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THE GREEK DEBT CRISIS: SUGGESTED SOLUTIONS AND REFORMS

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Abstract

This paper examines eight suggested solutions to the Greek debt crisis and six political and institutional reforms in order to achieve a single objective: eliminate deviations from the EU benchmark and thus transform the country into a modern EU state. In the absence of a national political consensus to tackle the debt crisis and implement political and institutional reforms, a new political force should be formed to accomplish these tasks, and also embrace the "frustrated" or "Facebook" generation's demands for better living standards and more equitable income distribution.

Key words: Debt crisis, bank runs, euro zone, economic reforms, political reforms

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I. Introduction

The Greek economy is in a debt crisis and economic hardship summarized by (a) large internal government deficits: 10.5 % of GDP; (b) large external trade deficits: 10.6% of GDP; (c) increasing national debt: about 142.8% of GDP; and (d) negative economic growth: -4.5%; all the numbers are for the year 2010.

Debts and deficits need to be financed –there are no free lunches-, and borrowing to accommodate them has been going on for a few years now at an increasing and costly rate; e.g., the yield on 10-year government bonds was 15.37% on April 26, 2011, and 23.97% on October 14, 2011;
Blumberg: http://www.bloomberg.com/apps/quote?ticker=GGGB10YR:IND

Obviously, this situation is not viable, whether you borrow by selling costly Greek 10-year bonds, or borrow from the French, the Germans, the Chinese or the IMF. Borrowing from the IMF complicates matters because its lending policies come with specific restrictions, associated with austerity measures such as wage and pension cuts, reductions in government spending and rising taxes. The intention of these policies is to contain costs and restore the country's international competiveness, and at the same time make sure that foreign lenders get their money back.

Unable to meet its debt obligations, Greece sought financial assistance from the EU, the ECB and the IMF, which on May 10, 2010 approved a 3-year €110 billion bailout loan for the country, that was extended by another 7.5 years on March 25, 2011. The loan was accompanied with an austere stabilization program (Memorandum-1) which included wage and pension cuts, and structural and fiscal reforms intended to make the economy more efficient, and improve the public finances of the government in order to deal with the debt crisis. The structural reforms included, among others, opening up closed professions, reforming the pension funds to make them viable in the future, lengthening the retirement age for women, making the labour market more flexible and privatizing public corporations and assets. Fiscal reforms included raising taxes, cutting government spending and improving the taxation system to increase tax revenues and fight tax evasion.

The stabilization program did not emphasize political and institutional reforms, which are equally if not more important than economic and policy reforms. Political and institutional factors, due to their relative permanency through time, have intertemporal effects on the economy, and thus on the national debt, since the latter by definition is the sum of past deficits. Indeed, the two main political parties that have governed Greece for the last 35 years have chosen a higher level of aggregate consumption than in the past, financed in part by EU subsidies, and in part by foreign borrowing. This behaviour was reinforced by the motive to stay in power longer by expanding public sector employment, offering generous wage and pension plans to public workers in cooperation with their politically powerful unions, making political favours to party faithful, and being tolerant on tax evasion and political corruption.

Presently, the current government is in a very difficult position having to manage the debt and implement the EU/ECB/IMF (or troika) austerity program. A year later into the program, problems surfaced with shortfalls in tax revenues, and delays in major reductions in government spending and privatization of public enterprises. Since the numbers did not add up, on July 21, 2011 the troika approved a second bailout loan of €109 billion and yet another more austere economic plan (Memorandum-2) in order to meet debt payments and avoid default. No doubt, this will put additional pressure on the government and test its resolve and survival.

Given this economic and political landscape, in what follows I examine eight potential scenarios or solutions to the debt crisis: (a) Greek deflation, (b) German inflation, (c) Short term borrowing, (d) Issuance of eurobonds, (e) Debt haircut, (f) Exit the euro zone (g) Debt swap, and (h) Debt rollover. In addition, I discuss six political and institutional reforms in order to achieve a single objective: "*eliminate deviations from the EU benchmark, and thus transform the country into a modern EU state*." These reforms are: (a) reform of the electoral process in order to minimize political favouritism, (b) adjustment of public sector wages and pension plans to public sector productivity, (c) elimination of political corruption by abolishing the law about ministerial responsibility, (d) fighting tax evasion by creating a credible tax system, without the provision of negotiated settlement of tax arrears, (e) getting rid of the fakelaki and rousfeti culture, and (f) creation of a credible national statistical agency.

The rest of the paper is as follows. Section II considers the eight suggested solutions to the national debt crisis. Section III discusses political and institutional reforms. Section IV offers some concluding remarks.

II. Suggested Solutions

One way to examine Greece's debt crisis and suggest some difficult solutions is to start by considering Greece's real exchange rate. Consider, for instance, the Greek real exchange rate vis-à-vis Germany:

$$\mathbf{q=eP^*/P},$$

where **e** = the nominal exchange rate **P*** = the German general price index (e.g., CPI or GDP deflator) and **P** = the Greek price index. The choice of Germany is not random, as this country is Greece's most important trading partner in the European Union. In 2009, Greece had a 4.8 billion euro trade deficit vis-à-vis Germany.

Thus defined, an increase in **q** is equivalent to real depreciation of the Greek goods and services and a decrease in **q** is equivalent to real appreciation. Over time, **q** has been falling either because **P*** is falling or **P** is increasing or both; recall that since Greece adopted the euro, **e** is irrevocably fixed at **e=1** at and cannot be changed. The fact that P* is falling and **P** is rising ultimately reflects productivity differentials (alternatively, unit labour costs differentials) between the two countries. With **q** falling, Greece has become less competitive internationally and its trade balance (net exports) relative to Germany has gone into a deficit. No wonder, we see a lot of BMWs, Mercedes and Siemens products flooding the Greek market, while at the same time Greece cannot sell even feta cheese to Germany, since they can buy it cheaper from the Bulgarians, say. Through the national income identity, it is easy to see that the trade deficit can feed into the Greek government budget deficit or vice versa. For example, if you import more than you export, you must borrow internationally to pay for your trade deficit. This international borrowing, in turn, can cause an internal government deficit, especially if a large part of the importing is done on behalf of government spending projects. The causality can of course go the other way. We have indeed a classic case of the twin deficits, external and internal, which are currently causing a great deal of concern for the Greek economy.

Against this unpleasant background what are the possible difficult solutions? Below I discuss eight long-run and short-run solutions, already discussed one way or another by economists and policy analysts.

