

This is an original manuscript of an article published by Taylor & Francis in [Public Money & Management] on [20 may 2019], available at: <http://www.tandfonline.com/10.1080/09540962.2019.1611225>].

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

Journal:	<i>Public Money & Management</i>
Manuscript ID	RPMM-2018-0160.R1
Manuscript Type:	Original Article
Keywords:	bond buyback, fiscal consolidation, public sector austerity, debt management, creative accounting
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.

SCHOLARONE™
Manuscripts

COVERING LETTER EXPLAINING AMENDMENTS MADE IN RESPONSE TO REVIEWERS' COMMENTS

Reviewer 1 comments	Summary of changes made in the resubmitted paper in response to this reviewers' comments
<p>The paper "Sub-sovereign bond buyback in the Euroarea: a boondoggle for governments?" presents a very interesting and relevant case study. The rationale 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.</p>	<p>No revisions are required in response to this accurate and concise summary of the paper.</p> <p>Revisions made in response to Reviewer 1 comments are highlighted in the resubmitted paper by using the track changes mode in MS Word.</p>
<p>The weakness of the paper is the lack of a precise quantitative analysis of the presented examples.</p>	<p>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.</p> <p>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).</p> <p>Illustrating these aspects makes clear how and why the buyback is neutral or even beneficial for public accounts.</p>
<p>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.</p>	<p>The analysis in Sections 4 and 5 of the resubmitted paper now recognises that the presence of derivatives it is not a secondary issue but rather is the critical argument on which the Italian buyback is centred.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

Reviewer 2 comments	Summary of changes made in the resubmitted paper in response to this reviewers' comments
<p>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 .</p>	<p>Section 6 briefly considers bond buyback in the UK by referring to its potential role in the Prudential Borrowing Framework (PBF).</p> <p>Again, revisions made in response to Reviewer 1 comments are highlighted in the resubmitted paper by using the track changes mode in MS Word.</p>
<p>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.</p>	<p>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.</p>
<p>I accept that the EU regulations are universal but the UK government has always had a restrictive view as to what is legal and what is not.</p>	<p>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.</p>

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

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 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 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.

1
2
3
4
5
6 external actors (e.g. IMF, World Bank, the Troika) or through debt management practices with
7 neutral budgetary impact.
8
9

10 The existing literature on bond buyback largely focuses on the first type but, regrettably,
11 even this funding method exacerbates austerity as result of the collaterals required by the
12 financial donors: an example of this is the Greek bailout. Therefore, this paper provides new
13 evidence that bond buyback can also be funded through proper use of creative accounting
14 practices without the need for a budget surplus or greater austerity.
15
16
17
18
19

20 Buybacks have previously been analysed within an economic and financial framework,
21 whereas this paper adopts a wider analytical framework that posits that the balance between
22 the pros and cons of buyback depends upon the opportunity cost of austerity to citizens, not
23 only to the financial market. That opportunity cost is what has to be foregone by using public
24 money to buyback bonds instead of using it to finance improved public services. Even though
25 the literature showed that creditors benefited more than debtors from bond buyback in previous
26 decades (Bulow and Rogoff, 1988, 1991), this is not necessarily the case in the post-2009 fiscal
27 crisis era, in which there were other reasons for countries to engage in buyback that could not
28 be foreseen by that previous research. The EU's Fiscal Compact provides the new context for
29 researching the distribution of benefits between debtors and creditors of bond buyback. For
30 heavily indebted EU countries there are profound benefits to be gained by avoiding the very
31 considerable financial penalties of failing to conform with the Fiscal Compact's debt reduction
32 schedule, perhaps also reducing the possibility of leaving the EU by avoiding the coming to
33 power of its internal anti-austerity/anti-EU political parties. These relatively new European
34 fiscal rules and austerity-engendered socio-politico dimensions provide a very different
35 analytical framework within which to study sovereign bond buybacks and whether they are fit
36 for purpose.
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52

53 This paper will try to fill this gap in the literature by considering three research
54 questions. First, whether member states may be able to engage in bond buybacks to avoid or
55 otherwise minimise the negative externalities (i.e. adverse social and economic effects)
56
57
58
59
60

1
2
3
4
5
6 resulting from the EU-wide public sector austerity programme. Second, the options available
7 to member states to finance buybacks of their bonds and the feasibility of those measures.
8
9 Third, whether bond buybacks could actually help member states reduce their levels of
10 outstanding governmental debt sufficiently in order for them to achieve the progressive debt
11 reduction required by the Fiscal Compact and, more generally, comply with Stability and
12 Growth Pact (SGP) rules without being solely reliant upon spending cuts and/or tax increases.
13
14
15
16
17

18 This may be possible under a debt management perspective and using creative
19 accounting practices. Although the EU is relying on macroeconomic control tools (such as debt
20 ceilings and balanced budgets), at the microeconomic level ‘efficient management of the public
21 debt portfolio, lower hedging costs, and greater ability to absorb exogenous shocks could be
22 facilitated by debt management practices that take into account the government’s overall
23 balance-sheet structure’ (IMF, 2014, p. 14). In this regard, both the directive 2011/85/EU (the
24 Budgetary Frameworks Directive) and the IPSASs (the internationally recognized accounting
25 standards for the public sector) agree that reliable public accounting practices are a
26 precondition to achieve sustainability of public finance, and to contribute to the more accurate
27 public debt management and fiscal consolidation (IFAC, 2017a, 2017b).
28
29
30
31
32
33
34
35
36

37 Answering the three research questions, the paper focuses upon analysis of the Italian
38 regional bond buyback at the end of 2015, whose critical element relates to the characteristics
39 of the hedging system of bullet bonds through sinking funds and amortizing swaps. When
40 derivatives play a role in debt management, ‘accounting [...] is crucial for strengthening
41 confidence in the soundness of the government’s financial position’ (IMF, 2014, p. 18). The
42 new analytical framework for bond buyback developed in this paper builds on this fundamental
43 consideration and, for this reason, buyback oriented towards the EU’s fiscal rules could become
44 seen as very effective as an alternative to spending cuts and tax increases.
45
46
47
48
49
50
51
52

53 This paper analyses Euroarea debt reduction using an Italian case study but first
54 provides a description of the specific circumstances of the Euroarea and a comprehensive
55 critical literature review on bond buybacks.
56
57
58
59
60

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 brake² rule and the balanced budget³ 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.

1
2
3
4
5
6 establish rules beyond the reach of politics and thereby to constrain the state and insulate it
7 from democratic pressures that tend in an expansionary direction' (McBride, 2016, p. 7).

8
9
10 To adhere to these new parameters 'implies not only upwards migration of standard
11 setting to the European level, but also the centralization of standard setting within each EU
12 Member State' (Heald and Hodges, 2015, p. 1009). Overriding such a core national government
13 function is a considerable challenge for the EU and its Member States, because it effectively
14 diminishes the constitutional relationship between the state and its citizens. The 'burden' of
15 austerity is borne by the general community and so, for them, whether austerity-driven fiscal
16 policy is acceptable or not depends upon the opportunity costs they face.

17
18
19
20
21
22
23
24 Austerity is widely regarded as having led to increased inequality and injustice as a
25 result of the reduction in state intervention. In this regard, Bracci et al. (2015) provided a
26 detailed overview of the negative economic and social consequences of austerity measures,
27 which are in stark contrast with the EU's welfare model inspired by social justice, equity and
28 solidarity (Petmesidou and Guillén, 2014). These outcomes would appear to be incompatible
29 with the expectations of many countries when they joined the EU, envisaging benefits of
30 sharing economic prosperity, national security and improved social welfare that far outweighed
31 any possible risks.

32
33
34
35
36
37
38
39 Unsustainable debt was previously only a matter for creditors and debtors but nowadays
40 Eurozone countries have to fulfil their debt obligations to maintain the integrity of the EU.
41 Thereby, since the adherence to the new governance parameters implied the centralization of
42 standard setting to the European level (Heald and Hodges, 2015), many countries became
43 subject to Troika⁴ assistance programmes without which they would not have been able meet
44 their short-term debt-repayment obligations and so would have defaulted on debt repayment
45 (Agostino and Lapsley, 2013). However, 'the conditions attached to each tranche of finance
46 have included extreme austerity programmes, such that the dependent economies have

47
48
49
50
51
52
53
54
55
56
57

⁴ The European Central Bank, European Commission and International Monetary Fund.
58
59
60

1
2
3
4
5
6 experienced increased unemployment, severe economic downturns, social unrest and the
7 migration of skilled workers' (Cohen et al., 2015, p. 985). Thus, the Troika's fiscal
8 consolidation approach to debt management applied over such an extended period has revealed
9 its financial, socioeconomic, constitutional and other limitations, disappointing the populace
10 and destabilizing the political scene. Consequently, within this much broader context,
11 assessment of the effectiveness of bond buybacks cannot rely exclusively on financial
12 parameters. Buybacks are beneficial for highly indebted countries to the extent that they help
13 them meet Fiscal Compact requirements, reduce the pressure on their debt-to-GDP ratios and
14 free up financial resources for public services in the long term.
15
16
17
18
19
20
21
22
23

24 However, considering that this set of rules is applicable only to the national level, and
25 that many European states (e.g. Spain, Italy and Germany) are characterized by several tiers of
26 sub-sovereign issuers empowered to issue and manage their own debt, EU financial stability
27 might not be guaranteed. Domestic stability pacts have been adopted across Europe in order to
28 strengthen the control over local government accounts, but sometimes they went into pre-
29 existing local debt regulation (Monacelli et al., 2016) leading to overlapping regulations.
30 Therefore, the concept of sub-sovereignty refers not only to the financial autonomy of the issuer
31 but also to the balance of powers between national and supranational rules that govern this
32 financial autonomy. The aftermath of European fiscal rules within this framework is that
33 regions are effectively unable to manage their debt: municipalities must now seek to reduce
34 their levels of debt so that the national government can comply with the Fiscal Compact's
35 progressive debt reduction schedule.
36
37
38
39
40
41
42
43
44
45
46
47

48 **2. Bond buyback literature review**

49
50 Bulow and Rogoff (1988) studied bond buyback schemes in developing countries, critically
51 categorising them as a 'boondoggle benefiting a country's creditors' (Bulow and Rogoff, 1988,
52 p. 676), meaning an unnecessary, wasteful or fraudulent project. This, they said, is because a
53 rational bondholder will require a payment higher than the redemption value of the bond (or its
54
55
56
57
58
59
60

1
2
3
4
5
6 market price) in order to sell back to the issuer. Hence, bond buyback raises the market value
7 of the debt left outstanding, and consequently it may worsen - rather than improve - the net
8 asset position of the sovereign (Claessens and Dell’Ariccia, 2011). For example, in 1987
9 Bolivia received \$34 million from the IMF and World bank to buy back its sovereign bonds.
10 The face (i.e. redemption) value of those bonds was \$670 million but their market value was
11 only six percent of that (i.e. 6 cents on the dollar) and so the market value was just \$40.2
12 million. That being the case, Bolivia was supposed to be able to repurchase around 85% of its
13 total sovereign debt. However, the 1988 buyback price raised up to 11 cents on the dollar and
14 so Bolivia was able to buyback only 46% (Krugman, 1988, 1989; Bulow and Rogoff, 1988,
15 1991).

