dornbusch, 1988; Rotenberg, 1991; Acharya and Diwan, 1993; Claessens and Diwan, 1994; Coe et al., 2005; Marchesi, 2006; Baglioni, 2015). These other authors dispute Bulow and Rogoff’s conclusion that although ‘buybacks stimulate investment they still are not likely to benefit debtors’ because when ‘creditors believe that the buyback will stimulate growth, they will demand a higher price in order to sell’ (Bulow and Rogoff, 1991, p. 1219). The consensus of this stream of literature is that the increase in the market price caused by bond buyback could be compensated by the following considerations. First, reducing the debt overhang effect. Second, reducing the overall cost of debt and future bargaining costs. Third, reducing the default costs and the probability of default. Fourth, used as a signal of country’s willingness to invest, thus having mutual benefits for debtors as well as their creditors.

About half of OECD countries\(^5\) have undertaken debt buyback operations since the 1990s but the academic literature has remained predominantly focused on buybacks in developing countries. Most developed country research previously focused on the USA and UK, giving an account of the impact of the maturity profile of debt that often caused cash flow problems for the governments. The results of these studies that suggest the buyback structure may be generally successful in minimizing the interest expense rather than the buyback costs (Coe et al., 2005; Han et al., 2007). As regards to Europe, a 1996 Bank of Italy survey by the Bank of Italy found that the percentage of repurchased debt ranged from 0.3% in Italy, to 12% in Ireland (Marchesi, 2006). More recently, the Troika required a buyback by the Greek government in 2012 (Claessens and Dell’Ariccia, 2011; Baglioni, 2015). This ‘set a new world record in terms of restructured debt volume and aggregate creditor losses, easily surpassing previous high-water marks such as the default and restructuring of Argentina in 2001–2005’ and it could be considered ‘the first major debt restructuring in Europe since the defaults

\(^5\) Australia, Austria, Belgium, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, Netherlands, New Zealand, Norway, Spain, Sweden, United Kingdom, United States.
preceding World War II’ (Zettelmeyer et al., 2013, pp. 515-516). The Greek government used €11.3 billion\(^6\) to retire €31.9 billion of Hellenic Republic’s bonds, reducing the debt by €20.6 billion. However, during the period May to December the average price rose from 0.13-0.18 cents trading range up to 33.8 cents per Euro (Xafa, 2013; Zettelmeyer et al., 2013).

**Table 1. Increase in prices due to bond buyback**

[INSERT TABLE 1 HERE]

*Source: 1987 Bolivian buyback data has been retrieved from Bulow and Rogoff, 1988; 2012 Greek buyback data has been retrieved from Xafa, 2013.*

Table 1 reports consequences of the increase in prices due to bond buyback. It is interesting how the same practice applied to developing and developed countries leads to the same result: in fact, the Greek and Bolivian cases are subject to the same limitation, namely that the higher bond prices induced by the buyback significantly reduces the financial benefits of this operation.

Notwithstanding the limitations identified in literature, bond buyback has been regarded by the finance ministers within the Eurozone countries as an important success that, together with the other initiatives agreed (i.e. austerity programme), may put the Greek public finances on a sustainable route by leading to a substantial reduction of the Greek debt-to-GDP ratio (Eurogroup Statement on Greece 13\(^{rd}\) December, 2012). In fact, the support of the European Financial Stability Facility (EFSF) needed for that buyback operation was conditional upon implementation of the hardest austerity measures seen so far in the EU. This means that the Greek government buyback should be researched using a much broader analytical framework that extends beyond the conventional narrow technical and financial issues to also consider socioeconomic and politico-constitutional (including human rights)

\(^6\) Funded by the European Financial Stability Facility (EFSF).
parameters. This much more holistic framework should also be adopted by other countries whose debts are as high a proportion of GDP as was the case for Greece at the start of its Troika bailouts, including Italy.

Although Italy’s debt/GDP ratio in 2015 was the same as it was for Greece at the first bailout (around 134%, Eurostat data retrieved on 16-02-2018) a bailout by the Troika and/or the EFSF would not be financially feasible, because the absolute amount of debt to repurchase is far greater than of Greece (€2173.3 billion and €311.7 billion respectively). Moreover, the stagnation of Italy’s GDP over the last few years means that there seems little chance of fast economic growth reducing the public sector debt to GDP ratio. Since a default on debt by the Italian government could be catastrophic for the Euro, for European banks holding much of Italian government debt and for the Eurozone economy this suggests that the focus will continue to be on implementation of austerity measures by means of contractionary fiscal policy measures. Hence, all possible options for reduction of Italy’s debt in both absolute and proportionate terms must be explored, bond buyback included.