1. Greek deflation

This long-run solution is associated with the notion of **"***internal devaluation***"** as a way of becoming competitive. With the nominal exchange rate fixed at unity, the only way for the Greek terms of trade deteriorate, (i.e., **q** increase) and thus become more competitive internationally, is to have the domestic price **P** fall. By **P** falling, through aggressive wage and income cuts, **q** will increase so as to make Greek products more competitive internationally. This is the EU/ECB/IMF-troika preferred option. This policy may improve the external deficit, but it will be painful domestically, as a lot of Greek firms will likely close down and unemployment will increase further. One can infer the human cost and social unrest in this case. The current Greek government seems to be stranded in this direction, but this policy is not without risks or costs. We already see the ongoing strikes by public sector and private sector worker unions, and there are more to come in the future. Further, in addition to rising levels of unemployment, deflation worsens the real burden of the national debt.

2. German inflation

This is another long-run solution. Let **P*** increase, by more accommodative German policies. In this case Germans will become less competitive internationally, sell less BMWs to the Greeks and other countries, and help them reduce their trade deficits relative to Germany, and thus borrow less. The gain for the Germans will be to make the future viability of the euro possible, and use it to their advantage as they have so far. Will the Germans inflate their economy to help the Greeks or support the euro indirectly? I would not bet on it. The Bundesbank has been an inflation-averse institution traditionally for good reasons. Low inflation provides a stable macroeconomic environment, keeps interest rates low and, more important, it makes Germany more competitive internationally. Being such an export oriented economy, Germany would not inflate its economy to help countries in the periphery of the euro zone and jeopardize its comparative advantage relative to the rest of the world. In fact, a major factor for the current boom of the German economy is robust exports to the emerging Asian economic giants China and India. Responding to the suggestion of inflating the German economy, Merkel recently gave the answer in no uncertain terms: "we should not be penalized for our own success."

3. Short-term borrowing

Greece and other countries with problems servicing their national debts, can borrow short-term to meet their debt payments. Indeed, in May 10, 2010 Greece borrowed €110 billion in a deal that involved the troika: EU/ECB/IMF. Initially, the loan was to be repaid in 3 years at an annual interest rate of 5.2%. In March 2011, the loan repayment period was extended by 7.5 years and the interest rate was reduced to 4.2%. In return, Greece agreed to cut wages, freeze pensions, privatize public enterprises and public property to the tune of €50 billion, and undertake structural economic and fiscal reforms, in order to achieve specific deficit and debt targets. In November 2010, Ireland was forced to accept an EU/ECB/IMF bailout in the amount of €85 billion. Recently, Portugal asked for a bailout package estimated at €80 billion. There is even talk for the need to bailout Spain as well in the future. There are three basic reasons for the bailout agreements: a) to save the euro, b) to make sure that the creditors or holders of sovereign national debts are paid back, c) to provide financial stability in the EU and allow time for the recapitalization of major European banks that have bought large amounts of sovereign debt from the countries of the European periphery that currently face debt crises. Already, all the major EU banks and pension funds that hold significant amounts of Greek bonds in their portfolios are reducing their exposure to Greek debt by substituting away from it at an increasing rate.

All the bailout agreements are administered by the European Financial Stability Facility (EFSF) which was created by the euro zone states in May 9, 2010 within the framework of the Ecofin Council. As part of an overall €750 billion rescue package, EFSF is able to issue bonds guaranteed by the euro zone countries for up to €440 billion and lend up to €250 billion to member states in difficulty, subject to conditions negotiated with the European Commission in cooperation with the ECB and IMF, and to be approved by the Eurogroup. EFSF has been assigned the best possible credit rating**: AAA** by Standard & Poor’s and Fitch Ratings, Aaa by Moody’s. In the March 24-25, 2011 European Council meetings, it was decided that by June 2013, the EFSF will be absorbed into a permanent European Stability Mechanism (ESM) with an effective real lending capacity of €500 billion. At the same meetings the *Pact for the Euro* was introduced which links a country’s wages to its international competitiveness and productivity.

4. Issuance of eurobonds

Make it more affordable for Greece to borrow without the large interest rate spreads, by having the ECB buy/sell issues of new bonds at lower rates. This seems to be a reasonable solution, until the Greek economy and other weak economies in the periphery of the euro zone stabilize. Other euro zone countries such as Spain, Ireland, Portugal or Belgium could use the same borrowing method if they needed to do so, as they may in the future. Certainly this is not a long-run solution, unless the troubled economies improve quickly over time, in terms of robust economic growth and development. There are political and economic issues associated with the issuance of Eurobonds. In the absence of an effective federal European government, who will be the issuer of these bonds? The lack of a European political union poses a serious constraint to the issuance of eurobonds**.** In a genuine political union such a political constraint does not exist. For instance, the US federal government can readily bailout a state, say Florida, when it experiences a negative economic shock. A federal fiscal transfer to Florida can alleviate the effects of the shock automatically, and the federal US government can then collect federal taxes to pay for these transfers. So the senior citizens of Florida should not be worried about getting their monthly pensions or their prescription drugs from their neighbourhood pharmacy. Uncle Sam takes care of the negative economic shock to Florida. This is not the case in the European Union, because it lacks a political federal jurisdiction. The EU is not a "transfer union" and none of the large EU countries like it to become one. For then it would mean that the more affluent EU states would subsidise the poorer EU countries of the periphery. For instance, no German political leader would agree that the German tax payers should finance the accumulated national debts of Greece, Ireland or Portugal.

Thus, the issuance of Eurobonds at this stage of European integration is politically infeasible and also socially unfair. Eurobonds may also be economically distorting since they will involve the same interest rate for all members of the euro zone regardless of their macroeconomic conditions. Yet, it is well known that interest rate differentials across countries reflect risk factors associated national debt differentials and other macroeconomic factors, such as the level of inflation, and the foreign trade balance.