16
17 Although debtor countries are attracted by the possibility to buy back their own debt
18 instead of using the same money to pay interest, academics and experts concluded that ‘it is
19 inadvisable for countries to try to buy out some of their creditors unilaterally through voluntary
20 swaps and buybacks’ (Bulow and Rogoff, 1988, p. 698). Other scholars subsequently
21 investigated buybacks from a broader economic (rather than narrow financial) standpoint
22 (Krugman, 1988, 1989; Dornbusch, 1988; Rotenberg, 1991; Acharya and Diwan, 1993;
23 Claessens and Diwan, 1994; Coe et al., 2005; Marchesi, 2006; Baglioni, 2015). These other
24 authors dispute Bulow and Rogoff’s conclusion that although ‘buybacks stimulate investment
25 they still are not likely to benefit debtors’ because when ‘creditors believe that the buyback
26 will stimulate growth, they will demand a higher price in order to sell’ (Bulow and Rogoff,
27 1991, p. 1219). The consensus of this stream of literature is that the increase in the market price
28 caused by bond buyback could be compensated by the following considerations. First, reducing
29 the debt overhang effect. Second, reducing the overall cost of debt and future bargaining costs.
30 Third, reducing the default costs and the probability of default. Fourth, used as a signal of
31 country’s willingness to invest, thus having mutual benefits for debtors as well as their
32 creditors.

33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4
5
6 About half of OECD countries⁵ have undertaken debt buyback operations since the
7
8 1990s but the academic literature has remained predominantly focused on buybacks in
9
10 developing countries. Most developed country research previously focused on the USA and
11
12 UK, giving an account of the impact of the maturity profile of debt that often caused cash flow
13
14 problems for the governments. The results of these studies suggest the buyback structure may
15
16 be generally successful in minimizing the interest expense rather than the buyback costs (Coe
17
18 et al., 2005; Han et al., 2007). As regards Europe, a 1996 Bank of Italy survey found that the
19
20 percentage of repurchased debt ranged from 0.3% in Italy, to 12% in Ireland (Marchesi, 2006).
21
22 More recently, the Troika required a buyback by the Greek government in 2012 (Claessens and
23
24 Dell’Ariccia, 2011; Baglioni, 2015). This ‘set a new world record in terms of restructured debt
25
26 volume and aggregate creditor losses, easily surpassing previous high-water marks such as the
27
28 default and restructuring of Argentina in 2001–2005’ and it could be considered ‘the first major
29
30 debt restructuring in Europe since the defaults preceding World War II’ (Zettelmeyer et al.,
31
32 2013, pp. 515-516). The Greek government used €11.3 billion⁶ to retire €31.9 billion of
33
34 Hellenic Republic’s bonds, reducing the debt by €20.6 billion. However, during the period May
35
36 to December the average price rose from 0.13-0.18 cents trading range up to 33.8 cents per
37
38 Euro (Xafa, 2013; Zettelmeyer et al., 2013).

39 Table 1. Increase in prices due to bond buyback

40
41
42 [INSERT TABLE 1 HERE]
43

44 *Source:* 1987 Bolivian buyback data has been retrieved from Bulow and Rogoff, 1988;
45 2012 Greek buyback data has been retrieved from Xafa, 2013.
46

47 Table 1 reports consequences of the increase in prices due to bond buyback. It is
48
49 interesting how the same practice applied to developing and developed countries leads to the
50
51 same result: in fact, the Greek and Bolivian cases are subject to the same limitation, namely
52
53

54
55 ⁵ Australia, Austria, Belgium, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, Netherlands, New
56 Zealand, Norway, Spain, Sweden, United Kingdom, United States.

57 ⁶ Funded by the European Financial Stability Facility (EFSF).
58
59
60

1
2
3
4
5
6 that the higher bond prices induced by the buyback significantly reduces the financial benefits
7 of this operation.
8

9
10 Notwithstanding the limitations identified in literature, bond buyback has been
11 regarded by the finance ministers within the Eurozone countries as an important success that,
12 together with the other initiatives agreed (i.e. austerity programme), may put the Greek public
13 finances on a sustainable route by leading to a substantial reduction of the Greek debt-to-GDP
14 ratio (Eurogroup Statement on Greece 13rd December, 2012). In fact, the support of the
15 European Financial Stability Facility (EFSF) needed for that buyback operation was
16 conditional upon implementation of the hardest austerity measures seen so far in the EU. This
17 means that the Greek government buyback should be researched using a much broader
18 analytical framework that extends beyond the conventional narrow technical and financial
19 issues to also consider socioeconomic and politico-constitutional (including human rights)
20 parameters. This much more holistic framework should also be adopted by other countries
21 whose debts are as high a proportion of GDP as was the case for Greece at the start of its Troika
22 bailouts, including Italy.
23
24
25
26
27
28
29
30
31
32
33
34

35 Although Italy's debt/GDP ratio in 2015 was the same as it was for Greece at the first
36 bailout (around 134%, Eurostat data retrieved on 16-02-2018) a bailout by the Troika and/or
37 the EFSF would not be financially feasible, because the absolute amount of debt to repurchase
38 is far greater than of Greece (€2173.3 billion and €311.7 billion respectively). Moreover, the
39 stagnation of Italy's GDP over the last few years means that there seems little chance of fast
40 economic growth reducing the public sector debt to GDP ratio. Since a default on debt by the
41 Italian government could be catastrophic for the Euro, for European banks holding much of
42 Italian government debt and for the Eurozone economy this suggests that the focus will
43 continue to be on implementation of austerity measures by means of contractionary fiscal
44 policy measures. Hence, all possible options for reduction of Italy's debt in both absolute and
45 proportionate terms must be explored, bond buyback included.
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4
5
6 This broader austerity context challenges Bulow and Rogoff's recommendation that
7 highly indebted countries should not waste resources in buybacks because creditors will reap
8 the efficiency gains. That and the other previous literature did not address the Fiscal Compact
9 because it did not then exist. In this new EU scenario, bond buyback could become seen as
10 very effective even if municipalities and governments do not make direct financial savings
11 from a buyback deal itself, including when it involves some direct costs.
12
13
14
15
16
17
18

19 **3. Research Methodology**

20
21 Since this EU-wide austerity context was not the reason for the bond buybacks
22 considered in the literature reviewed above, the three main research questions cannot be
23 addressed by recourse to EU-wide quantitative data because member states have not yet
24 systematically engaged in bond buyback and so sufficient data are not yet available. This dearth
25 of available and relevant data means that empirical research seeking to answer the three
26 research questions must be initially small-scale, embedded in qualitative research methods
27 specifically designed to take account of the EU-wide fiscal consolidation. This paper utilizes a
28 qualitative exploratory case study methodology (Yin, 2011) to analyse the 2015 Italian regional
29 government bond buyback within the holistic framework outlined above. The case study
30 investigates the experience of regional municipalities buying back their own debt, as well as
31 the coordinating role played by the Ministry of Economy and Finance (MEF).
32
33
34
35
36
37
38
39
40
41
42

43 The analysis covered relevant national and regional legislation (regional laws
44 sometimes diverge), regional council decisions, official documentation and press releases
45 issued by the MEF. In addition, to integrate and understand the information gathered
46 throughout the preliminary documentary analysis, a series of interviews subsequently took
47 place during 2016 including a long-lasting in-depth face-to-face interview with the managing
48 director of the operation at MEF. That interview lasted 105 minutes, the intention being to
49 verify the hypothesis expressed in the research questions namely that bond buybacks could
50 reduce negative externalities associated with complying with Fiscal Compact and SGP debt
51
52
53
54
55
56
57
58
59
60

1
2
3
4
5
6 reduction austerity rules without being solely reliant upon spending cuts and/or tax increases.
7
8 Thereafter, a series of interviews via email took place with the heads of finance in the 6
9
10 involved regions⁷ with the aim of understanding the reasons underpinning their participation at
11
12 the bond buyback.
13
14

15 **4. The 2015 Italian regional government bond buyback**

16
17 Consistent with the hypothesis just stated, the 2015 Italian regional bond buyback is an
18
19 example of debt management operations that did not require a budget surplus, spending cuts or
20
21 tax increases. Instead, it utilised an accounting engineering approach with a neutral or even
22
23 beneficial effect on the national government budget. The key factor for financing the buyback
24
25 is the positive evaluation of derivatives signed by regional governments in order to hedge the
26
27 underlying debt. The bonds involved in this buyback operation were bullet bonds⁸ hedged both
28
29 by sinking funds and by amortizing swaps to guarantee that sufficient money would be
30
31 available to redeem the bond upon maturity, as laid down by Local Government financial law
32
33 No. 448/2001. Sinking funds allow the issuer to repay the principal of the bullet bond through
34
35 a repayment plan rather than in full on the maturity date⁹. Amortizing swaps, allow interest rate
36
37 swaps (e.g. from fixed to floating) during a bond's repayment plan (Lagna, 2015). By using
38
39 these derivatives, the bond's notional principal amount decreases over time mitigating the risks
40
41 for the Regions that issued bullet bonds; since the derivatives have to hedge an increasingly
42
43 small part of these bonds, by contrast, their mark-to-market¹⁰ tends to increase over time.
44
45

46 These derivatives have an important hedging role but their use has not always been
47
48 appropriate (Corte dei Conti, 2015). Accordingly, their use was prohibited¹¹ for local
49
50

51 ⁷ Italy has 20 regional governments.

52 ⁸ Debt instruments whose entire value is paid to the bondholder on the date of its maturity.

53 ⁹ Note that the underlying obligation for the Region remains a bullet bond.