This broader austerity context challenges Bulow and Rogoff’s recommendation that highly indebted countries should not waste resources in buybacks because creditors will reap the efficiency gains. That and the other previous literature did not address the Fiscal Compact because it did not then exist. In this new EU scenario, bond buyback could become seen as very effective even if municipalities and governments do not make direct financial savings from a buyback deal itself, including when it involves some direct costs.

3. Research Methodology

Since this EU-wide austerity context was not the reason for the bond buybacks considered in the literature reviewed above, the three main research questions cannot be addressed by recourse to EU-wide quantitative data because member states have not yet systematically engaged in bond buyback and so sufficient data are not yet available. This dearth of available and relevant data means that empirical research seeking to answer the three
research questions must be initially small-scale, embedded in qualitative research methods specifically designed to take account of the EU-wide fiscal consolidation. This paper utilizes a qualitative exploratory case study methodology (Yin, 2011) to analyse the 2015 Italian regional government bond buyback within the holistic framework outlined above. The case study investigates the experience of regional municipalities buying back their own debt, as well as the coordinating role played by the Ministry of Economy and Finance (MEF).

The analysis covered relevant national and regional legislation (regional laws sometimes diverge), regional council decisions, official documentation and press releases issued by the MEF. In addition, to integrate and understand the information gathered throughout the preliminary documentary analysis, a series of interviews subsequently took place during 2016 including a long-lasting in-depth face-to-face interview with the managing director of the operation at MEF. The MEF interview lasted 105 minutes, the intention being to verify the hypothesis expressed in the research questions namely that bond buybacks could reduce negative externalities associated with complying with Fiscal Compact and SGP debt reduction austerity rules without being solely reliant upon spending cuts and/or tax increases. Thereafter, a series of interviews via email took place with the heads of finance in the 6 involved regions of which Italy has 20, with the aim of understanding the reasons underpinning their participation at the bond buyback.

4. The 2015 Italian regional government bond buyback

Consistent with the hypothesis just stated, the 2015 Italian regional bond buyback is an example of debt management operations that did not require a budget surplus, involve cutbacks in public spending cuts or and tax increases for a country within the Euroarea. The novelty of this buyback approach is that it does not necessarily require a budget surplus or tightening austerity measures to be undertaken. Instead, it utilised adopts an accounting

7 Italy has 20 regional governments.
engineering approach with whose effect on the national government budget is neutral or even beneficial effect on the national government budget. The key factor for financing however, to finance the buyback of regional bonds is subject to is the positive evaluation of derivatives signed by regional governments in order to hedge the underlying debt, that is the key factor of this repurchase operation. The bonds involved in this buyback operation were bullet bonds8 hedged both by sinking funds and by amortizing swaps to guarantee that sufficient money would be available to redeem the bond upon maturity, as laid down by Local Government financial law No. 448/2001. Sinking funds allow the issuer to repay the principal of the bullet bond through a repayment plan rather than in full on the maturity date9. Amortizing swaps, allow interest rate swaps (e.g. from fixed to floating) during a bond’s repayment plan (Lagna, 2015). By using these derivatives, the bond’s notional principal amount decreases over time mitigating the risks for the Regions that issued bullet bonds; since the derivatives have to hedge an increasingly small part of these bonds, by contrast, their mark-to-market10 tends to increase over time.

These derivatives have an important hedging role but their use has not always been appropriate (Corte dei Conti, 2015). Accordingly, their use was prohibited11 for local governments and so regions are no longer able to renegotiate their bonds because derivatives have to be terminated simultaneously with the underlying debt. As an exception to that prohibition, Article 45 of Decree-Law No. 66/2014 subsequently allowed regions to manage derivatives and thus buy back bonds with positive mark-to-market values, this determining the choice of bonds to buyback.