5. Debt haircut

Besides the two bailout loans, Greece has accumulated about €360 billion of national debt as of the end of the second quarter of 2011. One way to alleviate the burden of this debt on the Greek economy is to haircut the debt, in the sense of paying only a fraction of the debt to domestic and foreign lenders. For example, a 10% haircut would reduce the level of the debt by €36 billion and thus provide a much needed relief to the Greek economy, given its present recessionary state; a 20% haircut would reduce it by €72 billion and so on. A debt haircut of any size is equivalent to bankruptcy, as the economy cannot pay its debts based on its own productive capacity. Two important issues are: how to implement a debt haircut and what will be the consequences of such an event on the Greek economy, the euro zone, and domestic and foreign financial institutions that hold large portions of the Greek debt. Some European politicians, for some time now, have talked about a sort of "controlled bankruptcy" implemented through the EFSF. The idea is to use EFSF resources to either buy the country's debt at reduced prices in the secondary bonds market or to loan Greece funds to buy a portion of its debt in the same market and thus retire it. A similar idea was discussed in the March 24-25, 2011 EU meetings where it was decided that the ESM, starting in June 2013, may implement a debt haircut for a country in a debt crisis, with private investors absorbing some of the losses associated with the haircut. The country can then borrow using the primary global bonds market. Following the EU decision, Standard & Poor was quick to downgrade

Greek bonds by two categories from BB+ to BB-, taking them deeper down their junk status. Similarly, Moody's cut the country's rating by three grades to B1 from Ba1. At the same time, the magazine Economist (on March 31, 2011) was critical of the ESM clause, as well as of the EU leadership and the ECB for denying the possibility of debt restructuring within the euro zone.

An important cautionary note: Controlled bankruptcy is a new idea advanced by some EU politicians, notably German, and it is only a theoretical possibility. There is no historical record of it. Instead, the historical record is one of market-determined bankruptcies. For example, Argentina defaulted on its national debt in 2002, and repudiated about 70% of its debt. Iceland went bankrupt in 2008, when its government decided not to bail out its banking sector which had accumulated a large amount of foreign debt by investing abroad. Thus, it is not clear what politicians can do when, following the news of a debt haircut, depositors run to the bank to get their deposits and cause ''*bank runs*''. In this case, banks would simply dry up of funds and become insolvent. For 2010 alone, Greek newspapers reported a €50 billion deposits loss from the Greek banks to foreign ones or other outlets; and the deposit haemorrhage continues at every rumour or suggestion in the news media of debt restructuring or exiting the euro zone.

Even though controlled bankruptcy would have been almost certain to fail in the case of Argentina or Iceland, it may be marginally likely to succeed in the context of the euro zone. The reason is that Argentina and Iceland stood alone when their debt crises hit them, whereas Greece, Ireland and Portugal are part of a currency union of 17 countries. Argentina and Iceland had to seek external help from the IMF only, whereas the euro zone countries have a €750 billion total bailout package, through the EFSF/ESM, that has already been used in the case of Greece, Ireland and Portugal to support the euro. In addition, Greece, Ireland and Portugal have a common currency which mitigates the chance of severe bank runs through a speculative attack on the exchange rate. By contrast, in Argentina the lack of investor confidence and the accumulation of unsustainable national debts led investors to run to the bank to exchange pesos for dollars, which caused the collapse of the *currency board* arrangement which was in place for a decade up to 2002.

Clearly a Greek national bankruptcy should be avoided, otherwise the effects will be severe if not devastating. The rate of unemployment in Greece, which is currently 16.4%, will increase further, imports of basic products, such as technology, energy and pharmaceuticals will decline sharply, the country will be shut out of global financial markets, and the cost of borrowing will be high when using the same markets in the future. Further, a deep enough debt haircut, say 40% or higher, may put at risk major European and Greek banks, and Greek pension funds which hold large chunks of the Greek debt in their portfolios. The ECB holds about €47 billion and major EU banks and pension funds together hold about €43.5 billion of the Greek debt. It is estimated that the Greek banks hold about €55 billion and pension funds €15-20 billion of the Greek debt, respectively; *Isotimia*, June 12, 2011. If such institutions become insolvent due a debt haircut, the effects will be devastating for the Greek banking sector and economy.

For instance, a 40% debt haircut would reduce the Greek banks' assets by €22 billion. Given that the banks' capital base is currently about €35 billion, the haircut would reduce the banks capitalization to merely €13 billion. In effect, the debt haircut would wipe out the Greek banks. Living standards would collapse to third world levels, and it would be difficult for Greece to keep the euro as its currency. Reverting back to drachma would be the more likely outcome.

For these reasons it is counterproductive for the Greek government to announce a policy of a debt haircut. In this event, its hard-won credibility and sacrifices for implementing the structural reforms and fiscal adjustment programs would be lost and investor confidence would vanish instantly after the announcement. The credibility of the EU, ECB and IMF, which put together the bailout packages for Greece, would also suffer a serious blow. As a result, market forces would bring forward a market-determined instead of controlled bankruptcy, and the return to the drachma would be more precipitous.

6. Default and exit the euro zone

Default on the debt payments, break the constraint $e = 1$ by dropping the euro and readopt the drachma! There will be positive and negative effects associated with this option. On the positive side, abandoning the euro will result in a huge devaluation of the drachma which will improve the Greek trade balance and alleviate the need to borrow abroad large amounts of money all the time; we'll see less BMWs in the streets of Athens, more German tourists in the Greek islands and perhaps more feta cheese on the selves of German stores. Traditionally, devaluations work for the domestic economy by stimulating exports, provided the devaluing economy has a robust productive potential that can take advantage from the devaluation. In Greece, over the last 30 years, manufacturing and light industry, the most productive sectors of the economy, have declined at the expense of more services such as tourism, shipping and banking services, which have become more competitive internationally**.** With a weak productive base presently, it is doubtful if devaluations would have the desired effects and lead to export-led growth, as has been the case in Argentina.

All the negative aspects of a debt haircut, discussed above, apply with greater force in the case of exiting the euro zone. Any move or public perception to leave the euro and readopt the drachma will take time, and during the transition period there will be recurrent bank runs with a devastating impact on the Greek banks. A good indication is what happened in Argentina in 2001-2002; Maute (2006). Due to piling up unsustainable federal and state debt in the late 1990's and early 2000's, investor confidence was lost and flight of money out of the country accelerated. In 2001, people, fearing the worst, begun withdrawing large sums of money from their accounts, turning pesos into dollars, at the 1-to-1 exchange rate, and taking them out of the country, causing a run on the banks. The government reacted by enacting a set of withdrawal restrictions which in effect froze bank accounts for 12 months. This decision was followed by social unrest and political instability. In December 2001, the country defaulted on a large part of its national debt of $81 billion, and in January 2002, the Duhalde government abandoned the fixed 1-to-1 peso-dollar parity and dictated peso-fication, by which all dollar accounts in the banks would be converted into pesos at the "official" rate of 1.4 pesos per dollar. In a few months the exchange rate was floated and the peso suffered a huge depreciation which led to import-led inflation. For the rest of 2002 and 2003, many firms closed down, output growth fell dramatically and unemployment rose to 25% in 2003. The living standards of the average Argentine fell proportionately. Remarkably, the country recovered thereafter and since 2003 its annual rate of economic has been high, thanks to devaluations of the peso, increased exports and import substitution policies.

