Neglect Private Debt at the Economy's Peril

Applying Balance Sheet Recession Analysis to the Post Bail-in Cyprus Economy

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ABSTRACT

The authors discuss the role of private debt in financial crises and attempt to apply the debt deflation logic to the data and facts surrounding the post bail-in years in Cyprus. It is found that the financial crisis in Cyprus was indeed predictable and that a key problem facing the country remains that of avoiding a balance sheet recession which threatens to impede sustainable economic growth. Another interesting finding is that for the three years after the bail-in Cyprus households have been living off their savings rather than making the required additional savings to reduce their debt and restore balance sheet positions. With greater forced or needed savings and the resultant contraction of aggregate demand a downward spiral of debt/deflation can inevitably be expected to set in along lines expounded most notably by Richard Koo. In addition policy recommendations aimed at countering the onset of a balance sheet recession are advanced.

Keywords: balance sheet recession, debt deflation spiral, sustainable growth, debt minimization, dissaving, aggregate demand, credit risk.

JEL codes: D61, G17, G21, G32, G33, H43

Private Debt and Financial Crises

Policy-makers and the mainstream economic literature largely neglect the role of private debt developments in causing financial crises and subsequent prolonged recessions. This is the case in Cyprus where in contrast Government debt remains the main concern of policy-makers including the "troika". Such a situation prevails despite the predominant view that the prime culprit causing the financial crisis was the very rapid growth of private debt growth and its wasteful use[1]. Moreover, the current extremely high level of private indebtedness (over 350% of GDP) is still "the elephant in the room" when prospects and remedial policies for the Cyprus economy are discussed.

Accordingly, against this background and applying the approach of writers such as Richard Vague, Richard Koo and Michael Hudson[2] who argue convincingly the role of private debt in causing financial crises and recessions, the authors analyse the damaging impact of huge private debt on the Cyprus economy and advance recommendations for dealing with this problem.

Vague and Keen argue, based on historical evidence, that when the ratio of private debt to GDP in advanced economies increases by more than 18% over a 5-year period coupled with such debt being above 150% of GDP an "excess credit point" is reached, which usually results in a financial crisis and a following recession. This is because as the growth of debt rises relative to that of production it becomes more difficult to deploy new loans in financing viable projects that provide the income to service the debt. Credit becomes increasingly used to finance speculative ventures that rely sometimes entirely on rising asset prices, especially of real estate and shares, to generate the gains to repay debt. A "bubble economy" eventually results and its pricking through a sharp fall in asset prices plunges many debtors into negative equity positions leading in turn to a surge in Non-Performing Loans (NPLs). Credit growth decelerates sharply as debtors are unable and even unwilling to take on new credits and as banks, given the adverse economic conditions, also become more risk-averse in their lending behaviour. And with credit-financed demand contracting, production and incomes fall resulting in a recession that causes a downward spiral in bank financing and aggregate demand[3]. In addition, prices of goods and services inevitably begin to decline resulting in a debt/deflation spiral as real value of debt rises causing greater problems in repaying debt and depleting the spending power required to support economic activity.

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[1] See: Manison, Savvides (2016) and Savvides (2016)
[2] Vague (2014), Koo (2015), Hudson (2011)
[3] Fisher, Irving, 1933

Richard Koo focuses attention on how following the bursting of the debt-financed bubble economy a prolonged recession can result as happened in the United States in the 1930s and in Japan in the 1990s[4]. He argues that with the collapse of the bubble economy asset prices decline steeply causing private sector balance sheets (both for companies and households) to go into negative equity territory or as Koo calls it "underwater". That is, in very simple terms, when the value of one's debt-financed house falls below that of the outstanding balance of the mortgage loan or when the loan obligations of a company exceed total assets. In order to regain their financial health and credit ratings, households and businesses are forced to repair their balance sheets by paying down debt in effect increasing their savings to do so. Indeed Koo stresses that a large portion of the private sector aims at minimizing debt instead of maximizing profits following the bursting of a nation-wide asset price bubble. And with the act of deleveraging, aggregate demand is reduced throwing the economy into a very special type of recession, which Koo has termed a "balance sheet recession".