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8 Debt instruments whose entire value is paid to the bondholder on the date of its maturity.
9 Note that the underlying obligation for the Region remains a bullet bond.
10 The mark-to-market is fair value accounting method bases the estimation of an asset’s value on its market price. It is envisaged by the IAS 39 for the evaluation of derivatives contracts (Zorzetto, 2018).
11 Law No. 133/2008 imposed a temporary ban on derivatives, subsequently followed by the absolute ban of Law No. 147/2013.
Furthermore, derivatives play an important role even from the perspective of bondholders (point ③ in Figure 1): in fact, a. Around 90% of them were foreign financial institutions, mostly large German and French banks (or Italian branches of those institutions), which purchased the bonds issued by regions and used derivatives to swap the nature of their interest rates from fixed to floating. Since bondholders allocated the bonds in held-to-maturity portfolios, according to IAS and IFRS principles, these titles have been accounted for at amortized historical cost by using the ‘spread at issuance’ method. This is a methodology to assess the value of a bond with the mid-swap used as reference rate plus a given number of basis points (i.e. the spread), which make it possible to compare fixed income assets even denominated in different currencies. This means that the relevant value pertaining to buyback is not the issue price but, instead, the values recorded on banks’ books, corresponding to the mid-swap value calculated at the issuance plus N basis points.

Therefore, during the process of price fixing the impact of derivatives on the budgets of both the parties was taken into account. On the one hand However, bondholders were required to withstand a loss equal to 1% of the value of bonds recorded on their balance-sheet: that is the (condition to be eligible for the buyback).

Whilst proportionately small, this 1% loss imposed on bondholders is substantial in monetary terms given the high values of bonds possessed, amounting to hundreds of millions of Euros. So why did bondholders sell at a loss? One reason was the precarious financial condition of some of those players, some of which have been receiving specific attention from the European Commission. For example, in 2012 the European Commission approved a resolution plan for the Dexia Group resulting in a run-off procedure. Although not directly involved in the run-off procedure the other bondholders may have gone through a critical financial phase or radical corporate restructuring, in turn leading to portfolios being reconfigured. Changes in the accounting strategy are due to the Basel agreement, which required banks to meet the minimum capital requirements intended to mitigate various risks, and so they may have sold bonds to minimise the collaterals reducing their exposure to
Eurozone peripheral debt, replacing it with German sovereign debt (Buch et al., 2016). However, it can be difficult to assess the exposure of financiers to financial losses “because it is affected by a broad range of activities such as lending, underwriting, trading with derivatives” (Asenova and Beck, 2003, p. 196).

The buyback procedure is depicted in Figure 1. After the bullet bond issue (point $\circled{1}$), the region signs sinking funds and amortizing swaps as required by regulations for municipal debt operations (point $\circled{2}$). Bondholders purchase the bonds recording them in their account books at historical values computed using the spread-at-issuance method, and swap the fixed rate cash flows into floating rate cash flows (point $\circled{3}$). Whenever in Figure 1 $\circled{2}+\circled{3}<\circled{1}$ buyback guarants debt reduction. In fact, the overall cost falls only when the mark-to-market is positive and so the level of public debt is reduced$^{12}$. Only if the above conditions are met can regions buyback their bonds (point $\circled{4}$).

Figure 1. The regional government buyback scheme

Source: authors’ reconstruction of the links among buyback participants.

5. Buyback’s quantitative and qualitative aspects.

Through these transactions, €3.7 billion of sub-sovereign bonds have been traded, and €4.9 billion have been spent to buy them back. Table 2 shows that the amount paid to bondholders is much higher than the bonds’ face value (equivalent to the budgeted historical cost applying the spread-at-issuance method). The first column reveals the spreads (i.e. N basis points over mid-swap) charged over the mid-swap rate by the bondholders. The figures in the second column represent the acquisition prices calculated as the cash price equivalent

$^{12}$ On the contrary, with negative mark-to-market the overall cost is increased and so the level of public debt is increased.
(discounted at 1%) to the mid-swap plus the spread. By multiplying the acquisition prices by
the repurchased amounts, the cost of the buyback is determined, as given in the fourth column
(values expressed in millions of Euros).

Table 2. Details of repurchased bonds

[INSERT TABLE 2 HERE]

Source: Ministry of Economy and Finance secondary data.