The situation in Greece will be complicated by the fact that the drachma has been abolished and will have to be reinstated. If Greece becomes insolvent in the near future and defaults on its debt payments, it will have to finance future deficits by issuing its own currency, the new drachma; Calomiris (2010). However, the mere issuance of the new money will create a run on the Greek banks, as depositors try to avoid converting euro deposits into drachmas. Similar to Argentina, at this point the Greek government will dictate drachma-fication of all deposits at some official rate; one option is the original rate that Greece entered the euro zone in January 2001: 340.750 GRD for every euro. However this is unlikely to happen given the present state of the Greek economy. A two- or even threefold increase of the original exchange rate may be more reflective of current economic conditions.

In the unlikely event that the Greek economy and banks will survive on their own the debt default and the capital flight due to bank runs, the new drachma will be devalued repeatedly leading to further banks runs, rising inflation, high interest rates and unemployment rates, and falling real incomes. It is not hard to imagine real incomes falling to €300 or less per month. Living standards would collapse, and the country will be isolated internationally for several years, if not decades. At the same time, it will have to generate enough money to pay off the remaining debts to foreign creditors. The everyday lives for most people, especially the weaker economic classes, will deteriorate sharply, as can be attested for example by the Greek bankruptcies of 1893 under H. Trikoupi and 1932 under E. Venizelos.

Greece joined the euro zone, rather prematurely, for political as well as economic reasons. The economic benefits from adopting the euro resulted from borrowing monetary credibility from countries like Germany, at the expense of giving up Greek monetary and exchange rate policies; the latter is the reason why Denmark, Sweden and the UK did not join the euro zone. While this borrowed credibility resulted in lower inflation and interest rates in the last 10 years or so, it has evaporated through irresponsible Greek fiscal policies, and an expanding public sector. The last decade was really a missed opportunity for Greece to improve its public finances, by exploiting the low interest rates and robust economic growth in order to reduce the annual deficits and the national debt. Instead, the governments used false statistics to understate deficits and debts and borrow more money to pay public sector salaries and pensions and increase consumption, at the expense of investment and future growth. Eventually the false data were reined in by international credit rating agencies, the country's credit rating would deteriorate, and global financial markets would longer lend money to Greece. The result is the current situation of high interest rates to service the ever expanding national debt, which has become unsustainable in the face of the global recession which started in 2008, low economic growth, corruption, tax evasion and a weak and regressive taxation system.

Even though the option of dropping the euro sounds extreme, it may be a credible threat for the strong euro zone partners, in order to cooperate in solving Greece's and the other euro zone countries' such as Ireland's and Portugal's debt crises. If these countries exit the euro zone, they may threaten the very existence of euro itself! The project for European integration that has been going on for the last 50 years or so would also be in jeopardy. Over time though, this threat becomes less credible, because, as noted earlier, major EU financial institutions that hold Greek debt are substituting away from it in order to reduce the negative impact of a likely debt default on their balance sheets, and also to avoid contagion to the rest of the euro zone.

However, there is a more fundamental weakness of the euro as a form of *legal tender* which arises from the lack of a political union within the euro zone. The very nature and definition of money should make this very clear. Money can be anything that satisfies the functions of: (a) medium of exchange (b) store of value (c) unit of account and (d) means of deferred payments. In the absence of a monetary regime in which money is backed by a precious metal, such as gold or silver, money is worthless pieces of paper, or *fiat money*, which acquires value only because of government regulation or law, which makes it legal tender**:** *a legally valid medium of payment for settling private and public and debts*. The euro is a special case of a legal tender: the euro banknotes are worth their stated values because of the credibility of the signature of the president of the ECB on them, and the collective trust in the euro zone countries` parliaments. However, unlike other currencies such as the US dollar, the euro is not legal tender from the point of view of the euro zone as a whole. The main reason for this is the fact that the euro zone is not a political union yet, and the European parliament does not have the legal authority to declare the euro coins and banknotes legal tender. Instead, national laws specify that the euro is a member country`s legal tender. Given this important detail, if Greece or any other of the 17 countries defaults on its national debt and exits the euro zone, the euro will no longer be a legal tender and such a country will not be legally obliged to settle its debts in euro. The signature of the ECB president will also be worthless, including all the useful functions of euro as money.[1] The current turmoil generated by some euro zone countries' debt problems may thus reflect the financial markets' perceived uncertainty about the long term viability of the euro as a common currency for a group of countries without a federal political union.

[1] Unless the country becomes a pariah state, it will have to pay its remaining debts in the new currency it creates, presumably the old national currency with doubtful international value. No one would be happy about such a development.

7. Debt swap

German Finance Minister Wolfgang Schäuble wrote a letter on June 6, 2011 supporting a voluntary rescheduling of Greek debt through a bond swap, which would result in investors getting new debt that's paid back later than the old debt. The new debt will have an extended maturity of seven additional years and presumably a reduced yield compared to the old debt which trades at high yields in the secondary market. This option, if implemented, will reduce the burden of the debt in the short run and at the same time it will buy valuable time for Greece to work through its €360 billion debt pile, as the economy recovers over time and the structural economic and policy reforms have delivered the desired outcomes. This option may have no direct impact on the profits or losses of holders of Greek debt, but it would impact on their liquidity because they would get their money later than otherwise. This may be costly for some institutions that depend on such liquidity for their daily operations. Such institutions may be in financial distress if the maturity period of the Greek debt is extended. More important, the lengthening of the maturity of the Greek debt would have repercussions on the maturity structure of the credit default swaps (CDS) associated with the debt. CDS are instruments that provide investors with insurance against default. Normally, changing the maturity structure of an underlying debt instrument should trigger a *credit event*; that is paying out of CDS. It is not clear how the Schäuble proposal can be implemented without unsettling the financial derivatives market and investor confidence. The ECB has warned that it would not accept re-profiled Greek bonds as collateral for Greek banks' borrowing for their liquidity needs.

These points should make it clear that there are no easy solutions to the Greek debt crisis. Nonetheless, given the fact that the consequences of debt haircut or defaulting and exiting the euro zone will be devastating for the Greek economy and potentially other euro zone countries, this solution may be a pragmatic option in the future despite its shortcomings.