Balance Sheet recession analysis applied to Cyprus

Applying the above type of analysis to the Cyprus economy reveals some interesting results and observations. In the period leading up to the financial crisis the ratio of private debt of Cyprus entities to GDP rose by nearly 24% over the five years to 2009 increasing from 261.4% in 2004 to 310.9%, thus reaching beyond Vague's excess credit point. This large increase was reflected mainly in the very rapid growth of bank loans to both Non Financial Corporations (NFCs) and households which fuelled a construction boom that was associated with an estimated rise in house prices of almost 30% between 2004 and 2009.

Table 1 - Cyprus Debt - Non-Financial Corporations and Households

Cyprus Debt	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Non-Financial Corporations												
Billions of Euro	24.9	27.0	27.6	38.5	35.6	37.2	39.2	42.0	39.5	38.9	39.5	39.8
% of GDP	**178.9%**	**180.8%**	**172.6%**	**173.5%**	**186.9%**	**198.3%**	**203.0%**	**212.8%**	**203.3%**	**214.9%**	**224.7%**	**225.6%**
Households												
Billions of Euro	11.1	12.8	14.2	16.4	18.9	20.3	22.7	22.6	24.6	23.1	23.0	22.8
% of GDP	**80.6%**	**86.9%**	**89.4%**	**94.4%**	**100.4%**	**109.8%**	**117.6%**	**114.5%**	**126.4%**	**127.5%**	**130.9%**	**129.3%**
Total private Debt												
Billions of Euro	36.0	39.8	41.8	46.9	54.5	57.5	61.9	64.6	64.1	62.0	62.5	62.6
% of GDP	**261.4%**	**270.2%**	**263.2%**	**269.9%**	**289.6%**	**311.1%**	**320.7%**	**327.4%**	**329.4%**	**342.2%**	**355.7%**	**354.9%**
GDP												
Billions of Euro	**13.77**	**14.73**	**15.88**	**17.38**	**18.82**	**18.48**	**19.30**	**19.73**	**19.46**	**18.12**	**17.57**	**17.64**
House Prices												
Index 2000=100	**81.9**	**90.5**	**96.2**	**107.5**	**113.5**	**106.1**	**100.0**	**98.4**	**95.4**	**91.5**	**89.9**	**91.0**
Private Saving Ratio	N/A	N/A	N/A	N/A	**2.8%**	**9.2%**	**12.4%**	**16.1%**	**12.3%**	**10.1%**	**5.9%**	**6.0%**
Sources: Eurostat; Dataset; Central Bank of Cyprus												

However, by 2008/2009 the stock of residential properties had reached a point of over-supply, especially given the adverse impact on housing demand stemming from the global financial

[4] Koo (2015)

crisis and the depreciation of the pound sterling against the euro. And it was in 2009 that the real estate and construction bubble began to be punctured as house prices fell by 6.6% and construction activity collapsed by 17.8% contributing to a decrease in real GDP of 1.8%. But a fully-fledged financial crisis accompanied by recession in the real economy was yet to develop with the Cyprus authorities pursuing a policy of benign neglect in the face of rapid and wasteful credit expansion. In fact between 2009 and 2011 real GDP increased by 1.7% as bank credit and deposit liabilities continued their spectacular rises with the private debt to GDP ratio climbing to 327.3%, that is more than 24% above its level of five years earlier.

By 2012 the weak Cyprus banking sector had become grossly oversized with assets of over 650% of GDP and heavy exposure to the collapsing construction and real estate sectors, as well as to Greece. The Greek debt restructuring, together with realized and prospective loan losses in both Cyprus and Greece, resulted in an assessment that the two largest banks were insolvent, triggering a loss of confidence and culminating in a banking crisis. And with the Government having lost market access to funds and running a sizeable deficit the banks could not be bailed out by the sovereign.