The operation differentiates between financial flows and stock of debt. Analysing the
financial flows, the bond redemption has resulted in a €4.9 billion outflow that has been
financed by two means. First, a €2.8 billion mortgage and a €0.4 billion subsidy donated by the
MEF. Second, by monetizing the derivatives with positive mark-to-market that provided the
remaining €1.7 billion, equal to the 34% of the sum paid to the bondholder. The mortgage,
reduces the future financial outflows because its 2.26% fixed rate of interest is less than the
expected rates on bullet bonds coupled with derivatives. The MEF was in a position to grant a
2.26% fixed rate mortgage because during 2014 it raised funds at an average rate of 1.35%,
thereby generating a flow of income for the State. This net revenue stream financed a series of
measures in the field of competitiveness and social justice (point ④ in Figure 1). In that sense,
the beneficial effects of the operation went far beyond the buyback savings.

As regards the stock of debt, by replacing bullet bonds with the mortgage the sub-
sovereign debt fell by €0.9 billion, corresponding to 1.38% of outstanding regional debt and
22.78% of the bonds’ face value. This fall resulted from debt management and use of creative
accounting to reduce the costs of servicing public sector debt and the derivatives. The subsidy
is recorded in a special account separated from the State’s budget, meaning it is not listed as a
liability. On the contrary, it is effectively a debt reduction corresponding to 0.02% of the overall

13 The initial budget for bond buyback amounted to €8.7 billion because it also envisaged repurchase of the debt
of Abruzzo, Piedmont and Val d’Aosta. However, unfavourable assessment of their derivatives resulted in about
€5 billion remaining unspent.
public debt (€2232 billion). Table 3 shows the operation is neutral for national government because assets and liabilities are balanced. The percentages set out in the table 3 relate to National and Regional outstanding debt relatively.

**Table 3. Impact of bond buyback**

[INSERT TABLE 3 HERE]

*Source*: authors’ elaboration of Ministry of Economy and Finance secondary data.

Considering the occurrence of complex financial instruments, and considering that the Consolidated Act of Public Debt\(^{14}\) allows debt management only for government bonds a new rule was issued to finalise the buyback of regional debt; the legal basis for this buyback has been the Art. 45 of the Decree-Law No. 66/2014. Because of the convoluted nature of this operation, its layout is graphically presented in Figure 1.

[INSERT FIGURE 1 HERE]

The use of sinking funds and amortizing swaps is required by debt regulations specifically for regional debt operations which entail the issuance of bullet bonds\(^{15}\) (point ① in Figure 1). This is in order to guarantee sufficient money would be available to redeem the bond upon maturity. These derivatives allow swapping the nature of the interest rate (e.g. fixed to float) of the repayment plan (point ② in Figure 1). However, although these derivatives have an important role in the hedging system, their presence is a burden for the entire lifespan of the debt. In fact, their fair values are calculated on the basis of the ‘mark-to-market’, which may change values on the balance-sheet when market conditions change. In particular, the

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\(^{14}\) Decree of the President of the Republic No. 398/2003.

\(^{15}\) Debt instruments whose entire value is paid to the bondholder on the date of its maturity.
mark-to-market of the derivatives signed by regions has been often negative entailing unreasonable costs (Corte dei Conti, 2015). In other words, regions may not take advantage from reductions in interest rates because derivatives crystallise the financial position, by putting an unjustified overload on public budgets. In addition, regions overused and sometimes abused\textsuperscript{16} use of financial derivatives since establishment of their financial autonomy. Considering that bonds and derivatives were tied to each other, the repurchase decision had to be taken into account together with the derivative’s mark-to-market, because these ‘hedging’ derivatives have to be terminated simultaneously with the underlying bullet bonds, meaning that the final cost reflects the bond repurchase cost and the derivative’s mark-to-market value.

Furthermore, derivatives play an important role even from the perspective of bondholders (point \textsuperscript{3} in Figure 1); in fact, around 90\% of them were foreign financial institutions, mostly large German and French banks (or Italian branches of those institutions), which purchased the bond issued by regions and used derivatives to swap the nature of their interest rate from fixed to floating. Since bondholders allocated the bonds in held-to-maturity portfolios, according to IAS and IFRS principles, these titles have been accounted for at amortized historical cost by using the ‘spread at issuance’ method. This is a methodology to assess the value of a bond with the mid-swap used as reference rate plus a given number of basis points (i.e. the spread), which make it possible to compare fixed income assets even denominated in different currencies. This means that the relevant value pertaining to buyback is not the issue price but, instead, the values recorded on banks’ books, corresponding to the mid-swap value calculated at the issuance plus N basis points.