8. Debt rollover

This option is inspired by the so called *Vienna initiative* which involves creditors voluntarily rolling over expiring debt with new debt. The Vienna initiative was sponsored by the IMF and was applied successfully to rescue Hungary, Romania, Latvia and Serbia in 2009 and avoid contagion in Eastern Europe in the wake of the US financial crisis and the collapse of Lehman Brothers. The important feature of this solution is that lenders maintain their debt exposure on a voluntary basis.

In the case of Greece this initiative would be accompanied with bold deficits cuts reminiscent of the Belgian experience in the1990s. A voluntary agreement with investors would be part of a new program of Greek reforms and austerity (Memorandum 2) and more EU/ECB/IMF funding for the period 2012 to 2014. Such a deal would include not only not selling down investors' positions held in Greek debt, but also actually buying new Greek bonds with a maturity of seven years or more to replace those that matured over the length of the program.

Debt rollover is not without its critics. Even though debt rollover may not lead to a credit event as the new bonds have no existing CDS written on them, it may lead to a *rating event* whereby credit rating agencies can downgrade the new bonds as inferior to the old ones in terms of longer maturity and lower yields. Already Standard and Poor's downgraded Greek bonds to the lowest credit rating CCC on June 13, 2011, one grade before the rating D, which is reserved for a debt default.

Resolving the Greek debt crisis will be a difficult task given its complexity and serious implications within the euro zone, and any proposed solution will only be a short run or at best a medium run solution. Of the solutions discussed above, Greek deflation should occur over time when the economic and policy reforms are fully implemented. German inflation is unlikely to occur given Germany's inflation aversion, and the issuance of Eurobonds is politically infeasible within the euro zone, at the present stage of its political integration. Default and exit of the euro zone is also highly unlikely, given its consequences on the future viability and survival of the euro. Thus, any proposed solution would necessarily involve one or a combination of the remaining four solutions. Indeed, on July 21, 2011, under the leadership of Germany and France, the troika officials and private investors agreed on a proposal that contains elements of these four solutions. The voluntary private sector participation deal involved a combination of four instruments:

a) A par bond swap into a 30 year instrument
b) A par bond rollover of maturing Greek bonds into a 30 year instrument
c) A discount bond swap into a 30 year instrument
d) A discount bond swap into a 15 year instrument

For instruments, 1, 2 and 3 the principal is fully collateralized by 30 year zero coupon AAA Bonds. For instrument 4, the principal is partially collateralized through funds held in an escrow account. Assuming a 90% investor participation rate, a 9% discount factor and investor selection of equal proportions of 25% among the four instruments, all the new instruments are priced to produce a 21% haircut to the Greek debt; Institute of International Finance (2011), http//www.iif.com/press/press+198.php

The private sector involvement was complemented with a €20 billion Greek debt payback scheme which can be used by Greece to retire part of its debt through the secondary bonds market. The funds for this payback will be guaranteed by the euro zone countries and will be administered by the EFSF, the role of which is extended further to provide funding for financial institutions in need of recapitalization. These steps would free up resources for the second private sector €109 billion bailout loan to Greece, at the reduced interest rate of 3.5% per annum and a 15 year maturity. These terms would also apply to the first bailout loan of €110 billion which carried a higher interest rate and a 7.5 year maturity. All these measures are intended to meet the country's funding needs until the year 2020 and improve its debt sustainability, until confidence in the Greek economy is restored.

The announcement of these measures on July 21, 2011 pleased financial markets because it suggested that for the first time the euro zone was taking a comprehensive, long-term approach to the debt crisis, rather than simply lending Greece more money to avoid disaster in the near term. However, there were a lot of loose ends to this deal relating to the lack of details about the payback facility, the enhanced role of the EFSF that required approval by the parliaments of the euro zone countries and conditionality on the success of the structural and fiscal reform measures undertaken by the Greek government. Resolutions of some of these issues were postponed until later in the fall of 2011.

Currently, doubts have been articulated among euro zone officials about the adequacy of the July 21 accord, and the German Finance Minister Wolfgang Schäuble has expressed explicitly the need for a deeper haircut of the Greek debt, reportedly in the order of 50%, in order to make it sustainable. German and French officials are meeting again in emergency talks as we speak to work out a new deal. It remains to be seen what will be the contents of the new proposal, and what will be the markets' reaction to it.

Down the road, besides debt restructuring, a combination of the long run solutions may be necessary to deal with the debt crisis in Greece and the other euro zone countries including internal devaluation which will occur endogenously over time or even some mild German and euro zone inflation by more accommodative ECB policy. Some policy analysts have blamed that tight monetary policy of the ECB as a contributing factor to the present debt crisis in the euro zone. While it is true that the most important responsibility and founding principle of the ECB is *price stability*, the strict anti-inflationary policy of the ECB seems to work fine under normal economic conditions, but not under conditions of financial distress and recession. In the latter case, a more accommodative policy would make more sense, even more so in a monetary union where member countries have given up their own monetary and exchange rate policies. Clearly, in retrospect, a policy of "quantitative easing" as was implemented by the US Fed in the aftermath of the US financial crisis would have been a more appropriate response in Europe as well. However, the US suggestion for quantitative easing in the euro zone was quickly rejected by the ECB a couple years ago. Yet, if it was adopted by the ECB, much needed liquidity would have been injected into the euro zone economies, without at the same time, compromising price stability, as currently the real threat is global deflation and not inflation. Further, in the name of price stability, the ECB turned a blind eye on the member countries' fiscal deficits and debts which were known for several years to exceed the targets of 3% and 60% of GDP, respectively, set by the Maastricht Treaty. Had reds flags been raised by the ECB four or five years ago, the situation would have been much different now in the euro zone.

Ultimately the issuance of Eurobonds would have been a sound solution but as discussed above this is not feasible until a European political federation has been created, and which will be viable only if political and institutional reforms are also undertaken at the national euro zone level. Below, I discuss some political and institutional reforms pertaining to Greece.