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

56 ¹¹ Law No. 133/2008 imposed a temporary ban on derivatives, subsequently followed by the absolute ban of
57 Law No. 147/2013.
58
59
60

1
2
3
4
5
6 governments and so regions are no longer able to renegotiate their bonds because derivatives
7 have to be terminated simultaneously with the underlying debt. As an exception to that
8 prohibition, Article 45 of Decree-Law No. 66/2014 subsequently allowed regions to manage
9 derivatives and thus buy back bonds with positive mark-to-market values, this determining the
10 choice of bonds to buyback.
11
12
13
14
15

16 Furthermore, derivatives play an important role even from the perspective of
17 bondholders. Around 90% of them were foreign financial institutions, mostly large German
18 and French banks (or Italian branches of those institutions), which purchased bonds issued by
19 regions and used derivatives to swap their interest rates from fixed to floating. Since
20 bondholders allocated the bonds in held-to-maturity portfolios, according to IAS and IFRS
21 principles, these titles have been accounted for at amortized historical cost by using the ‘spread
22 at issuance’ method. This is a methodology to assess the value of a bond with the mid-swap
23 used as reference rate plus a given number of basis points (i.e. the spread), which make it
24 possible to compare fixed income assets even denominated in different currencies. This means
25 that the relevant value pertaining to buyback is not the issue price but, instead, the values
26 recorded on banks’ books, corresponding to the mid-swap value calculated at the issuance plus
27 N basis points. However, bondholders were required to withstand a loss equal to 1 % of the
28 value of bonds recorded on their balance-sheet: that is the condition to be eligible for the
29 buyback.
30
31
32
33
34
35
36
37
38
39
40
41
42

43 Whilst proportionately small, this 1% loss imposed on bondholders is substantial in
44 monetary terms given the high values of bonds possessed, amounting to hundreds of millions
45 of Euros. So why did bondholders sell at a loss? One reason could be the precarious financial
46 condition of some of those players. For example, in 2012 the European Commission approved
47 a resolution plan for the Dexia Group resulting in a run-off procedure. Although not directly
48 involved in the run-off procedure the other bondholders may have gone through a critical
49 financial phase or radical corporate restructuring, in turn leading to portfolios being
50 reconfigured. Changes in the accounting strategy are due to the Basel agreement, which
51
52
53
54
55
56
57
58
59
60

1
2
3
4
5
6 required banks to meet the minimum capital requirements intended to mitigate various risks,
7 and so they may have sold bonds to minimise the collaterals reducing their exposure to
8 Eurozone peripheral debt, replacing it with German sovereign debt (Buch et al., 2016).
9 However, it can be difficult to assess the exposure of financiers to financial losses “because it
10 is affected by a broad range of activities such as lending, underwriting, trading with
11 derivatives” (Asenova and Beck, 2003, p. 196).
12

13
14 The buyback procedure is depicted in Figure 1. After the bullet bond issue (point ①),
15 the region signs sinking funds and amortizing swaps as required by regulations for municipal
16 debt operations (point ②). Bondholders purchase the bonds recording them in their account
17 books at historical values computed using the spread-at-issuance method, and swap the fixed
18 rate cash flows into floating rate cash flows (point ③). Whenever in Figure 1 $②+③<①$,
19 buyback guarants debt reduction. In fact, the overall cost falls only when the mark-to-market
20 is positive and so the level of public debt is reduced¹². Only if the above conditions are met can
21 regions buyback their bonds (point ④).
22
23
24
25
26
27
28
29
30
31
32
33
34
35

36 Figure 1. The regional government buyback scheme

37
38
39 [INSERT FIGURE 1 HERE]

40
41 *Source:* authors’ reconstruction of the links among buyback participants.
42
43

44 5. Buyback’s quantitative and qualitative aspects.

45
46 Through these transactions, €3.7 billion of sub-sovereign bonds have been traded, and
47 €4.9 billion have been spent to buy them back. Table 2 shows that the amount paid to
48 bondholders is much higher than the bonds’ face value (equivalent to the budgeted historical
49 cost applying the spread-at-issuance method). The first column reveals the spreads (i.e. N basis
50
51
52
53
54

55
56 ¹² On the contrary, with negative mark-to-market the overall cost is increased and so the level of public debt is
57 increased.
58
59
60

1
2
3
4
5
6 points over mid-swap) charged over the mid-swap rate by the bondholders. The figures in the
7
8 second column represent the acquisition prices calculated as the cash price equivalent
9
10 (discounted at 1%) to the mid-swap plus the spread. By multiplying the acquisition prices by
11
12 the repurchased amounts, the cost of the buyback is determined, as given in the fourth column
13
14 (values expressed in millions of Euros).

15
16 Table 2. Details of repurchased bonds¹³

17
18 [INSERT TABLE 2 HERE]

19
20
21 *Source:* Ministry of Economy and Finance secondary data.

22
23 The operation differentiates between financial flows and stock of debt. Analysing the
24
25 financial flows, the bond redemption has resulted in a €4.9 billion outflow that has been
26
27 financed by two means. First, a €2.8 billion mortgage and a €0.4 billion subsidy donated by the
28
29 MEF. Second, by monetizing the derivatives with positive mark-to-market that provided the
30
31 remaining €1.7 billion, equal to the 34% of the sum paid to the bondholder. The mortgage,
32
33 reduces the future financial outflows because its 2.26% fixed rate of interest is less than the
34
35 expected rates on bullet bonds coupled with derivatives. The MEF was in a position to grant a
36
37 2.26% fixed rate mortgage because during 2014 it raised funds at an average rate of 1.35%,
38
39 thereby generating a flow of income for the State. This net revenue stream financed a series of
40
41 measures in the field of competitiveness and social justice (point ④ in Figure 1). In that sense,
42
43 the beneficial effects of the operation went far beyond the buyback savings.

44
45 As regards the stock of debt, by replacing bullet bonds with the mortgage the sub-
46
47 sovereign debt fell by €0.9 billion, corresponding to 1.38% of outstanding regional debt and
48
49 22.78% of the bonds' face value. This fall resulted from debt management and use of creative
50
51 accounting to reduce the costs of servicing public sector debt and the derivatives. The subsidy

52
53
54 ¹³ The initial budget for bond buyback amounted to €8.7 billion because it also envisaged repurchase of the debt
55
56 of Abruzzo, Piedmont and Val d'Aosta. However, unfavourable assessment of their derivatives resulted in about
57
58 €5 billion remaining unspent.
59
60

1
2
3
4
5
6 is recorded in a special account separated from the State's budget, meaning it is not listed as a
7 liability. On the contrary, it is effectively a debt reduction corresponding to 0.02% of the overall
8 public debt (€2232 billion). Table 3 shows the operation is neutral for national government
9 because assets and liabilities are balanced. The percentages set out in the table 3 relate to
10 National and Regional outstanding debt relatively.
11
12
13
14

15
16 Table 3. Impact of bond buyback

17
18 [INSERT TABLE 3 HERE]
19

20
21 *Source:* authors' elaboration of Ministry of Economy and Finance secondary data.
22

23 Responses to the interviews made clear that bonds issued between 1998 and 2006
24 constituted an effective funding method because the conditions offered by capital market were
25 better than the mortgage market. This resulted from greater liquidity and less risk of bonds
26 compared to other funding methods. Indeed, Region Lombardy's rating was higher than that
27 of Italy's national government. Nevertheless, they proved to be vulnerable to changes in the
28 market. In particular, the structure of bullet bonds exposed the regions to excessive risks until
29 maturity of the bond. For example, in one particular case, it was revealed that there were up to
30 5 derivatives covering a single bond. Significant annual costs have been the effect of this
31 variety: in one particular case it has been estimated as about 12% per year of the underlying
32 bond. The derivatives' riskiness has been emphasised by the Court of Auditors, which focused
33 especially upon the collateral structure and the composition of sinking funds. Other risk factors
34 are attributable to "extremely dangerous" (quoting the interviewee) legal disputes.
35
36
37
38
39
40
41
42
43
44
45

46 For these reasons, regions were enthusiastic about the repurchase operation: the
47 "substantial" (quoting respondents) regional public debt relief and the elimination of risks
48 related to the bullet bond structure were the main reasons prompting regions to participate.
49 Furthermore, the returned questionnaires revealed that closure of derivatives financed up to
50 50% of the total cost of the buyback.
51
52
53
54
55
56
57
58
59
60

1
2
3
4
5
6 Referring to the three research questions stated in the introduction, the Italian
7
8 experience makes clear that feasible measures are available for EU Member States to buyback
9
10 bonds to reduce their levels of outstanding debt.
11

12
13 ‘It is important to do something to relieve public sector debt, and we need constantly to
14
15 devise solutions aimed at reducing its amount. This provision is still working,
16
17 consequently other bond buyback cannot be excluded; but if it does not occur the unspent
18
19 funding will be allocated to the debt sinking fund, since the rationale of this provision is
20
21 debt reduction.’ [name of interviewee withheld for anonymity]
22

23
24 Clearly, this option to finance bond buybacks is both feasible and consistent with the
25
26 EU fiscal framework, also capable of reducing total public debt and debt servicing costs which,
27
28 in turn, reduced to some extent the need for austerity-induced cutbacks in public spending and
29
30 tax increases.
31

32
33 ‘The great strength of this operation is that it made sense not just per se, but it has also
34
35 allowed a series of measures to promote competitiveness and social justice laid down in
36
37 the Decree Law No. 66/2014.’ [name withheld for anonymity]
38

39
40 These measures include reduction of the tax wedge on labour (Art. 1), reduction of
41
42 taxes for productive activities (Art. 2), and allocation of additional resources to a tax-free zone
43
44 in southern Italy (Art. 22 bis). These are being financed, at least partially, through the flow of
45
46 revenues resulting from the aforementioned difference in interest rates on State funding and
47
48 the Regions’ mortgage. Thus bond buybacks may reduce the likelihood and extent of adverse
49
50 economic and social impacts of austerity programmes and/or financial penalties imposed for
51
52 failure to abide by the progressive debt reduction schedule of the Fiscal Compact.
53

54
55 ‘In my opinion, the high public debt level is one of the burning issues for Italian public
56
57 financial management, not in absolute terms but rather with respect to the debt/GDP
58
59
60

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

1
2
3
4
5
6 SGP and Fiscal Compact or otherwise incur substantial penalties. Bond buyback may also
7
8 avoid profoundly adverse austerity-driven consequences whilst also improving the efficiency
9
10 of their debt management policy and practice, as made clear above. Hence, highly indebted EU
11
12 countries would not necessarily waste resources by engaging in bond buyback and so its
13
14 boondoggle characterisation would be invalid.
15

16 In fact, a range of both financially and politically feasible options is available to
17
18 Member States to finance buybacks of their bonds, which in some relatively small way would
19
20 support efforts to reduce their levels of outstanding debt in order to achieve the progressive
21
22 reduction required by the Fiscal Compact. For example, by deploying the unspent funding of
23
24 €5 billion provided for in Art. 45 (see footnote 13), the Italian sub-sovereign buyback initiative
25
26 could be extended to include buyback of bullet bonds issued by the whole sub-governmental
27
28 level, not just the regions. Rather than cover all such bonds, it could apply only to those with
29
30 more than 5 years residual life (since this is the legislative term of office of Italian governments)
31
32 which amount to about €9.5 billion. This could be easily undertaken because the total amount
33
34 is restricted to only a few bonds. For instance, Piedmont Region has €1.8 billion, Milan city
35
36 €1.6 billion, Rome city €1.4 billion - totalling €4.8 billion¹⁴. The cumulative debt of these
37
38 institutions is more than €24 billion, and a buyback would work for about one fifth of this
39
40 amount.
41