Therefore, during the process of price fixing the impact of derivatives on the budgets of both the parties was taken into account. On the one hand, bondholders were required to withstand a loss equal to 1\% of the value of bonds recorded on their balance sheet (condition

\textsuperscript{16} The courts of auditors detected breaches of the legislation, contractual imbalances, incorrect accounting practices, failure to assess value for money, inadequate managers, and brokers with conflicts of interest; accordingly, the Law No. 133/2008 imposed a first temporary ban on derivatives, followed by an absolute ban in 2013 by the Law No. 147/2013,
to be eligible for the buyback). On the other hand, the regions, supervised by MEF, opted to
dismiss only the bond-derivative combinations with positive mark-to-market (condition for
choosing the bonds to buyback).

Whenever in Figure 1 $② + ③ < ①$ buyback guaranteed debt reduction. In fact, the
overall cost falls only when the mark-to-market is positive and so the level of public debt is
reduced\(^\text{17}\). Only if the above conditions are met might regions actually buyback their bonds
(point ④ in Figure 1). The financial resources that regions needed were provided as a mortgage
at a fixed rate of 2.26% and a subsidy by the MEF, which during 2014 raised them at the
average rate of 1.35% for such purposes. While the cumulative debt stock has remained steady,
the operation generates a flow of constant income for the State resulting from the difference
between the funding average rate and mortgage rate conceded to regions. This revenue stream
generated a surplus that supported the entire Decree Law allowing a series of measures in the
field of competitiveness and social justice to be financed. In that sense, the effects of the
operation went far beyond the buyback itself.

The debt repurchased amounts to €3.7 billion and it has been financed with a €2.8
billion mortgage and a €403 million subsidy, while the remaining part is debt reduction of
about €440 million. However, by multiplying the repurchased amount by the repurchase prices,
it is clear that the amount paid to bondholders is much higher and equal to €4.9 billion as shown
in Table 2.

[INSERT TABLE 2 HERE]

The table is a personal elaboration of MEF data. Note that Campania 2036 e Lombardy
2032 were originally denominated in dollars, but the table shows the equivalent in Euros
calculated on the buyback date. The figures in the first column reveal the spread (that is N basis

\(^{17}\) On the contrary, with negative mark-to-market the overall cost is increased and so the level of public debt is
increased.
points over mid swap) that bondholders recorded in their books, while the figures in the second
column represent the acquisition prices in terms of cash prices of mid-swap plus the spread at
issuance and on it a 1% discount has been charged. The differences between the values
(expressed in millions of Euros) in the third and fourth columns have been financed by means
of the profits generated by derivatives closure. In other words, the regions were able to raise
additional resources by monetizing the derivatives with positive mark-to-market, which
provided €1.7 billion (standing at 34% of the overall cost of the operation). In this way the
buyback not only reduced their public debt but also simplified their debt structure by
extinguishing derivatives.

The impact of this debt reduction is, obviously, limited considering the huge amount of
cumulative, sovereign together with sub-sovereign, Italian debt (only 0.02% of 2232 billion
euros), or when compared with the regional debt (only 0.68% of 65 billion euros). However,
considering the amount of the repurchased debt, this buyback guaranteed a high standard of
efficiency, since it has made possible a debt relief estimated at 11.89% of the face value.
Accordingly, the debt reduction that resulted from debt management and creative accounting
practices aimed to reduce the costs of servicing public sector debt and the derivatives: the
MEF’s ten-year prospectus\(^{18}\) shows that the expected savings are €1.1 billion.

From the responses to the interviews made clear it became evident that when-bonds
have been issued between (namely since 1998 up to and 2006) they constituted an effective
funding method, because the conditions offered by capital market were better than the
mortgage market. This high attractiveness has resulted from a greater liquidity and less
risk (e.g. Region Lombardy’s rating was even higher than that of Italy) of bonds compared to
other funding methods. Indeed, Region Lombardy’s rating was higher than that of Italy’s
national government. Nevertheless, they Despite this, they have proved to be vulnerable to
changes in the market. In particular, the structure of bullet bonds exposed the regions to