III. Political and institutional reforms

In the modern theory of dynamic international macroeconomics, (e.g, Obstfeld M. and K. Rogoff (1996)), economic agents, including governments, maximize their welfare by making their consumption/saving decisions subject to their budget constraints and then determine how much to import and export, or the balance of trade. In this context, the causality between internal and external deficits goes from the former to the latter: governments maximize society's consumption by shifting their budget constraints through borrowing, thus creating an internal budget deficit, and some of the additional consumption comes from increased imports from abroad, thus causing a trade deficit. Borrowing in itself is not a bad thing to the extent that the country can generate enough resources to pay for the principal and interest over time. This way, the society consumes more and everybody is better off than without borrowing. However, problems arise when borrowing becomes unsustainable: that is when an individual borrows to keep a high level of consumption without generating any real wealth to pay for it at the end his life, or when governments lose elections and leave behind a negative level of wealth or equivalently a large debt for future generations to pay off. Charles Ponzi (1882-1949), an Italian immigrant to the US in the early 1920's, borrowed money to buy international reply coupons (IRCs) from Italy for the purpose of redeeming them for higher valued US stamps, thus promising investors high rates of return. In practice, the overhead on buying and selling large amounts of IRCs precludes profitability, and the scheme eventually collapsed with a lot of investors losing their money, Zuckoff (2005). Ponzi himself was tried and convicted several times for fraudulent investments. He died in Brazil penniless, leaving behind a large unpaid debt, at the expense of naive investors.

To eliminate Ponzi games, economists impose another condition in their optimising models: the *no Ponzi condition*, which precludes the possibility that one can go on consuming or investing by continuous borrowing and leaving behind debts. Alternatively, the present value of one's debts at the end of his life should be zero. Have successive Greek governments violated the no Ponzi condition by accumulating a debt to GDP ratio in the order of 142 %? At first glance, the answer is ambiguous. Some people would argue that the global recession that started in 2008, combined with low economic growth (1%, -2.25 and -4.6 in 08, 09 and 10, respectively) and high interest rates to service the debt (about 8%) contributed to the violation of the no Ponzi condition. However, the no Ponzi condition applies over long time horizons, not just the last three years. What is true is that the Greek national debt has been rising steadily over the last 30 years, even during periods of higher economic growth than the EU average, as was the case in most of the 1990s and early 2000s. Both the two main political parties, PASOK and ND that have governed the country over this period have increased the national debt. The political and institutional factors that contributed to this increase include:

1. The large expansion of the public sector by each of the two governing parties with main motive to "buy" votes and get re-elected. There is a lack of meritocracy in hiring public employees, which is often based on political connections, nepotism and favouritism. This behaviour is certainly encouraged by the "*vote of preference*" feature of the electoral process. It is not uncommon individuals who worked in the political campaigns of politicians, after every election, get jobs in different ministries or in local governments basically without any skills for the tasks they are assigned to perform. This practice, besides creating economic inefficiencies and a huge bureaucracy, has contributed to a ballooning of the government deficits and the national debt.

2. The generous salaries, pensions and retirement packages of public employees, especially the directors and managers of public corporations or DEKOs, among others, in the telecommunications, transportation, public utilities and health sectors. Mismanagement of the DECOs has resulted in large amounts of accumulated debts in most of them. There has been a real pillage of public funds by senior managers of some of these entities. For example, the Hellenic Railways Organization or OSE has nearly a €10 billion debt and the public hospitals have over a €5 billion debt.

3. Corrupt civil servants and elected ministers who pocket large sums of money in the form of bribes through the awarding of governments contracts to domestic and foreign firms. Scandals involving minsters who were bribed by certain multinational companies to win government contracts for the military and telecommunications industry have been surfaced recently, causing the public outrage and diminished credibility for the whole political system in Greece. The funds of these illegal activities have been channelled into foreign bank accounts and offshore company accounts. What has outraged the public the most is the lack of punishment of the offending ministers because they are protected by a law about **"***ministerial responsibility***"** which takes such cases away from the judicial system and into the hands of parliamentary committees, which decide on a preliminary investigation of corruption cases upon a petition signed by a minimum of 30 members of parliament. This procedure leads to the politicisation of issues of corruption, and as a result no minister or public official has been punished so far. What is more outrageous, if the felonies or misdemeanors have been committed five years or more in the past, they are automatically barred and are not considered even by parliamentary committees, let alone the public courts.

4. Tax evasion is rampant in Greece, which costs the country an estimated €15 billion per year. There are several reasons for this. First, there are frequent changes in the tax code which translate into an inherent weakness in the check-and-balance procedures and tax collection of the Greek taxation system. Often tax evasion cases are litigated in courts under different tax regulations and loopholes, which lead to waste of resources, reduced taxes and delays in tax collection. Second, about one-third of the labour force consists of self-employed individuals with small businesses, which operate on a cash basis that is almost impossible to monitor and collect taxes from. More generally, the Greek shadow economy is about 25% of GDP, the highest among the euro zone countries. Third, there is a general mistrust for elected government officials by the public, who feel that the government does not represent their interests, and thus have less of a sense of duty for the state. As a result, tax evasion is a common phenomenon in many professions. In a well publicised government survey last year, 150 rich doctors from the upscale district of Kolonaki in Athens reported that the made less than €30,000 per year, and 30 of them reported income of less than €10,000 per year. Fourth, there is rampant corruption by tax officials. Media reports are rife with stories of corruption of tax officials accepting bribes to reduce tax penalties. Recently, 14 high ranking tax inspectors were charged for reducing or eliminating tax obligations by several private firms. Fifth, more important, there is a *fundamental flaw* in the tax system called “diakanonismos” which allows for a negotiated settlement of tax arrears between the tax payers and the tax auditors. This flaw creates an incentive for firms to accumulate large sums of unpaid taxes over several years and then enter into negotiations with the tax authorities to pay only a small fraction of them. This flaw has been a constant feature of all tax reforms and thus makes the whole tax system less credible and more prone to abuse.

5. The fakelaki and rousfeti culture. There is a long tradition in Greek society that often you have to pay your way to get something done, or you have to get to know politicians to get political favours. The fakelaki involves bribes of cash in little envelopes that affect everyone from hospital patients to contractors bidding for public projects. The fakelaki is closely connected to the word “rousfeti” which means expensive political favours, which include everything from hiring teachers to property deals with monks. Fakelaki and rousfeti are two sides of the same coin: the former is a social practice and the latter a political one. According to the corruption-watchdog group Transparency International, 13.5% of Greek households in 2009 paid €1,355 on average in bribes for public services such as to obtain driver’s licences, swift hospital admission, building permits, or to reduce their tax bills. Bribes for private sector services such as doctors, lawyers, or banks were even higher, €1,671 on average; Spiegelonline (2010). In the past a few years alone, senior politicians have resigned or been investigated for taking bribes in awarding contracts, employing illegal workers and selling overpriced bonds to public pension funds. The Vatopedi monastery scandal is a recent example of a rousfeti: in 2008 senior government ministers were accused of helping the politically connected Vatopedi monks claim ownership of a lake, and then swap it for a portfolio of prime public lands at bargain prices. According to investigators, the whole deal cost taxpayers over €100 million.