42 When considering buyback, countries have to consider a range of contextual factors,
43
44 including how bond buyback can be financed, who holds those bonds (e.g. pension and
45
46 insurance funds, domestic or foreign banks, investment trusts, financial speculators and other
47
48 investors) and for what purposes they hold bonds, the allocation of bonds between levels of
49
50 government, the terms of bonds (short, medium, long) etc. Countries must also consider
51
52 possible future developments, including the potential for bond buyback to be affected by
53
54 expansion or contraction of ECB quantitative easing, ratings agencies changing their risk
55

56
57 ¹⁴ MEF secondary data.
58
59
60

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

[INSERT ACKNOWLEDGMENTS HERE]

References

- Acharya, S. and Diwan, I. (1993), Debt buybacks signal sovereign countries' creditworthiness: theory and tests, *International Economic Review*, 34, 795–817.
- Agostino, D. and Lapsley, I. (2013), City-charity partnerships and the financial crisis: case study evidence, *Public Management Review*, 15, 633-656.
- Asenova, D., and Beck, M. (2003), The UK financial sector and risk management in PFI projects: a survey, *Public Money and Management*, 23, 195-202.
- Baglioni, A. (2015), Leveraged Buybacks of Sovereign Debt: A Model and an Application to Greece, *Contemporary Economic Policy*, 33, 87-103.
- Bailey, S.J., Valkama P. and Salonen, S. (2014), The EU's public finance crisis: causes, consequences and cure, *Public Money & Management*, 34, 83-90.
- Baudouin, R, Silva, A.C., Akcadag, O. and Raghavan I. (2015), *Bond buybacks and exchanges: background note* (World Bank Group).
- Bracci, E., Humphrey, C., Moll, J. and Steccolini, I. (2015), Public sector accounting, accountability and austerity: more than balancing the books?, *Accounting, Auditing & Accountability Journal*, 28, 878-908.
- Buch, C. M., Koetter, M. and Ohls, J. (2016), Banks and sovereign risk: A granular view, *Journal of Financial Stability*, 25, 1-15.
- Bulow, J. and Rogoff, K. (1988), The buyback boondoggle, *Brookings Papers on Economic Activity*, 1988, 675–704.
- Bulow, J. and Rogoff, K. (1991), Sovereign Debt Repurchases: No Cure for Overhang, *Quarterly Journal of Economics*, 106, 1219-1235.
- Claessens, S. and Dell'Ariccia, G. (2011), Are Buybacks an Efficient Way to Reduce Sovereign Debt?, *VOX* (<http://voxeu.org>).
- Claessens, S. and Diwan, I. (1994), Recent experience with commercial bank debt reduction: Has the "menu" outdone the market?, *World Development*, 22, 201-213.

- 1
2
3
4
5
6 Coe, P.J., Pesaran, M.H. and Vahey, S.P. (2005), The Cost Effectiveness of the UK's Sovereign Debt Portfolio,
7 *Oxford Bulletin of Economics and Statistics*, 67, 467-495.
- 9 Cohen, S., Guillamón, M. D., Lapsley, I. and Robbins, G. (2015), Accounting for austerity: the Troika in the
10 Eurozone, *Accounting, Auditing & Accountability Journal*, 28, 966-992.
- 12 Corte dei Conti (2015), Indagine conoscitiva sulle tematiche relative agli strumenti finanziari derivati
13 (<http://www.corteconti.it>).
- 15 Dornbusch, R. (1988), Comments and discussion on: The buyback boondoggle, *Brookings Papers on Economic*
16 *Activity*, 1988, 699-704.
- 18 European Commission (2016), Vade Mecum on the Stability and Growth Pact, *European Economy Institutional*
19 *Papers* (<http://ec.europa.eu>).
- 21 Fingland, L. and Bailey, S.J. (2008), The EU's Stability and Growth Pact: Its Credibility and Sustainability,
22 *Public Money & Management*, 28, 223-230.
- 24 Han, B., Longstaff, F.A. and Merrill, C. (2007), The U.S. Treasury Buyback Auctions: The Cost of Retiring
25 Illiquid Bonds, *The Journal of Finance*, 62, 2673-2693.
- 27 Heald, D. and Hodges, R. (2015), Will austerity be a critical juncture for European public sector financial
28 reporting?, *Accounting, Auditing & Accountability Journal*, 28, 993 – 1015.
- 29 IFAC (2017a), *Handbook of International Public Sector Accounting Pronouncements, Volume I*, (International
30 Federation of Accountants).
- 32 IFAC (2017b), *Handbook of International Public Sector Accounting Pronouncements, Volume II*,
33 (International Federation of Accountants).
- 35 Krugman, P. (1988), Financing vs. forgiving a debt overhang, *Journal of Development Economics*, 29, 253-
36 268.
- 38 Krugman, P. (1989), Market-based debt reduction schemes, in: Jacob A. Frenkel, Michael P. Dooley and Peter
39 Wickham (ed), *Analytical Issues in Debt* (International Monetary Fund).
- 41 Lagna, A. (2015), Italian municipalities and the politics of financial derivatives: rethinking the Foucauldian
42 perspective, *Competition and Change*, 19, 283-300
- 44 Lewis, J.D., and Viñals, J. (2014), *Revised Guidelines for Public Debt Management* (International Monetary
45 Fund).
- 47 Marchesi, S. (2006), Buybacks of domestic debt in public debt management, *The European Journal of Finance*,
48 12, 379-400.
- 49 McBride, S. (2016), Constitutionalizing austerity: Taking the public out of public policy, *Global Policy*, 7, 5-
50 14.
- 52 Monacelli, D., Paziienza, M.G. and Rapallini, C. (2016), Municipality Budget Rules and Debt: Is the Italian
53 Regulation Effective?, *Public Budgeting & Finance*, 36, 114 -140.
- 55 Petmesidou, M. and Guillén, A.M. (2014), Can the welfare state as we know it survive? A view from the crisis-
56 ridden south European periphery, *South European Society & Politics*, 19, 295-307.
- 58
59
60

1
2
3
4
5
6 Rotenberg, J.J. (1991), Sovereign debt buybacks can lower bargaining costs, *Journal of International Money*
7 *and Finance*, 10, 330–348.

8
9 Xafa, M. (2013), Life after Debt, *World Economics*, 14, 81-102.

10 Zandstra, D. (2011), The European sovereign debt crisis and its evolving resolution, *Capital Markets Law*
11 *Journal*, 6, 285-316.

12
13 Zettelmeyer, J., Trebesch, C. and Gulati, M. (2013), The Greek debt restructuring: an autopsy, *Economic*
14 *Policy*, 28, 513-563.

15
16 Zorzetto, U. (2018), *The use of derivatives contracts by Italian local authorities* (Ca' Foscari University of
17 Venice).

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

Manuscript with track changes

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.

1
2
3
4
5
6 unredeemed bonds decreasing in line with the reduction of the stock of debt (Marchesi, 2006).
7
8 Different from other debt reduction schemes, buybacks do not necessarily require budget
9
10 surpluses to be achieved because they may be also financed through resources provided by
11
12 external actors (e.g. IMF, World Bank, the Troika) or through debt management practices with
13
14 neutral budgetary impact.

15
16 The existing literature on bond buyback largely focuses on the first type but, regrettably,
17
18 even this funding method exacerbates austerity as result of the collaterals required by the
19
20 financial donors: an example of this is the Greek bailout. Therefore, this paper provides new
21
22 evidence that bond buyback can also be funded through proper use of creative accounting
23
24 practices without the need for a budget surplus or greater austerity.

25
26 Buybacks have previously been analysed within an economic and financial framework,
27
28 whereas this paper adopts a wider analytical framework that posits that the balance between
29
30 the pros and cons of buyback depends upon the opportunity cost of austerity to citizens, not
31
32 only to the financial market. That opportunity cost is what has to be foregone by using public
33
34 money to buyback bonds instead of using it to finance improved public services. Even though
35
36 the literature showed that creditors benefited more than debtors from bond buyback in previous
37
38 decades (Bulow and Rogoff, 1988, 1991), this is not necessarily the case in the post-2009 fiscal
39
40 crisis era, in which there were other reasons for countries to engage in buyback that could not
41
42 be foreseen by that previous research. The EU's Fiscal Compact provides the new context for
43
44 researching the distribution of benefits between debtors and creditors of bond buyback. For
45
46 heavily indebted EU countries there are profound benefits to be gained by avoiding the very
47
48 considerable financial penalties of failing to conform with the Fiscal Compact's debt reduction
49
50 schedule, perhaps also reducing the possibility of leaving the EU by avoiding the coming to
51
52 power of its internal anti-austerity/anti-EU political parties. These relatively new European
53
54 fiscal rules and austerity-engendered socio-politico dimensions provide a very different
55
56 analytical framework within which to study sovereign bond buybacks and whether they are fit
57
58 for purpose.
59
60

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

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, a~~ 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 ~~is related~~ 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 ~~is based~~ 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 and the~~ Stability and Growth Pact. ~~However, t~~ 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 brake² rule and the

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.

1
2
3
4
5
6 balanced budget³ rule. Countries that meet these new numerical rules are in the ‘preventive
7
8 arm’; otherwise, they are in the ‘corrective arm’. Being in the corrective arm may lead to
9
10 initiation of the Excessive Deficit Procedure, which could also entail financial sanctions ~~being~~
11
12 imposed on ~~EU member states~~ countries. The objective of the preventive arm of the SGP is to
13
14 promote sound public finances and ensure the sustainability of public finances to avoid the
15
16 occurrence of excessive budget deficits - and debt - (Vade Mecum on the Stability and Growth
17
18 Pact, 2016), and through which to restore economic growth conditions. However, ‘thresholds
19
20 have been imposed that, if exceeded, result automatically in austerity measures. The intention
21
22 has been to establish rules beyond the reach of politics and thereby to constrain the state and
23
24 insulate it from democratic pressures that tend in an expansionary direction’ (McBride, 2016,
25
26 p. 7).

27
28 To adhere to these new parameters ‘implies not only upwards migration of standard
29
30 setting to the European level, but also the centralization of standard setting within each EU
31
32 Member State’ (Heald and Hodges, 2015, p. 1009). ~~Overriding such a~~ ~~However, taking the~~
33
34 ~~control of one of the national~~ core national government functions ~~raises~~ a considerable
35
36 ~~sensitive~~ challenge for the EU and its Member States, because it effectively diminishes
37
38 ~~influences~~ the constitutional relationship between ~~among~~ the state and its citizens. The ‘burden’
39
40 of austerity is borne by the general community and so, for them, whether austerity-driven fiscal
41
42 policy is acceptable or not good or bad depends upon the opportunity costs they face.