This critical situation resulted in a three-year economic adjustment program being agreed with the "troika" in early 2013 whereby funding was provided to the Government in exchange for fiscal measures and reforms to ensure government debt sustainability and for the restructuring and recapitalizing of the credit cooperatives. In contrast troubled banks were not bailed out, but restructured and recapitalized through the participation of bank creditors, that is, a "bail-in" including uninsured depositors. This was the first occasion whereby the uninsured depositors of a systemically important bank had been subject to a "haircut" or an expropriation of their deposits.

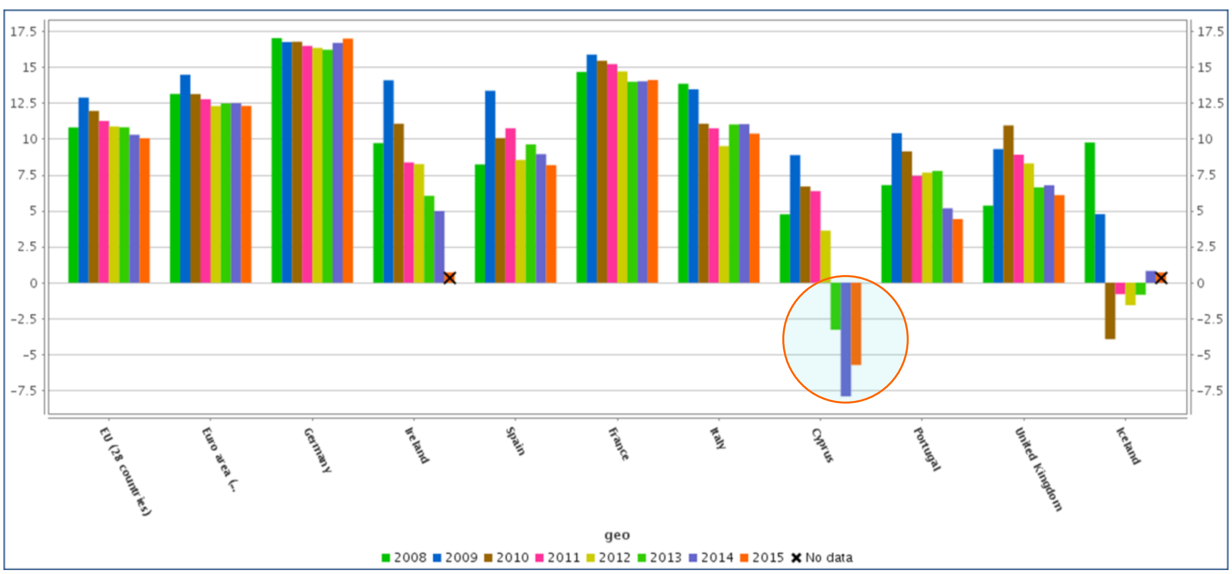
The loss of confidence in banks and the resultant outflow into cash and assets held abroad combined with the imposition of fiscal austerity to weaken an already declining private sector economy. A deep recession ensued with real GDP contracting by 7.4% between 2012 and 2014.

However, during these years the festering problems being caused by extremely high levels of private sector debt, particularly in hampering the undertaking of investment projects, were not effectively dealt with and there seems to have been little adjustment of the Cyprus economy along the lines articulated by Koo. In fact, bank credit outstanding to the private sector fell back only modestly from mid-2012 onward with the private debt to GDP ratio rising to over 350% by

2015. Indeed the process of debt minimization postulated by Koo has hardly taken place in Cyprus with NPLs mounting and only little debt restructuring at least up to early 2015 and virtually no property foreclosures. Furthermore, from 2014 onward there has been a strong tendency on the part of many debtors to maintain or even increase their private consumption rather than service their debt and pay other obligations such as income and property taxes. That is, in Cyprus there has not been the increase in private saving to effect the debt repayments required to significantly decrease the private debt to GDP ratio. Contrary to the analysis of Koo, aggregate demand appears not to have been reduced to any considerable degree by deleveraging. This has meant that the revival of private consumption in conjunction with the boost to external demand from tourism has enabled Cyprus to escape, for now, the type of "balance sheet recession" described by Koo.