\(^{18}\) Available at http://www.mef.gov.it/inevidenza/article_0179.html.
excessive risks until maturity of the bond. For example, in one particular case, it was revealed that there were up to 5 derivatives covering a single bond. Significant annual costs have been the effect of this variety: in one particular case it has been estimated as about 12% per year of the underlying bond. Sometimes, the derivatives’ riskiness has also been emphasized by the Court of Auditors, which focused especially upon the collateral structure and the composition of sinking funds. Other risk factors are attributable to “extremely dangerous” legal disputes. (quoting i.e. as defined by the interviewee)

For these reasons, regions were enthusiastic about the repurchase operation was accepted enthusiastically by regions: the “substantial” (quoting in the words of the respondents) regional public debt relief and the elimination of risks related to the bullet bond structure have been the main reasons prompting the regions to participate. Furthermore, the returned questionnaires revealed that closure of derivatives financed up to 50% of the total cost of the buyback in terms of economic viability, from the returned questionnaires it emerged that the buyback was extensively funded with the closure of derivatives (up to 50% of the total cost).

Referring to the three research questions stated in the introduction, the Italian experience makes clear that member states can use feasible measures are available for EU Member States to buyback to engage in bonds buybacks and to reduce their levels of outstanding governmental debt.

“It is important to do something to relieve public sector debt, and we need constantly to devise solutions aimed at reducing its amount. This provision is still working, consequently other bond buyback cannot be excluded; but if it does not occur the unspent funding will be allocated to the debt sinking fund, since the rationale of this provision is debt reduction.” –[name of interviewee withheld for anonymity]

The initial budget for the buyback amounted to €8.7 billion because it contemplated even the repurchase of the debt of Abruzzo, Piedmont and Val d’Aosta. However, since their
derivatives obtained an unfavourable assessment, after having granted the financial resources to regions about €5 billion remained unspent. Clearly, if this money served other purposes rather than repurchase bullet bond, public sector debt would have increased: therefore, the Art. 45 includes the clause that the unspent funds may not be used except to achieve a reduction in public debt. Clearly, this makes this new feasible option to finance bond buybacks is both feasible and consistent appropriate with regard to respect for the EU fiscal framework, but at the same time it was also capable of achieving a reduction in total public debt and together with reduction in debt servicing costs, which, in turn, reduced to some extent the need for austerity-induced cutbacks in public spending and tax increases.

‘The great strength of this operation is that it made sense not just per se, but it has also allowed a series of measures to promote competitiveness and social justice laid down in the Decree Law No. 66/2014.’ – [name withheld for anonymity]

These measures include For example, the reduction of the tax wedge on labour (Art. 1), the reduction of taxes for productive activities (Art. 2), and the allocation of additional resources to a tax–free zone in southern Italy (Art. 22 bis). These are being have been (and will be) financed, at least partially, through the flow of revenues resulting from the aforementioned difference in interest rates on State funding and the Regions’ mortgage between the funding and the mortgage. This means that engaging in bond buybacks may reduce the likelihood and extent of adverse economic and social impacts of austerity programmes and/or financial penalties imposed for failure to abide by the progressive debt reduction schedule of the Fiscal Compact.

‘In my opinion, the high public debt level is one of the burning issues for Italian public financial management, not in absolute terms but rather with respect to the debt/GDP ratio; therefore, to reduce the debt volume compared to GDP is a decisive factor.’ – [name withheld for anonymity]
5.6. Concluding thoughts

Although its results are limited to a single case, this paper has provided preliminary evidence of how bond buyback can support member states’ compliance with the EU Fiscal Compact. Even if it is only a marginal solution by its own figures, it also demonstrated how that compliance may not always necessitate the severe social and economic sacrifices some countries (not only Greece) are having to incur as a condition of their unsustainable public finances being bailed out by the Troika. The conclusion is that bond buybacks could be fit-for-purpose as one particular approach to fiscal consolidation within the current EU context. Hence, the Italian bond buyback case is pertinent for the signal sent, notwithstanding the relatively limited amount repurchased. The MEF successfully involved the regions in debt reduction to observe the EU constraints whilst avoiding in tandem cuts in public services and/or raising taxes, instead relying on an option that has not required budget surpluses. Although its results are limited to a single country case and the amounts involved are relatively small, the Italian bond buyback case demonstrates how regional governments can engage in debt reduction, helping national governments observe EU rules whilst avoiding in-tandem cuts in public services and/or raising taxes to generate budget surpluses. Inclusion of sub-national debt in Fiscal Compact rules in 2020 will enhance the supportive role of regional governments in the management of national debt. Bond buybacks will therefore become even more fit-for-purpose as one particular approach to EU fiscal consolidation.