43
44 Austerity is widely regarded as having led to increased inequality and injustice as a
45
46 result of the reduction in state intervention. In this regard, Bracci et al. (2015) provided a
47
48 detailed overview of the negative economic and social consequences of austerity measures,
49
50 which are in stark contrast with the EU’s welfare model inspired by social justice, equity and
51
52 solidarity (Petmesidou and Guillén, 2014). These outcomes would appear to be incompatible
53
54

55
56 ³ Public budgets are ‘balanced’ when its deficit does not exceed 3% of ~~the~~ GDP, and when the structural deficit
57
58 does not exceed the country-specific Medium-Term budgetary Objective, 0.5% if the debt-to-GDP ratio is equal
59
60 to or higher than 60%, 1% if lower.

1
2
3
4
5
6 with the expectations of many countries when they joined the EU, envisaging benefits of
7 sharing economic prosperity, national security and improved social welfare that far outweighed
8 any possible risks.
9

10
11
12 Unsustainable debt was previously only a matter for creditors and debtors but nowadays
13 Eurozone countries have to fulfil their debt obligations to maintain the integrity of the EU.
14 Thereby, since the adherence to the new governance parameters implied the centralization of
15 standard setting to the European level (Heald and Hodges, 2015), many countries became
16 subject to Troika⁴ assistance programmes without which they would not have been able meet
17 their short-term debt-repayment obligations and so would have defaulted on debt repayment
18 (Agostino and Lapsley, 2013). However, ‘the conditions attached to each tranche of finance
19 have included extreme austerity programmes, such that the dependent economies have
20 experienced increased unemployment, severe economic downturns, social unrest and the
21 migration of skilled workers’ (Cohen et al., 2015, p. 985). ~~Thus~~However, the Troika’s fiscal
22 consolidation approach to debt management applied over such an extended period has revealed
23 its financial, socioeconomic, constitutional and other limitations, disappointing the populace
24 and destabilizing the political scene. Consequently, within this much broader context,
25 assessment of the effectiveness of bond buybacks cannot rely exclusively on financial
26 parameters. Buybacks are beneficial for highly indebted countries to the extent that they help
27 them meet Fiscal Compact requirements, reduce the pressure on their debt-to-GDP ratios and
28 free up financial resources for public services in the long term.
29

30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45 However, considering that this set of rules is applicable only to the national level, and
46 that many European states (e.g. Spain, Italy and Germany) are characterized by several tiers of
47 sub-sovereign issuers empowered to issue and manage their own debt, EU financial stability
48 might not be guaranteed. Domestic stability pacts have been adopted across Europe in order to
49 strengthen the control over local government accounts, but sometimes they went into pre-
50

51
52
53
54
55
56
57

⁴ [The European Central Bank, European Commission and International Monetary Fund.](#)
58
59
60

1
2
3
4
5
6 existing local debt regulation (Monacelli et al., 2016) leading to overlapping regulations.
7
8 Therefore, the concept of sub-sovereignty refers not only to the financial autonomy of the issuer
9
10 but also to the balance of powers between national and supranational rules that govern this
11
12 financial autonomy. The aftermath of European fiscal rules within this framework is that
13
14 regions are effectively unable to manage their debt: municipalities must now seek to reduce
15
16 their levels of debt so that the national government can comply with the Fiscal Compact's
17
18 progressive debt reduction schedule.
19

20 **2. Bond buyback literature review**

21
22
23 Bulow and Rogoff (1988) studied bond buyback schemes in developing countries, critically
24
25 categorising them as a 'boondoggle benefiting a country's creditors' (Bulow and Rogoff, 1988,
26
27 p. 676), meaning an unnecessary, wasteful or fraudulent project. This, they said, is because a
28
29 rational bondholder will require a payment higher than the redemption value of the bond (or its
30
31 market price) in order to sell back to the issuer. Hence, bond buyback raises the market value
32
33 of the debt left outstanding, and consequently it may worsen - rather than improve - the net
34
35 asset position of the sovereign (Claessens and Dell'Ariccia, 2011). For example, in 1987
36
37 Bolivia received \$34 million from the IMF and World bank to buy back its sovereign bonds.
38
39 The face (i.e. redemption) value of those bonds was \$670 million but their market value was
40
41 only six percent of that (i.e. 6 cents on the dollar) and so the market value was just \$40.2
42
43 million. That being the case, Bolivia was supposed to be able to repurchase around 85% of its
44
45 total sovereign debt. However, the 1988 buyback price raised up to 11 cents on the dollar and
46
47 so Bolivia was able to buyback only 46% (Krugman, 1988, 1989; Bulow and Rogoff, 1988,
48
49 1991).
50

51 Although debtor countries are attracted by the possibility to buy back their own debt
52
53 instead of using the same money to pay interest, academics and experts concluded that 'it is
54
55 inadvisable for countries to try to buy out some of their creditors unilaterally through voluntary
56
57 swaps and buybacks' (Bulow and Rogoff, 1988, p. 698). Other scholars subsequently
58
59
60

1
2
3
4
5
6 investigated buybacks from a broader economic (rather than narrow financial) standpoint
7
8 (Krugman, 1988, 1989; Dornbusch, 1988; Rotenberg, 1991; Acharya and Diwan, 1993;
9
10 Claessens and Diwan, 1994; Coe et al., 2005; Marchesi, 2006; Baglioni, 2015). These other
11
12 authors dispute Bulow and Rogoff's conclusion that although 'buybacks stimulate investment
13
14 they still are not likely to benefit debtors' because when 'creditors believe that the buyback
15
16 will stimulate growth, they will demand a higher price in order to sell' (Bulow and Rogoff,
17
18 1991, p. 1219). The consensus of this stream of literature is that the increase in the market price
19
20 caused by bond buyback could be compensated by the following considerations. First, reducing
21
22 the debt overhang effect. Second, reducing the overall cost of debt and future bargaining costs.
23
24 Third, reducing the default costs and the probability of default. Fourth, used as a signal of
25
26 country's willingness to invest, thus having mutual benefits for debtors as well as their
27
28 creditors.

29
30 About half of OECD countries⁵ have undertaken debt buyback operations since the
31
32 1990s but the academic literature has remained predominantly focused on buybacks in
33
34 developing countries. Most developed country research previously focused on the USA and
35
36 UK, giving an account of the impact of the maturity profile of debt that often caused cash flow
37
38 problems for the governments. The results of these studies ~~that~~ suggest the buyback structure
39
40 may be generally successful in minimizing the interest expense rather than the buyback costs
41
42 (Coe et al., 2005; Han et al., 2007). As regards ~~to~~-Europe, a 1996 Bank of Italy survey ~~by the~~
43
44 Bank of Italy found that the percentage of repurchased debt ranged from 0.3% in Italy, to 12%
45
46 in Ireland (Marchesi, 2006). More recently, the Troika required a buyback by the Greek
47
48 government in 2012 (Claessens and Dell'Araccia, 2011; Baglioni, 2015). This 'set a new world
49
50 record in terms of restructured debt volume and aggregate creditor losses, easily surpassing
51
52 previous high-water marks such as the default and restructuring of Argentina in 2001–2005'
53
54 and it could be considered 'the first major debt restructuring in Europe since the defaults

55
56 ⁵ Australia, Austria, Belgium, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, Netherlands, New
57
58 Zealand, Norway, Spain, Sweden, United Kingdom, United States.

1
2
3
4
5
6 preceding World War II' (Zettelmeyer et al., 2013, pp. 515-516). The Greek government used
7
8 €11.3 billion⁶ to retire €31.9 billion of Hellenic Republic's bonds, reducing the debt by €20.6
9
10 billion. However, during the period May to December the average price rose from 0.13-0.18
11
12 cents trading range up to 33.8 cents per Euro (Xafa, 2013; Zettelmeyer et al., 2013).
13

14 Table 1. Increase in prices due to bond buyback

15
16
17
18 [INSERT TABLE 1 HERE]
19

20
21 Source: 1987 Bolivian buyback data has been retrieved from Bulow and Rogoff, 1988;
22 2012 Greek buyback data has been retrieved from Xafa, 2013.
23
24
25

26 Table 1 reports consequences of the increase in prices due to bond buyback. It is
27 interesting how the same practice applied to developing and developed countries leads to the
28 same result: in fact, the Greek and Bolivian cases are subject to the same limitation, namely
29 that the higher bond prices induced by the buyback significantly reduces the financial benefits
30 of this operation.
31
32
33

34
35 Notwithstanding the limitations identified in literature, bond buyback has been
36 regarded by the finance ministers within the Eurozone countries as an important success that,
37 together with the other initiatives agreed (i.e. austerity programme), may put the Greek public
38 finances on a sustainable route by leading to a substantial reduction of the Greek debt-to-GDP
39 ratio (Eurogroup Statement on Greece 13rd December, 2012). In fact, the support of the
40 European Financial Stability Facility (EFSF) needed for that buyback operation was
41 conditional upon implementation of the hardest austerity measures seen so far in the EU. This
42 means that the Greek government buyback should be researched using a much broader
43 analytical framework that extends beyond the conventional narrow technical and financial
44 issues to also consider socioeconomic and politico-constitutional (including human rights)
45
46
47
48
49
50
51
52
53
54

55
56
57 ⁶ Funded by the European Financial Stability Facility (EFSF).
58
59
60

1
2
3
4
5
6 parameters. This much more holistic framework should also be adopted by other countries
7 whose debts are as high a proportion of GDP as was the case for Greece at the start of its Troika
8 bailouts, including Italy.
9

10
11
12 Although Italy's debt/GDP ratio in 2015 was the same as it was for Greece at the first
13 bailout (around 134%, Eurostat data retrieved on 16-02-2018) a bailout by the Troika and/or
14 the EFSF would not be financially feasible, because the absolute amount of debt to repurchase
15 is far greater than of Greece (€2173.3 billion and €311.7 billion respectively). Moreover, the
16 stagnation of Italy's GDP over the last few years means that there seems little chance of fast
17 economic growth reducing the public sector debt to GDP ratio. Since a default on debt by the
18 Italian government could be catastrophic for the Euro, for European banks holding much of
19 Italian government debt and for the Eurozone economy this suggests that the focus will
20 continue to be on implementation of austerity measures by means of contractionary fiscal
21 policy measures. Hence, all possible options for reduction of Italy's debt in both absolute and
22 proportionate terms must be explored, bond buyback included.
23
24
25
26
27
28
29
30
31
32