The above analysis for Cyprus is supported by data for the private savings ratio which show it falling steadily since 2011 to reach a very low estimated level of 6% in 2015 (see Table 1). In the three years from 2012 to 2015 the private saving ratio averaged 7.3% compared with 13.6% in the three prior years. Eurostat data for the saving behaviour of Cyprus households shows their saving ratio on a steep decline in recent years, with households dissaving in the period 2012 to 2015 (Figure 1).

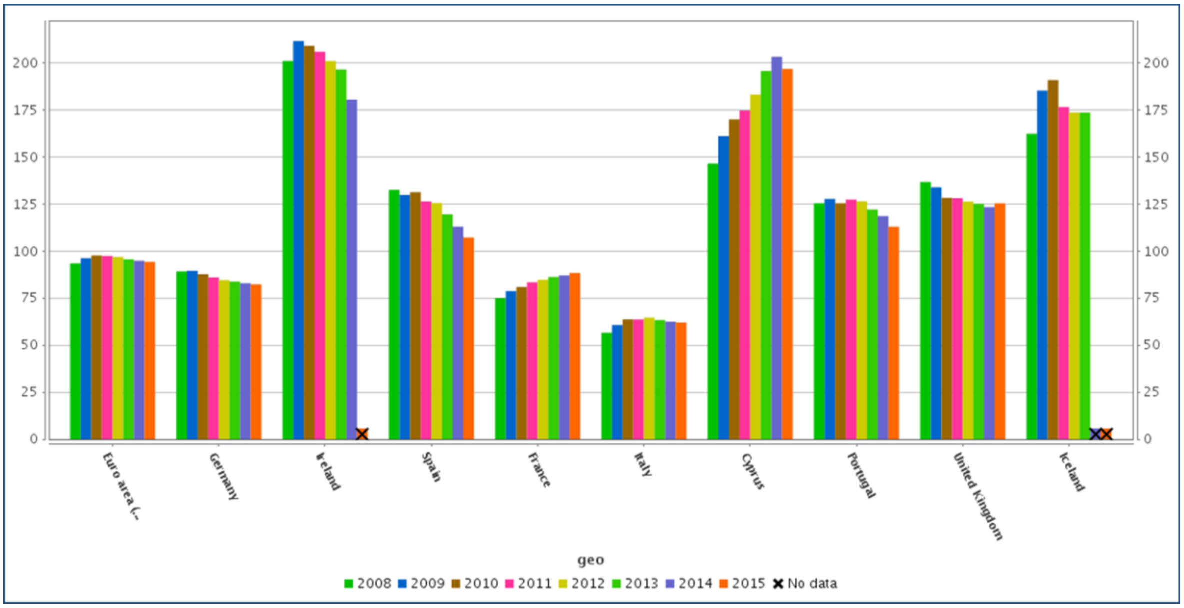
Figure 1 - Household Saving Rate - %[5]



5 Eurostat: http://ec.europa.eu/eurostat/tgm/graph.do?tab=graph&plugin=1&pcode=tsdec240&language=en&toolbox=data

The experience of Cyprus contrasts, at least for the household sector, with that of some other financially distressed countries (Figure 2). In Spain, for example, the household saving ratio has been maintained at levels of 8% to 10% from 2010 to 2015 to facilitate deleveraging and enable a reduction in the household debt to income ratio to 107% in 2015 from 131% in 2010. In contrast, Cyprus with its low and diminishing level of household saving has failed to curtail the rise in the household debt to income ratio, which rose from 170% in 2010 to over 200% in 2014 with only a small fall occurring in 2015 to 196%.