All these fakelaki and rousfeti transactions are part of the shadow economy which is not subject to taxation. Besides contributing to tax evasion, the fakelaki and rousfeti transactions are also important factors in the unequal distribution of income in the Greek economy: the fakelaki and rousfeti receivers end up with higher after tax incomes and the fakelaki and rousfeti (i.e., the state) givers with less.

The above discussion shows that the political system in Greece and its institutions are incapable, to a large extend, to deal with the present debt crisis and in many ways are responsible for it. Hence, there is an urgent need for political and institutional reforms. The particular form that these reforms can take will depend on the objectives that one wishes to achieve, and the direction that one wishes the country to take. Since 1974, important steps have been taken to tilt the country in the EU direction: Greece became a member of the European Community in 1981 and of the euro zone in 2001. Yet, despite these important successes, the factors 1 to 5 above make it clear that there have been significant deviations from the EU direction. Suppose then the new objective is:

“Eliminate deviations from the EU benchmark and thus transform the country into a modern EU state.”

Towards achieving this objective I suggest the following reforms:

1. Abolish the current electoral system “*vote of preference*” (stauro protimisis) which breeds political favouritism or rousfeti in the political system under the logic of “do me the favour and I will vote for you.” There should be only one candidate from each political party for each parliament seat. This can be achieved by changing the electoral process so that the election candidates for each political party are chosen through a competitive process at the local electoral districts, instead of being picked by the party leadership. This is already done in choosing the party leaders of the two major political parties, and hence the costs of applying the same procedures at the local level should be small and the benefits enormous. This reform if implemented will break the chain of connections among party leaders, candidates and the electorate and reduce their implicit relationships that lead to obligations for each winning party to hire its own foot soldiers to central and local government positions and other public organizations without proper skills and qualifications. The hiring in the public sector should be done through a competitive process that assigns jobs in the public sector based on proper qualifications, education, skills and experience as stated in the submitted curriculum vitas of the job applicants.

2. It is well known that average salaries and pensions are higher in the public sector than in the private sector. Job security is also guaranteed in the public sector but non-existent in the private sector. This situation makes public jobs more attractive than private sector jobs and creates a fundamental unfairness in the Greek labour market. In order to make the labour market more fair and balanced, the salaries, pensions and retirement packages of public employees should be adjusted to levels consistent with their productivity. Since there is no reason to believe that public employees are more productive than private sector employees, a good metric of adjustment are the wages, pensions and retirement packages offered by the private sector. This is especially necessary for overpaid civil servants and the directors and managers of public corporations with doubtful contribution of value added to their activities. A quick and effective way to achieve similarity of compensation between public and private sector is to reduce public ownership of debt-ridden or government-subsidized DEKOs by selling off a fraction of government ownership to the private sector in competitive market auctions. DEKOs in the transportation (e.g., OSE), telecommunications ((e.g., OTE) and public electricity ((e.g., DEH) sectors are examples of companies that could be auctioned off.

Regarding job security in the public sector, it should not be automatic. Instead it should be based on a tenure system, which involves periodic evaluation of public servants based on performance criteria. Initially, civil servants should be hired on a probationary basis, and should submit annual reports of their activities and evaluated by independent peer review committees every 3 years for their first 9 years of their employment. The peer review committees should submit their interim evaluation reports and if the performance criteria are met employment tenure should be granted to probationary civil servants in the

10th year of their employment. Otherwise they should be fired and a job search should start for new employees. This approach if implemented will also make labour relations within the public sector more fair by eliminating the “free rider” problem: as it is now there is a fraction of qualified and productive civil servants who do most of the work and the rest of them free ride on these conscientious workers.

3. Fight corruption to its core by imposing stiff penalties to public officials involved in corruption cases. The penalties could range from high monetary fines to appropriate prison terms determined by the penal code of public courts. More important, eliminate the incentive for institutionalized corruption by eliminating the controversial law about ministerial responsibility from the country’s constitution. After all, this law may be unconstitutional since the initial version of the Greek constitution states that political crimes should go to public juries.

4. Eliminate tax evasion by creating a credible tax audit system of checks-and-balances that identifies tax evaders and tax arrears using automated computerised methods. Such methods need not be new. They can be borrowed and learned from other EU or North American countries such as Canada and the US. The Internal Revenue Service (IRS) of the US or Revenue Canada (RC) have developed first class methods of tax audits that are very effective in identifying and fighting tax evasion. These methods should be adjusted to account for the specific features of the Greek economy such as the fact that about 1/3 of the total economic activity is undertaken by self employed individuals who operate on a cash basis, and thus can easily underreport their true incomes. Equally important, the fundamental flaw of the tax system, which allows for the negotiated settlement of tax arrears between the tax payers and the tax auditors, should be dropped, thus eliminating both one of the main incentives for tax evasion by tax papers and accepting bribes by tax auditors. Further, the tax auditors should be obliged to take a course on ethics in public administration, so that they have in mind an ethical standard when they conduct their audits. At the same time, the government should improve the quality of government services to the public so that citizens feel that the taxes they pay are worth their sacrifice.

5. The fakelaki and rousfeti culture is a residual from the past which has survived through time. Both fakelaki and rousfeti are non-marketed activities which are part of the shadow economy and are thus important devices of tax evasion. Even though it will be difficult to eradicate the fakelaki and rousfeti culture over night, serious steps should be taken to reduce its practice in Greek society and eventually eliminate it. One obvious step is to make laws which assign high penalties to fakelaki and rousfeti activities. Another step would be to create a social stigma for fakelaki receivers and rousfeti receivers/givers by publishing their names on a government website for everyone to see. A third, and not less important, consideration is the *endogeneity* of the fakelaki and rousfeti culture: once the reforms 1 to 4 noted above have been put into effect, the fakelaki and rousfeti activities should also decline over time.

6. Create a credible national statistical agency which would be completely independent of political influence and would compile valid and reliable data for the country’s economy. The correct measurement of important economic variables, such as GDP, employment, deficits, debts and so on, are fundamental for sound decision making by governments, policy makers and all kinds of market participants. In the past, the Greek Statistical Service under the influence of politicians produced unreliable data on government deficits and debts, they were recently caught and completely discredited, and the country was shut out of global financial markets. Further, not only are some data unreliable, they are also incomplete. For instance, Greece has one of the most incomplete time series data on major macroeconomic variables in reputable and well known international data bases such as the International Financial Statistics of the IMF. This is an important issue because it prevents research on important economic topics regarding the Greek economy. A serious effort should be made by the new statistical agency to complete and supply updated data to such international statistical agencies, so that they are readily available for all uses, including research.