33
34 This broader austerity context challenges Bulow and Rogoff's recommendation that
35 highly indebted countries should not waste resources in buybacks because creditors will reap
36 the efficiency gains. That and the other previous literature did not address the Fiscal Compact
37 because it did not then exist. In this new EU scenario, bond buyback could become seen as
38 very effective even if municipalities and governments do not make direct financial savings
39 from a buyback deal itself, including when it involves some direct costs.
40
41
42
43
44
45
46

47 **3. Research Methodology**

48
49 Since this EU-wide austerity context was not the reason for the bond buybacks
50 considered in the literature reviewed above, the three main research questions cannot be
51 addressed by recourse to EU-wide quantitative data because member states have not yet
52 systematically engaged in bond buyback and so sufficient data are not yet available. This dearth
53 of available and relevant data means that empirical research seeking to answer the three
54
55
56
57
58
59
60

1
2
3
4
5
6 research questions must be initially small-scale, embedded in qualitative research methods
7 specifically designed to take account of the EU-wide fiscal consolidation. This paper utilizes a
8 qualitative exploratory case study methodology (Yin, 2011) to analyse the 2015 Italian regional
9 government bond buyback within the holistic framework outlined above. The case study
10 investigates the experience of regional municipalities buying back their own debt, as well as
11 the coordinating role played by the Ministry of Economy and Finance (MEF).
12
13
14
15
16
17

18 The analysis covered relevant national and regional legislation (regional laws
19 sometimes diverge), regional council decisions, official documentation and press releases
20 issued by the MEF. In addition, to integrate and understand the information gathered
21 throughout the preliminary documentary analysis, a series of interviews subsequently took
22 place during 2016 including a long-lasting in-depth face-to-face interview with the managing
23 director of the operation at MEF. ~~That The MEF~~ interview lasted 105 minutes, the intention
24 being to verify the hypothesis expressed in the research questions namely that bond buybacks
25 could reduce negative externalities associated with complying with Fiscal Compact and SGP
26 debt reduction austerity rules without being solely reliant upon spending cuts and/or tax
27 increases. Thereafter, a series of interviews via email took place with the heads of finance in
28 the 6 involved regions⁷ ~~of which Italy has 20~~, with the aim of understanding the reasons
29 underpinning their participation at the bond buyback.
30
31
32
33
34
35
36
37
38
39
40
41
42

43 **4. The 2015 Italian regional government bond buyback**

44
45 Consistent with the hypothesis just stated, ~~T~~the 2015 Italian regional bond buyback is
46 an example of debt management operations that did not require a budget surplus, involve
47 cutbacks in public spending cuts or and tax increases ~~for a country within the Euroarea. The~~
48 ~~novelty of this buyback approach is that it does not necessarily require a budget surplus or~~
49 ~~tightening austerity measures to be undertaken.~~ Instead, it utilised ~~adopts~~ an accounting
50
51
52
53
54
55

56
57 ⁷ Italy has 20 regional governments.
58
59
60

1
2
3
4
5
6 engineering approach ~~with a whose effect on the national government budget is~~ neutral or even
7 beneficial ~~effect on the national government budget. The key factor for financing~~ However, to
8 ~~finance~~ the buyback ~~of regional bonds is subject to~~ is the positive evaluation of derivatives
9
10 signed by regional governments in order to hedge the underlying debt, ~~that is the key factor of~~
11 ~~this repurchase operation. The bonds involved in this buyback operation were bullet bonds~~⁸
12 ~~hedged both by sinking funds and by amortizing swaps to guarantee that sufficient money~~
13 ~~would be available to redeem the bond upon maturity, as laid down by Local Government~~
14 ~~financial law No. 448/2001. Sinking funds allow the issuer to repay the principal of the bullet~~
15 ~~bond through a repayment plan rather than in full on the maturity date~~⁹. Amortizing swaps,
16 ~~allow interest rate swaps (e.g. from fixed to floating) during a bond's repayment plan (Lagna,~~
17 ~~2015). By using these derivatives, the bond's notional principal amount decreases over time~~
18 ~~mitigating the risks for the Regions that issued bullet bonds; since the derivatives have to hedge~~
19 ~~an increasingly small part of these bonds, by contrast, their mark-to-market~~¹⁰ tends to increase
20 ~~over time.~~

21
22
23
24
25
26
27
28
29
30
31
32
33
34
35 These derivatives have an important hedging role but their use has not always been
36 appropriate (Corte dei Conti, 2015). Accordingly, their use was prohibited¹¹ for local
37 governments and so regions are no longer able to renegotiate their bonds because derivatives
38 have to be terminated simultaneously with the underlying debt. As an exception to that
39 prohibition, Article 45 of Decree-Law No. 66/2014 subsequently allowed regions to manage
40 derivatives and thus buy back bonds with positive mark-to-market values, this determining the
41 choice of bonds to buyback.
42
43
44
45
46
47
48
49
50
51

52
53 ⁸ Debt instruments whose entire value is paid to the bondholder on the date of its maturity.

54 ⁹ Note that the underlying obligation for the Region remains a bullet bond.

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

57 ¹¹ Law No. 133/2008 imposed a temporary ban on derivatives, subsequently followed by the absolute ban of
58 Law No. 147/2013.
59
60

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

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~~could be 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

1
2
3
4
5
6 Eurozone peripheral debt, replacing it with German sovereign debt (Buch et al., 2016).
7
8 However, it can be difficult to assess the exposure of financiers to financial losses “because it
9
10 is affected by a broad range of activities such as lending, underwriting, trading with
11
12 derivatives” (Asenova and Beck, 2003, p. 196).
13

14 The buyback procedure is depicted in Figure 1. After the bullet bond issue (point ①),
15 the region signs sinking funds and amortizing swaps as required by regulations for municipal
16 debt operations (point ②). Bondholders purchase the bonds recording them in their account
17 books at historical values computed using the spread-at-issuance method, and swap the fixed
18 rate cash flows into floating rate cash flows (point ③). Whenever in Figure 1 ②+③<①
19 buyback guarants debt reduction. In fact, the overall cost falls only when the mark-to-market
20 is positive and so the level of public debt is reduced¹². Only if the above conditions are met can
21 regions buyback their bonds (point ④).
22
23
24
25
26
27
28
29
30
31

32 Figure 1. The regional government buyback scheme

33
34
35 [INSERT FIGURE 1 HERE]

36
37 Source: authors' reconstruction of the links among buyback participants.
38
39

40 5. Buyback's quantitative and qualitative aspects.

41
42 Through these transactions, €3.7 billion of sub-sovereign bonds have been traded, and
43 €4.9 billion have been spent to buy them back. Table 2 shows that the amount paid to
44 bondholders is much higher than the bonds' face value (equivalent to the budgeted historical
45 cost applying the spread-at-issuance method). The first column reveals the spreads (i.e. N basis
46 points over mid-swap) charged over the mid-swap rate by the bondholders. The figures in the
47 second column represent the acquisition prices calculated as the cash price equivalent
48
49
50
51
52
53

54
55
56 ¹² On the contrary, with negative mark-to-market the overall cost is increased and so the level of public debt is
57 increased.
58
59
60

(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 bonds¹³

[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.

1
2
3
4
5
6 public debt (€2232 billion). Table 3 shows the operation is neutral for national government
7 because assets and liabilities are balanced. The percentages set out in the table 3 relate to
8 National and Regional outstanding debt relatively.

9
10
11
12 Table 3. Impact of bond buyback

13
14 [INSERT TABLE 3 HERE]

15
16
17
18
19 Source: authors' elaboration of Ministry of Economy and Finance secondary data.

20
21
22 ~~Considering the occurrence of complex financial instruments, and considering that the~~
23 ~~Consolidated Act of Public Debt¹⁴ allows debt management only for government bonds a new~~
24 ~~rule was issued to finalise the buyback of regional debt: the legal basis for this buyback has~~
25 ~~been the Art. 45 of the Decree-Law No. 66/2014. Because of the convoluted nature of this~~
26 ~~operation, its layout is graphically presented in Figure 1.~~

27
28
29
30
31
32
33 [INSERT FIGURE 1 HERE]

34
35
36
37
38 ~~The use of sinking funds and amortizing swaps is required by debt regulations~~
39 ~~specifically for regional debt operations which entail the issuance of bullet bonds¹⁵ (point ①~~
40 ~~in Figure 1). This is in order to guarantee sufficient money would be available to redeem the~~
41 ~~bond upon maturity. These derivatives allow swapping the nature of the interest rate (e.g. fixed~~
42 ~~to float) of the repayment plan (point ② in Figure 1). However, although these derivatives~~
43 ~~have an important role in the hedging system, their presence is a burden for the entire lifespan~~
44 ~~of the debt. In fact, their fair values are calculated on the basis of the 'mark-to-market', which~~
45 ~~may change values on the balance sheet when market conditions change. In particular, the~~

54
55
56 ¹⁴ Decree of the President of the Republic No. 398/2003.

57 ¹⁵ Debt instruments whose entire value is paid to the bondholder on the date of its maturity

1
2
3
4
5
6 mark-to-market of the derivatives signed by regions has been often negative entailing
7 unreasonable costs (Corte dei Conti, 2015). In other words, regions may not take advantage
8 from reductions in interest rates because derivatives crystallise the financial position, by putting
9 an unjustified overload on public budgets. In addition, regions overused and sometimes
10 abused¹⁶ use of financial derivatives since establishment of their financial autonomy.
11 Considering that bonds and derivatives were tied to each other, the repurchase decision had to
12 be taken into account together with the derivative's mark-to-market, because these 'hedging'
13 derivatives have to be terminated simultaneously with the underlying bullet bonds, meaning
14 that the final cost reflects the bond repurchase cost and the derivative's mark-to-market value.
15

16
17
18
19
20
21
22
23
24 Furthermore, derivatives play an important role even from the perspective of
25 bondholders (point ③ in Figure 1): in fact, around 90% of them were foreign financial
26 institutions, mostly large German and French banks (or Italian branches of those institutions),
27 which purchased the bond issued by regions and used derivatives to swap the nature of their
28 interest rate from fixed to floating. Since bondholders allocated the bonds in held-to-maturity
29 portfolios, according to IAS and IFRS principles, these titles have been accounted for at
30 amortized historical cost by using the 'spread at issuance' method. This is a methodology to
31 assess the value of a bond with the mid-swap used as reference rate plus a given number of
32 basis points (i.e. the spread), which make it possible to compare fixed income assets even
33 denominated in different currencies. This means that the relevant value pertaining to buyback
34 is not the issue price but, instead, the values recorded on banks' books, corresponding to the
35 mid-swap value calculated at the issuance plus N basis points.
36
37
38
39
40
41
42
43
44
45
46