Figure 2 - Gross debt-to-income ratio of households - %[(6)]



There is no specific data publically available on the saving behaviour of Non-Financial Corporations (NFCs) in Cyprus. However, information on the activities and financing of NFCs indicate that domestic business units did relatively little, at least up to end-2015, and not much more thereafter, to repair their balance sheets by engaging in substantial deleveraging involving increased saving to repay their huge debts. Loans outstanding to NFCs of domestic residents fell only modestly from €24.6 million or 126.3% of GDP at end of 2012 to €22.1 million or 124.6% of GDP at end- 2015, with part of this decline being accounted for by debt write-offs. And given that there was just a small rise in new loan approvals owing importantly to the lack of creditworthy customers, the relatively small decrease in credit outstanding to domestic NFCs reflects largely the low amount of actual debt reduction by these enterprises.

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[6] Eurostat: http://ec.europa.eu/eurostat/tgm/graph.do?tab=graph&plugin=1&language=en&pcode=tec00104&toolbox=type

The Misdiagnosis of the Financial Crisis in Cyprus

The large increase in the NPLs of NFCs over this period attests to the considerable shortfalls in adhering to debt servicing obligations and in deleveraging, a development attributable in part by some to the so-called "strategic defaulting". However, this argument is not substantiated by the facts as strategic defaulting can only take place when the borrower actually can repay and chooses to default on repayments. Cyprus Central Bank officials contend that there is relatively little actual strategic defaulting by NFCs, but that many enterprises delay repaying because of prevailing weak economic conditions and/or until they manage to obtain a satisfactory debt restructuring deal. The viewpoint that there is much strategic defaulting by the NFCs, however, inevitably is used to put further pressure on corporations to abide to the demands of the banks and even to force the enactment of legislation which further enhances and speeds up the collection/recovery process. Accordingly, with a multitude of NFCs failing to significantly deleverage and repair their balance sheets with funding from increased savings and banks not writing-off debt and foreclosing on property mortgages to any significant degree, many financially fragile firms have continued to survive and operate. This has helped to prop up domestic demand, but consequently not contribute towards an effective balance sheet recession.

In fact in analysing the private debt situation in Cyprus the European Commission in their latest country report on Cyprus state that “the persistently high proportion of NPLs, even as deleveraging takes place in certain sectors, suggests the presence of “zombies” or unproductive firms whose compliance is overlooked by creditors, hampering the adjustment process”[7]. They add without supporting evidence that "these unprofitable companies, notably in the real estate and construction sectors, distort competition throughout the economy by congesting the market in which they participate and depress market prices for their products” and contend that these so-called zombies should be pushed into bankruptcy by calling in their non-performing loans. This in turn, the report argues, would encourage entry and investment of new firms and for banks to see “particularly good lending opportunities”. They term this process “creative destruction” and argue that it is needed to speed-up adjustment and get the economy out of a deflationary trap.

[7] European Commission (2016)

We consider the Commission analysis flawed and not in accord with reality where among other things most NFCs (not just those in the real estate and construction sectors) in Cyprus are heavily indebted and have little if any remaining equity. In Cyprus today, this is the rule rather than the exception. Moreover, given the very low level of bank provisions against losses (between 35%-40% coverage of NPLs) and the overwhelming number of non-performing loans the adjustment process of what they call a "creative destruction" would probably only bring forth another financial crisis. Destruction is never creative, but be that as it may, such an argument can only be made where the core economy (bulk of productive enterprises) is fully functioning and is therefore able to sustain the adjustment process. In Cyprus the economic conditions are lacking and opportunities for viable investment projects are few and far between. The main reason is a weak and diminishing domestic demand, except in tourism where the problem is on the supply side as well as the instability of financial institutions. This is accentuated by a reluctance, if not a rather understandable unwillingness, for current indebted firms to borrow on their underwater balance sheets. Therefore, even if a financial crisis does not eventuate, if no proactive action is taken, the prospect is one of a long and hard recession as households and firms (sometimes against all odds given the exceptionally high level of private debt) attempt to repair their balance sheets.