Bond buybacks are also compatible with other fiscal rules, including the UK’s Prudential Borrowing Framework (PBF) that requires municipalities to earmark to repayment of the borrowed sums the budgetary savings arising from invest-to-save projects. For example, a local government may borrow to finance thermal insulation of its buildings (e.g. schools) and the resulting savings on fuel costs thereafter relinquish the associated debt. Buyback of bonds will be advantageous if interest rates fall subsequent to their issue, thereby reducing the costs.
of that PBF debt and the risks that budgetary savings will not be sufficient to repay the original (higher interest rate) bond issue.

Favourable financial conditions played a key role in facilitating the Italian regional bond buyback of 2015 (i.e. low-falling interest rates, presence of derivatives and bondholders in financial difficulties). However, judging the success of buyback is not simply a financial matter and the financial market cannot assess its overall effectiveness. Instead, the role of the market is to provide the conditions for buyback to operate.

By answering the question whether bond buyback could help to reduce public sector debt without simultaneously resorting to austerity measures, this paper draws out conclusions which could be pertinent to the Euroarea. Contrary to the narrowly technical Bulow and Rogoff conclusion—highly negative boondoggle judgement in respect of individual developing countries’ bond buyback programmes adopts such a narrowly technical financial perspective: it is not transferable to EU member states that, individually and in concert, must observe the SGP and Fiscal Compact or otherwise incur substantial penalties. Bond buyback may also avoid—if profoundly adverse austerity-driven consequences are to be avoided and so those highly indebted countries would not necessarily waste resources engaging in bond buyback. Member states could engage in bond buybacks to avoid or otherwise minimise the adverse social and economic effects resulting from public sector austerity programmes, otherwise disproportionately focused on cutting spending, whilst also improving the efficiency of their debt management policy and practice, as made clear above. Hence, highly indebted EU countries would not necessarily waste resources by engaging in bond buyback and so its boondoggle characterisation would be invalid.

In fact, there is a range of both financially and politically feasible options available to member states to finance buybacks of their bonds, which in some relatively small way would support efforts to reduce their levels of outstanding governmental debt in order for them to achieve the progressive debt reduction required by the Fiscal Compact. For example, by deploying the unspent funding of €5 billion provided for in...
Art. 45 (see footnote 13), the Italian sub-sovereign buyback initiative could be extended to include buyback of bullet bonds issued by the whole sub-governmental level, not just the regions. Rather than cover all such bonds, it could apply only to those with more than 5 years residual life (since this is the legislative term of office of Italian governments) which amount to about €9.5 billion. This could be easily undertaken because the total amount is restricted to only a few bonds. For instance, Piedmont Region has €1.8 billion, Milan city €1.6 billion, Rome city €1.4 billion - totalling €4.8 billion. The cumulative debt of these institutions is more than €24 billion, and a buyback would work for about one fifth of this amount.

However, when considering buyback, countries have to consider a range of contextual factors and possible future developments. Contextual factors including how bond buyback can be financed, who holds those bonds (e.g. pension and insurance funds, domestic or foreign banks, investment trusts, financial speculators and other investors) and for what purposes they hold bonds, the allocation of bonds between levels of government, the terms of bonds (short, medium, long) etc. Countries must also consider possible future developments, including the potential for bond buyback may to be affected by expansion or contraction of ECB quantitative easing, ratings agencies changing their risk grading of economies and governments, any conditions set on assistance from the IMF and other funding bodies that could restrict buyback’s effectiveness etc. Some issues have become relevant since the regional government buyback (ECB quantitative easing for example) and others are yet to become relevant (inclusion of sub-national government debt in the Fiscal Compact rules in 2020). All these parameters must be considered in coming to a decision whether buyback is sustainable in EU member states.

Acknowledgments

[INSERT ACKNOWLEDGMENTS HERE]

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19 MEF secondary data.
References


Corte dei Conti (2015), Indagine conoscitiva sulle tematiche relative agli strumenti finanziari derivati ([http://www.corteconti.it](http://www.corteconti.it)).