47 Therefore, during the process of price fixing the impact of derivatives on the budgets
48 of both the parties was taken into account. On the one hand, bondholders were required to
49 withstand a loss equal to 1% of the value of bonds recorded on their balance sheet (condition
50
51
52
53

54
55 ¹⁶The courts of auditors detected breaches of the legislation, contractual imbalances, incorrect accounting
56 practices, failure to assess value for money, inadequate managers, and brokers with conflicts of interest;
57 accordingly, the Law No. 133/2008 imposed a first temporary ban on derivatives, followed by an absolute ban
58 in 2013 by the Law No. 147/2013.
59
60

1
2
3
4
5
6 ~~to be eligible for the buyback). On the other hand, the regions, supervised by MEF, opted to~~
7
8 ~~dismiss only the bond-derivative combinations with positive mark-to-market (condition for~~
9
10 ~~choosing the bonds to buyback).~~

11
12 ~~Whenever in Figure 1 $(2)+(3)<(1)$ buyback guaranteed debt reduction. In fact, the~~
13
14 ~~overall cost falls only when the mark-to-market is positive and so the level of public debt is~~
15 ~~reduced¹⁷. Only if the above conditions are met might regions actually buyback their bonds~~
16 ~~(point ④ in Figure 1). The financial resources that regions needed were provided as a mortgage~~
17 ~~at a fixed rate of 2.26% and a subsidy by the MEF, which during 2014 raised them at the~~
18 ~~average rate of 1.35% for such purposes. While the cumulative debt stock has remained steady,~~
19 ~~the operation generates a flow of constant income for the State resulting from the difference~~
20 ~~between the funding average rate and mortgage rate conceded to regions. This revenue stream~~
21 ~~generated a surplus that supported the entire Decree Law allowing a series of measures in the~~
22 ~~field of competitiveness and social justice to be financed. In that sense, the effects of the~~
23 ~~operation went far beyond the buyback itself.~~

24
25
26
27
28
29
30
31
32
33
34 ~~The debt repurchased amounts to €3.7 billion and it has been financed with a €2.8~~
35 ~~billion mortgage and a €403 million subsidy, while the remaining part is debt reduction of~~
36 ~~about €440 million. However, by multiplying the repurchased amount by the repurchase prices,~~
37 ~~it is clear that the amount paid to bondholders is much higher and equal to €4.9 billion as shown~~
38 ~~in Table 2.~~

39
40
41
42
43
44
45 [INSERT TABLE 2 HERE]
46
47
48

49
50 ~~The table is a personal elaboration of MEF data. Note that Campania 2036 e Lombardy~~
51 ~~2032 were originally denominated in dollars, but the table shows the equivalent in Euros~~
52 ~~calculated on the buyback date. The figures in the first column reveal the spread (that is N basis~~
53
54

55
56
57 ¹⁷On the contrary, with negative mark-to-market the overall cost is increased and so the level of public debt is
58 increased.
59
60

1
2
3
4
5
6 points over mid swap) that bondholders recorded in their books, while the figures in the second
7
8 column represent the acquisition prices in terms of cash prices of mid-swap plus the spread at
9
10 issuance and on it a 1% discount has been charged. The differences between the values
11
12 (expressed in millions of Euros) in the third and fourth columns have been financed by means
13
14 of the profits generated by derivatives closure. In other words, the regions were able to raise
15
16 additional resources by monetizing the derivatives with positive mark-to-market, which
17
18 provided €1.7 billion (standing at 34% of the overall cost of the operation). In this way the
19
20 buyback not only reduced their public debt but also simplified their debt structure by
21
22 extinguishing derivatives.

23
24 The impact of this debt reduction is, obviously, limited considering the huge amount of
25
26 cumulative, sovereign together with sub-sovereign, Italian debt (only 0.02% of 2232 billion
27
28 euros), or when compared with the regional debt (only 0.68% of 65 billion euros). However,
29
30 considering the amount of the repurchased debt, this buyback guaranteed a high standard of
31
32 efficiency, since it has made possible a debt relief estimated at 11.89% of the face value.
33
34 Accordingly, the debt reduction that resulted from debt management and creative accounting
35
36 practices aimed to reduce the costs of servicing public sector debt and the derivatives: the
37
38 MEF's ten-year prospectus¹⁸ shows that the expected savings are €1.1 billion.

39
40 From the responses to the interviews made clear it became evident that when bonds
41
42 have been issued between (namely since 1998 up to and 2006) they constituted an effective
43
44 funding method; because the conditions offered by capital market were better than the
45
46 mortgage market. This This high attractiveness has resulted from a greater liquidity and less
47
48 risk (e.g. Region Lombardy's rating was even higher than that of Italy) of bonds compared to
49
50 other funding methods. Indeed, Region Lombardy's rating was higher than that of Italy's
51
52 national government. Nevertheless, they Despite this, they have proved to be vulnerable to
53
54 changes in the market. ∴ In particular, the structure of bullet bonds exposed the regions to

55
56
57 ¹⁸ Available at http://www.mef.gov.it/inevidenza/articolo_0179.html.

1
2
3
4
5
6 excessive risks until maturity of the bond. For example, in one particular case, it was revealed
7 that there were up to 5 derivatives covering a single bond. Significant annual costs have been
8 the effect of this variety: in one particular case it has been estimated as about 12% per year of
9 the underlying bond. ~~Sometimes, t~~ The derivatives' riskiness has ~~also~~ been emphasised stressed
10 by the Court of Auditors, which focused especially upon the collateral structure and the
11 composition of sinking funds. ~~;-o~~ Other risk factors are attributable to "extremely dangerous"
12 (quoting i.e. as defined by the interviewee) legal disputes.

13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

~~-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 were~~ the main reasons prompting that prompted 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 sto 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~~

1
2
3
4
5
6 derivatives obtained an unfavourable assessment, after having granted the financial resources
7 to regions about €5 billion remained unspent. Clearly, if this money served other purposes
8 rather than repurchase bullet bond, public sector debt would have increased: therefore, the Art.
9 45 includes the clause that the unspent funds may not be used except to achieve a reduction in
10 public debt. Clearly, this ~~That makes this new feasible~~ option to finance bond buybacks is both
11 feasible and consistent ~~appropriate~~ with ~~regard to respect for~~ the EU fiscal framework, but at
12 the same time it was also capable of achieving a reducing in total public debt and together
13 with reduction in debt servicing costs; which, in turn, reduced to some extent the need for
14 austerity-induced cutbacks in public spending and tax increases.

15
16
17
18
19
20
21
22
23
24
25 ‘The great strength of this operation is that it made sense not just per se, but it has also
26 allowed a series of measures to promote competitiveness and social justice laid down in
27 the Decree Law No. 66/2014.’ –[name withheld for anonymity]

28
29
30
31
32 These measures include ~~For example, the~~ reduction of the tax wedge on labour (Art. 1),
33 ~~the~~ reduction of taxes for productive activities (Art. 2), and ~~the~~ allocation of additional
34 resources to a tax-free zone in southern Italy (Art. 22 bis). These are being have been (and will
35 be) financed, at least partially, through the flow of revenues resulting from the aforementioned
36 difference in interest rates on State funding and the Regions’ mortgage ~~between the funding and~~
37 the mortgage. ~~This means that engaging in~~ Thus bond buybacks may reduce the likelihood and
38 extent of adverse economic and social impacts of austerity programmes and/or financial
39 penalties imposed for failure to abide by the progressive debt reduction schedule of the Fiscal
40 Compact.

41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
‘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

1
2
3
4
5
6 of that PBF debt and the risks that budgetary savings will not be sufficient to repay the original
7 (higher interest rate) bond issue.

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

17
18
19
20 ~~By answering the question whether bond buyback could help to reduce public sector~~
21 ~~debt without simultaneously resorting to austerity measures, this paper draws out conclusions~~
22 ~~which could be pertinent to the Euroarea. Contrary to the narrowly technical~~ The Bulow and
23 Rogoff ~~conclusion-highly negative boondoggle judgement~~ in respect of ~~individual~~ developing
24 countries' bond buyback programmes adopts such a narrowly technical financial perspective:
25 it is not transferable to, EU member-Member statesStates that, individually and in concert, must
26 observe the SGP and Fiscal Compact or otherwise incur substantial penalties. Bond buyback
27 may also avoid ~~if~~ profoundly adverse austerity-driven consequences ~~are to be avoided and so~~
28 ~~those highly indebted countries would not necessarily waste resources engaging in bond~~
29 ~~buyback. Member states could engage in bond buybacks to avoid or otherwise minimise the~~
30 ~~adverse social and economic effects resulting from public sector austerity programmes,~~
31 ~~otherwise disproportionately focused on cutting spending,~~ whilst also improving the efficiency
32 of their debt management policy and practice, as made clear above. Hence, highly indebted EU
33 countries would not necessarily waste resources by engaging in bond buyback and so its
34 boondoggle characterisation would be invalid.

35
36
37
38
39
40
41
42
43
44
45
46
47
48
49 In fact, ~~there is~~ a range of both financially and politically feasible options is available
50 to ~~member-Member states-States~~ to finance buybacks of their bonds, which in some relatively
51 small way would support efforts ~~member states-efforts~~ to reduce their levels of outstanding
52 ~~governmental~~ debt in order ~~for them~~ to achieve the progressive ~~debt~~ reduction required by the
53 Fiscal Compact. For example, by deploying the unspent funding of €5 billion provided for in
54
55
56
57
58
59
60

1
2
3
4
5
6 Art. 45 (see footnote 13), the Italian sub-sovereign buyback initiative could be extended to
7
8 include buyback of bullet bonds issued by the whole sub-governmental level, not just the
9
10 regions. Rather than cover all such bonds, it could apply only to those with more than 5 years
11
12 residual life (since this is the legislative term of office of Italian governments) which amount
13
14 to about €9.5 billion. This could be easily undertaken because the total amount is restricted to
15
16 only a few bonds. For instance, Piedmont Region has €1.8 billion, Milan city €1.6 billion,
17
18 Rome city €1.4 billion - totalling €4.8 billion¹⁹. The cumulative debt of these institutions is
19
20 more than €24 billion, and a buyback would work for about one fifth of this amount.

21
22 ~~However,~~ When considering buyback, countries have to consider a range of
23
24 contextual factors, ~~and possible future developments.~~ Contextual factors including how bond
25
26 buyback can be financed, who holds those bonds (e.g. pension and insurance funds, domestic
27
28 or foreign banks, investment trusts, financial speculators and other investors) and for what
29
30 purposes they hold bonds, the allocation of bonds between levels of government, the terms of
31
32 bonds (short, medium, long) etc. Countries must also consider possible future developments,
33
34 including Looking forward, the potential for bond buyback may to be affected by expansion or
35
36 contraction of ECB quantitative easing, ratings agencies changing their risk
37
38 gradingdowngrading of economies and governments, any conditions set on assistance from the
39
40 IMF and other funding bodies that could restrict buyback's effectiveness etc. ~~Some issues have~~
41
42 ~~become relevant since the regional government buyback (ECB quantitative easing for example)~~
43
44 ~~and others are yet to become relevant (inclusion of sub-national government debt in the Fiscal~~
45
46 ~~Compact rules in 2020).~~ All these parameters must be considered in coming to a decision
47
48 whether buyback is sustainable in EU member states.