At least for restoring the financial health of the many debt-laden, but potentially profitable NFCs in Cyprus an adjustment process supporting positive growth is needed. But not one of "**creative destruction**" as advocated by the European Commission in their report and implicitly supported by the ECB in their policy-related supervision of Cyprus banks, but rather one of “**creative reconstruction**” which would thoughtfully put in place the means and the capacity necessary to contribute in a sustainable manner to potential growth. Through this process and given the balance sheet problems suffocating the economy the aim should be to provide financing where appropriate based on viability and repayment capability **off-balance sheet**. In other words through applying strict "Project Finance" criteria and by creating new Special Purpose Vehicles (SPVs) for this purpose. These new companies must have a viable business plan and a positive cash flow and will be burdened only with as much debt as it is deemed reasonable for them to carry. In this connection some policy recommendations are put forward in the "Policy and Strategic Options" section below.

Current Economic and Financial Situation

By the final quarter of 2016 the Cyprus economy was characterised by GDP increasing at a rate of 2.5 to 3.0% per annum owing mainly to the very fast growth of tourism and the maintenance of private consumption at a high level, the latter partly supported by dissaving in the post bail-in years (as indicated in Figure 1). Deflation was persisting, though decelerating marginally, with consumer prices in November 2016 at 1.4 % below the level of a year earlier and property prices still in decline. At the same time rates of private and public investment were at very low levels with minimal bank financing of new investment projects. The Government budget was broadly in balance, but the public debt has risen during 2016 to over 109% of GDP by end-September.

These developments, however, have taken place against the background of a fragile banking sector where loans to the private sector at end-September amounted to around 290% of GDP, more than half of which were non-performing. Moreover, the ratio of private debt to GDP still stood at over 350% in mid-2016, strikingly reflected by a very large number of business enterprises and households drowning in debt, with the process of deleveraging described by Koo not occurring to any significant extent.

Thus, while Cyprus has escaped a balance sheet type recession following the financial crisis, some of the ingredients are there in the form of huge levels of private debt and NPLs as well as insufficient coverage against realised and prospective loan losses for Cyprus to experience another financial crisis, particularly if policy-makers continue to remain complacent in dealing with the private debt problem. And in the event of the remedial action being required to overcome the crisis such as greater forced saving to enable substantial deleveraging and higher bank provisioning, aggregate demand would be likely to suffer a substantial reduction, with the prospect of a balance sheet recession becoming increasingly probable. But can appropriate Government policies be devised to counter the prospect of another deep recession which could be considerably longer in duration if left unchecked?

Policy considerations and strategic options

Minsky, Koo, Vague, Keen, Hudson[8] and many other scholars who have studied in depth the importance of private debt and the inevitable onset of balance sheet recessions following financial crises clearly come to the conclusion that *austerity* in such circumstances can only worsen and delay economic recovery. In periods such as these, where *profit maximization* takes second fiddle to the need for *debt minimization* the economy falls into a debt recession cycle unless the Government steps in and raises aggregate demand by running a deficit. This is necessary so as to compensate for the loss of income and the reduction in GDP that results from the fact that economic agents (households and companies) are at the same time using a considerable part of their available cash flow to lower their debts in an effort to restore their depleted equity positions.

In the Cyprus context, contrary to the views of Ministry of Finance officials and the European Commission, there exists considerable scope and potential resources for raising productive government expenditures partly through using the ample funding available from EU institutions and by raising revenue through a serious cleaning-up of the very large reported and hidden unpaid taxes. In this connection the Cyprus Accountant General's Financial Report for 2015 states that tax arrears on reported transactions amounted to €1.74 billion or just under 10% of GDP at end-2015[9]. In addition, in Cyprus there is a large underground or untaxed economy estimated to be over 25% of official GDP which escapes taxation on income and other taxable transactions[10]. Indeed, the surpluses in the private sector including those arising from tax evasion and possibly hidden foreign deposits and other assets need to be tapped through strengthened tax administration and much stricter and uniform enforcement of laws and regulations.