Zorzetto, U. (2018), *The use of derivatives contracts by Italian local authorities* (Ca’ Foscari University of Venice).
Using Italian regional government case study qualitative research methods, our results demonstrate how recently introduced EU fiscal rules may legitimise bond buyback in its current fiscal austerity context, and how buyback might be a fit for purpose tool to help manage heavily constrained public finances, with a beneficial overall impact contrary to the longstanding negative boondoggle characterisation. In so doing, the paper takes account of the growing excessive presence of financial derivatives in public accounts and of the development of sub-sovereign fiscal decentralisation, both of which issues that are possibly changing significantly the operation game of debt management for countries like Italy.
Keywords

bond buyback

fiscal consolidation

public sector austerity

debt management

creative accounting
Table 1. Increase in prices due to bond buyback

<table>
<thead>
<tr>
<th></th>
<th>Bolivian Buyback</th>
<th>Greek Buyback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average price debt before the buyback</td>
<td>0.06 $</td>
<td>0.16 €</td>
</tr>
<tr>
<td>Average price debt included in the buyback</td>
<td>0.11 $</td>
<td>0.34 €</td>
</tr>
<tr>
<td>Growth rate</td>
<td>83.3%</td>
<td>112.5%</td>
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Source: 1987 Bolivian buyback data has been retrieved from Bulow and Rogoff, 1988; 2012 Greek buyback data has been retrieved from Xafa, 2013.
Table 2. Details of repurchased bonds*

<table>
<thead>
<tr>
<th>Regional Governments’ bond issues (maturity)</th>
<th>Coupon rate</th>
<th>Spread at issuance</th>
<th>Acquisition price</th>
<th>Repurchased amount</th>
<th>Cost of the buyback</th>
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<tbody>
<tr>
<td>Campania 2026</td>
<td>4.849%</td>
<td>30</td>
<td>1.34</td>
<td>765.00</td>
<td>1023.77</td>
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<tr>
<td>Campania 2036</td>
<td>6.262%</td>
<td>39</td>
<td>1.51</td>
<td>650.23</td>
<td>982.06</td>
</tr>
<tr>
<td>Lazio 2028</td>
<td>5.695%</td>
<td>32</td>
<td>1.47</td>
<td>842.00</td>
<td>1235.46</td>
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<tr>
<td>Liguria 2034</td>
<td>4.795%</td>
<td>22</td>
<td>1.49</td>
<td>80.00</td>
<td>119.00</td>
</tr>
<tr>
<td>Lombardy 2032</td>
<td>5.804%</td>
<td>30</td>
<td>1.38</td>
<td>522.58</td>
<td>720.94</td>
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<tr>
<td>Marche 2023</td>
<td>4.648%</td>
<td>19</td>
<td>1.27</td>
<td>33.32</td>
<td>42.31</td>
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<tr>
<td>Puglia 2023</td>
<td>0.298%</td>
<td>40</td>
<td>0.99</td>
<td>810.00</td>
<td>801.90</td>
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<tr>
<td><strong>Totals (millions of euro)</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>3703.13</strong></td>
<td><strong>4925.44</strong></td>
</tr>
</tbody>
</table>

* The initial budget for bond buyback amounted to €8.7 billion because it also envisaged repurchase of the debt of Abruzzo, Piedmont and Val d’Aosta. However, unfavourable assessment of their derivatives resulted in about €5 billion remaining unspent.

Source: Ministry of Economy and Finance secondary data.
The table is the authors’ elaboration of MEF data.
Table 3. Impact of bond buyback

<table>
<thead>
<tr>
<th></th>
<th>National level</th>
<th>Regional level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding debt</td>
<td>€2167 bn</td>
<td>€65 bn</td>
</tr>
<tr>
<td>Bonds bought back</td>
<td>-</td>
<td>5.69%</td>
</tr>
<tr>
<td>Funding</td>
<td>0.15%</td>
<td>-</td>
</tr>
<tr>
<td>New mortgage</td>
<td>0.13%</td>
<td>4.31%</td>
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<td>Subsidy</td>
<td>0.02%</td>
<td>0.62%</td>
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<tr>
<td>Debt reduction</td>
<td>-</td>
<td>0.77%</td>
</tr>
</tbody>
</table>

Source: authors’ elaboration of Ministry of Economy and Finance secondary data.
Figure 1. The regional government buyback scheme

Source: authors’ reconstruction of the links among buyback participants.