50 Acknowledgments

51
52
53 [INSERT ACKNOWLEDGMENTS HERE]
54
55

56
57 ¹⁹ MEF secondary data.
58
59
60

References

- Acharya, S. and Diwan, I. (1993), Debt buybacks signal sovereign countries' creditworthiness: theory and tests, *International Economic Review*, 34, 795–817.
- Agostino, D. and Lapsley, I. (2013), City-charity partnerships and the financial crisis: case study evidence, *Public Management Review*, 15, 633-656.
- Asenova, D., and Beck, M. (2003), The UK financial sector and risk management in PFI projects: a survey, *Public Money and Management*, 23, 195-202.
- Baglioni, A. (2015), Leveraged Buybacks of Sovereign Debt: A Model and an Application to Greece, *Contemporary Economic Policy*, 33, 87-103.
- Bailey, S.J., Valkama P. and Salonen, S. (2014), The EU's public finance crisis: causes, consequences and cure, *Public Money & Management*, 34, 83-90.
- Baudouin, R, Silva, A.C., Akcadag, O. and Raghavan I. (2015), *Bond buybacks and exchanges: background note* (World Bank Group).
- Bracci, E., Humphrey, C., Moll, J. and Steccolini, I. (2015), Public sector accounting, accountability and austerity: more than balancing the books?, *Accounting, Auditing & Accountability Journal*, 28, 878-908.
- Buch, C. M., Koetter, M. and Ohls, J. (2016), Banks and sovereign risk: A granular view, *Journal of Financial Stability*, 25, 1-15.
- Bulow, J. and Rogoff, K. (1988), The buyback boondoggle, *Brookings Papers on Economic Activity*, 1988, 675–704.
- Bulow, J. and Rogoff, K. (1991), Sovereign Debt Repurchases: No Cure for Overhang, *Quarterly Journal of Economics*, 106, 1219-1235.
- Claessens, S. and Dell'Ariccia, G. (2011), Are Buybacks an Efficient Way to Reduce Sovereign Debt?, *VOX* (<http://voxeu.org>).
- Claessens, S. and Diwan, I. (1994), Recent experience with commercial bank debt reduction: Has the “menu” outdone the market?, *World Development*, 22, 201-213.
- Coe, P.J., Pesaran, M.H. and Vahey, S.P. (2005), The Cost Effectiveness of the UK's Sovereign Debt Portfolio, *Oxford Bulletin of Economics and Statistics*, 67, 467-495.
- Cohen, S., Guillamón, M. D., Lapsley, I. and Robbins, G. (2015), Accounting for austerity: the Troika in the Eurozone, *Accounting, Auditing & Accountability Journal*, 28, 966-992.
- Corte dei Conti (2015), Indagine conoscitiva sulle tematiche relative agli strumenti finanziari derivati (<http://www.corteconti.it>).
- Dornbusch, R. (1988), Comments and discussion on: The buyback boondoggle, *Brookings Papers on Economic Activity*, 1988, 699–704.
- European Commission (2016), Vade Mecum on the Stability and Growth Pact, *European Economy Institutional Papers* (<http://ec.europa.eu>).

- 1
2
3
4
5
6 Fingland, L. and Bailey, S.J. (2008), The EU's Stability and Growth Pact: Its Credibility and Sustainability,
7 *Public Money & Management*, 28, 223-230.
- 8
9 Han, B., Longstaff, F.A. and Merrill, C. (2007), The U.S. Treasury Buyback Auctions: The Cost of Retiring
10 Illiquid Bonds, *The Journal of Finance*, 62, 2673-2693.
- 11
12 Heald, D. and Hodges, R. (2015), Will austerity be a critical juncture for European public sector financial
13 reporting?, *Accounting, Auditing & Accountability Journal*, 28, 993 – 1015.
- 14
15 IFAC (2017a), *Handbook of International Public Sector Accounting Pronouncements, Volume I*, (International
16 Federation of Accountants).
- 17
18 IFAC (2017b), *Handbook of International Public Sector Accounting Pronouncements, Volume II*,
19 (International Federation of Accountants).
- 20
21 Krugman, P. (1988), Financing vs. forgiving a debt overhang, *Journal of Development Economics*, 29, 253-
22 268.
- 23
24 Krugman, P. (1989), Market-based debt reduction schemes, in: Jacob A. Frenkel, Michael P. Dooley and Peter
25 Wickham (ed), *Analytical Issues in Debt* (International Monetary Fund).
- 26 [Lagna, A. \(2015\), Italian municipalities and the politics of financial derivatives: rethinking the Foucauldian](#)
27 [perspective, *Competition and Change*, 19, 283-300](#)
- 28
29 Lewis, J.D., and Viñals, J. (2014), *Revised Guidelines for Public Debt Management* (International Monetary
30 Fund).
- 31
32 Marchesi, S. (2006), Buybacks of domestic debt in public debt management, *The European Journal of Finance*,
33 12, 379-400.
- 34
35 McBride, S. (2016), Constitutionalizing austerity: Taking the public out of public policy, *Global Policy*, 7, 5-
36 14.
- 37
38 Monacelli, D., Paziienza, M.G. and Rapallini, C. (2016), Municipality Budget Rules and Debt: Is the Italian
39 Regulation Effective?, *Public Budgeting & Finance*, 36, 114 -140.
- 40
41 Petmesidou, M. and Guillén, A.M. (2014), Can the welfare state as we know it survive? A view from the crisis-
42 ridden south European periphery, *South European Society & Politics*, 19, 295-307.
- 43
44 Rotenberg, J.J. (1991), Sovereign debt buybacks can lower bargaining costs, *Journal of International Money*
45 *and Finance*, 10, 330–348.
- 46
47 Xafa, M. (2013), Life after Debt, *World Economics*, 14, 81-102.
- 48
49 Zandstra, D. (2011), The European sovereign debt crisis and its evolving resolution, *Capital Markets Law*
50 *Journal*, 6, 285-316.
- 51
52 Zettelmeyer, J., Trebesch, C. and Gulati, M. (2013), The Greek debt restructuring: an autopsy, *Economic*
53 *Policy*, 28, 513-563.
- 54 [Zorzetto, U. \(2018\), *The use of derivatives contracts by Italian local authorities* \(Ca' Foscari University of](#)
55 [Venice\).](#)
- 56
57
58
59
60

1
2
3 Using Italian regional government case study qualitative research methods, our results
4 demonstrate how ~~recently introduced~~^{new} EU fiscal rules may legitimise bond buyback in ~~its~~^{the}
5 current fiscal austerity context, and how buyback ~~might~~^{can} be ~~a~~^a fit for purpose tool to help manage
6 heavily constrained public finances, with a beneficial overall impact contrary to the longstanding
7 negative boondoggle characterisation. In so doing, the paper takes account of the growing excessive
8 presence of financial ~~of~~ derivatives in public accounts and of the development of as well as dealing
9 ~~with~~ sub-sovereign fiscal decentralisation, both of which ty issues that are possibly changing
10 significantly the operation game of debt management for countries like Italy.
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

For Peer Review Only

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Keywords

bond buyback

fiscal consolidation

public sector austerity

debt management

creative accounting

For Peer Review Only

Table 1. Increase in prices due to bond buyback

	Bolivian Buyback	Greek Buyback
Average price debt before the buyback	0.06 \$	0.16 €
Average price debt included in the buyback	0.11 \$	0.34 €
Growth rate	83.3%	112.5%

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*

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

Source: Ministry of Economy and Finance secondary data.

The table is the authors' elaboration of MEF data.

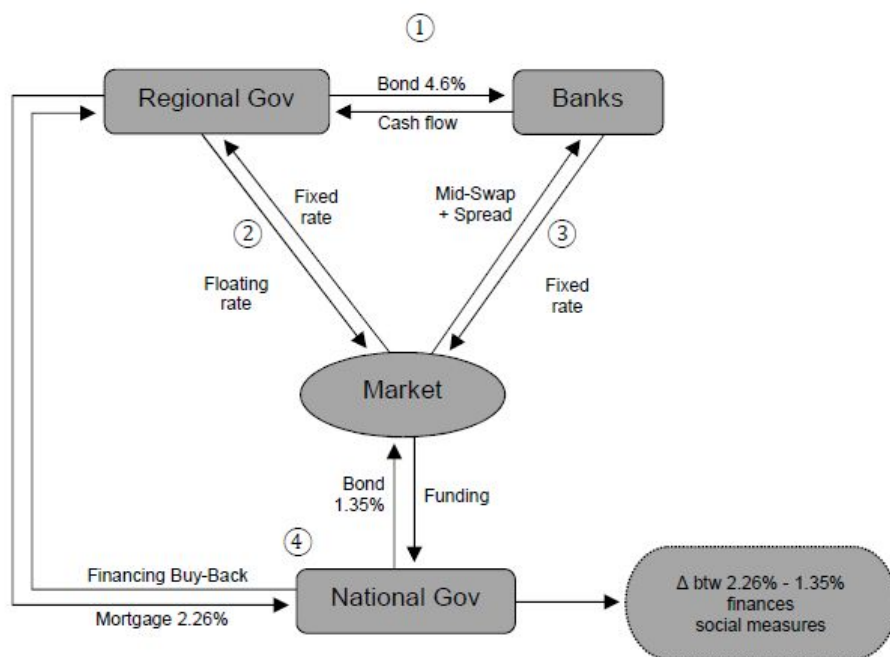
* The initial budget for bond buyback amounted to €8.7 billion because it also envisaged repurchase of the debt of Abruzzo, Piedmont and Val d'Aosta. However, unfavourable assessment of their derivatives resulted in about €5 billion remaining unspent.

Table 3. Impact of bond buyback

	<u>National level</u>	<u>Regional level</u>	
<u>Outstanding debt</u>	<u>€2167 bn</u>	<u>€65 bn</u>	
<u>Bonds bought back</u>	<u>-</u>	<u>5.69%</u>	
<u>Funding</u>	<u>0.15%</u>	<u>-</u>	
<u>New mortgage</u>	<u>0.13%</u>	<u>4.31%</u>	
<u>Subsidy</u>	<u>0.02%</u>	<u>0.62%</u>	<u>1.38%</u>
<u>Debt reduction</u>	<u>-</u>	<u>0.77%</u>	

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.

Preview Only