The real problem in balance sheet recession situations is the lack of sound and willing credit-worthy borrowers as the economic agents replace the profit maximisation with a debt minimisation and reduction objective. Entrepreneurs are unwilling to undertake investment projects if there is not the prospective demand for the new output in the first place. But even banks are rightly not keen to lend to borrowers, even if some are willing to take on new debt,

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[8] Minsky (1986), Koo (2015), Vague (2014), Keen (2011), (Hudson (2012)
[9] Financial Report 2015, http.www.treasury.gov.cy
[10] Schneider Friedrich(2015)

given the state of their balance sheets and in conditions of non-viability and poor repayment capability. Lending to such entities therefore is more likely to worsen rather than enhance the prospects for a steady and sustainable economic recovery.

Accordingly, we would argue that in addition to the need to raise aggregate demand there are reasons for overhauling institutional arrangements so that, through productive solutions, viable investment projects can be identified, formulated and financed. Indeed, economic development results from capital investment being channelled towards viable businesses and projects[11] and not from funding non-viable investments. Such projects are scarce when the economy is faltering in the midst of weak domestic demand which stems in part from harsh fiscal austerity and whose full effect has not been felt yet because of the dissaving of households.

It should be noted that the Cyprus Ministry of Finance went beyond the requirements for reducing budget deficits under the Memorandum of Understanding agreed with the "troika" by contracting government expenditure and raising revenue by much more than was specified over the program period 2013 to 2016. The initial adjustment programme had called for the government overall and primary deficits as ratios to GDP to be reduced from 5.6% and 2.1%, respectively, in 2012 to an overall deficit and primary surplus of 2.4% and 1.2%, respectively, in 2016. In the event, the overall deficit had been reduced to 1.1% of GDP by 2015 with approximate balance expected in 2016, while a primary surplus of 1.7% of GDP was recorded in 2015 and a surplus of around 2% of GDP is foreseen for 2016[12].

Tourism is relatively immune from the weak demand syndrome that pervades the local economy and has been boosted of late by the strong demand from foreign tourists. The potential of tourism to take the country out of the debt-deflation and balance sheet recession predicament has been highlighted often by the authors[13]. However, substantial investment in tourism-related infrastructure and private sector projects has not been forthcoming, and surely not at a rate which would significantly expand capacity and upgrade standards in the industry in order to sustain its recent rapid growth.

[11] Savvides (2014).

[12] Cyprus Ministry of Finance, Public Finance statistics, http.www.mof,gov.cy

[13] Manison, Savvides (2016) and Savvides (2016)

Given the above, we have advocated for the creation of institutions, such as an independent Development and Finance Agency (DFA)[14] with sufficient Government funding and lines of credit from multilateral financing institutions so as to pave the way and ease this restructuring and new investment effort through viable newly created business entities[15]. This new, totally professional, institution is to be enacted by special legislation and staffed by professional experts in the financing of development projects and will therefore be totally independent of political influence or outside interference. Through its project financing skills and appropriate funding it is envisaged to gradually provide the means for attaining the twin objectives **and conditions precedent** for getting the country back on the road of economic development:

1. *of **re-channelling back into the economic flow the lost income** that goes into the deleveraging of the banks and repairing of the economic agents' balance sheets,* and also,
2. *of ensuring, as much as possible, that new **capital investment is directed towards viable projects***[16].

In addition, the DFA should also be a valuable advisor **sanctioning public sector investment projects** and, last but not least, in providing critical expert assistance to the Government in structuring Public-Private-Partnerships (PPPs) in a manner that ensures the **maximisation of public interest** and in serving the objective of economic welfare.

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[19] Source: Eurostat, http://ec.europa.eu/eurostat/tgm/graph.do?tab=graph&plugin=1&language=en&pcode=tec00104&toolbox=type

[20] Source: Eurostat, http://ec.europa.eu/eurostat/tgm/graph.do?tab=graph&plugin=1&pcode=tsdec240&language=en&toolbox=type