The current Greek government is in a very tight spot having to pay for the bailout loans (€110 billion and €109 billion) and the national debt (€350 billion), implement the troika sponsored stabilization programs and fight a deep and long recession. These are very difficult and onerous tasks to achieve simultaneously in a short time span. The hope is to buy time until the stabilization program works, the economic and political reforms have been completed, and the economy recovers to positive economic growth. Unfortunately, there are no quick ways to fix the excesses and abuses of the last 35 years. In parliamentary democracies like Greece, procedural bureaucracy makes it difficult to reduce the size and waste of the public sector quickly, or to strike down laws, such as the law about ministerial responsibility, which have lead to institutionalised corruption and the pillage of public funds. It will be equally difficult to reform the tax system and eliminate negotiated settlement of tax arrears that contribute to tax evasion. Still worse, it will be very slow to change the fakelaki and rousfeti culture which leads to corruption, tax evasion and unequal distribution of income. These difficulties together with potential policy mistakes by the government make the prospect of a quick and viable recovery rather unlikely. What is really missing in political discussions is a credible economic plan for growth and development that could be implemented quickly and effectively. Despite the efforts of the two main political parties to produce their own policy blue prints for growth, it has proven difficult to articulate a clear and convincing alternative. The main reason for this is the incomplete state of our knowledge regarding what factors take an economy into a liquidity crisis and what policy mix can take it out of it. A good example of this is Japan which has been in a liquidity trap since the early 1990's and is still hovering around it, despite expansionary government policies which have taken its debt to GDP ratio over the 200 % mark! Obviously, this is an important topic for future research.

Yet the situation is not hopeless. First**,** Greece is not alone in this. It is a member of the EU for the last 30 and the euro zone the last 10 years. At the Greek request, the EU came to rescue with the bailout loans which have saved the country from bankruptcy.

Second the stabilization programs, austere and unpopular as they may be, come with provisions for economic and policy reforms that will help the country over time to modernise and become a state with a smaller, more efficient and fiscally responsible public sector, a credible tax system, more meritorious and competitive labour markets and a more competitive economy internationally.

Third, there is realization on the part of the public that a *new political order* is necessary in order to move the country forward. The existing political establishment is viewed inadequate and responsible in many ways for the present state of the Greek economy. In recent opinion polls, the two main political parties that have governed the country for the last 35 years get together about 40% of the popular vote, and 37% of voters are undecided and disappointed with the two main political parties. Currently, there are calls from EU officials and some Greek politicians, including the prime minister, George Papandreou, for a national consensus among the main political parties of the country to implement the main provisions of a second stabilization program. It remains to be seen what issues they may agree on, if at all.

The "*Polytechneio generation*," which brought down the dictatorship in 1973, took over the ship of the Greek state with great expectations and promises for establishing a true democracy and a just society. Unfortunately these goals were not realized, and the historians will debate how the Polytechneio generation failed so badly in achieving these important objectives. Yet, the same generation in cooperation with the present one should now create a new political force of progressive EU-minded individuals to achieve these objectives by way of eliminating deviations from Greece's EU direction, noted earlier. One thing is certain: the youth of Greece are part of the millions of "frustrated" citizens in North Africa, the Middle East and Europe who organize through modern social media and demand a new way of living, a better distribution of income and implicitly a new political order. The latest large peaceful protests organized by the youth in Athens and other cities in Greece show that the "*Facebook generation*" is a social force to be reckoned with. They feel the heavy burden of the debt they will be called upon to pay for in the future and they are concerned about their employment prospects and living standards. They are frustrated with the weaknesses and unfairness of the existing political system which brought the country to the present dismal economic state and excessive indebtedness, even though they had no part of it. At the same time, those responsible for the debt are not paying for it, and corrupt politicians involved in scandals are not being punished. If anything the main message of the "facebook" protests is a loud demand for *social justice*.[2]

The new political force, which conceivably could be a radically reformed existing political party, should embrace the hopes and aspirations of the Facebook generation and articulate policies to accommodate their demands. Hopefully, this force will be created sooner rather than later, since the stakes are really very high. If a national consensus is not found to tackle the country's economic, political and institutional weaknesses, a

[2] It is remarkable that the new social media such as the Facebook has made the demand for social justice explicit. This fact speaks volumes about the inability of the traditional print and electronic mass media outlets and the irrelevancy of existing political parties, from left to right, to comprehend the message of the Facebook generation. In fact, while millions of ordinary Greek citizens have realized that changes in the existing political and even personal attitudes are necessary, and are willing to pay their fair share, media analysts, journalists and household name politicians are still scratching their heads to figure out the message of the latest protests.

likely implosion of the main political establishment in future elections will take the country either into a state of anarchy or a reactionary government with all the social unrest and political instability that this may entail. In the past, such instability brought dictatorships to power and closure of the Greek parliament. Thanks to Greece's EU membership, the emergence of a new dictatorship in the future is a low probability event; it is not however a zero probability event, if the country ceases to be an EU member.

IV. Conclusion

In summary, it is difficult to imagine Greece either outside the euro zone or the EU. As was made clear in the above discussion, the best choice for Greece is to stay in the EU and the euro zone by satisfying its debt obligations; all the other alternatives are really inferior and dangerous, not only for Greece but for the EU itself.

The Greek debt crisis is the result not only of economic deficits but also of political and institutional deficits, which have been developing over the last 35 years. The tight monetary policy of the ECB may have also been a contributing factor. Now it is the time of reckoning, where ordinary Greek citizens are called upon to pay for these deficits. This is unfair since not all of them participated in the excesses and abuses of the past. It is even worse for the present young and future generations of Greek citizens who will continue to pay off the national debt they will inherit without having contributed to its creation. Already the "frustrated" or Facebook generation of young Greeks is making a loud demand for a more equitable income distribution and improved living standards.

In the absence of a national consensus among the existing political parties to tackle the economic, political and institutional deficits, a new political force should be formed to implement the necessary reforms in order to transform the country into a modern EU state and embrace the Facebook generation's demand for social change. In the mean time, the current crisis should be used as an opportunity and a beginning to create a better economy, a more just society and an improved national accounting system.

References

Calomiris C. W. (2010), “The Painful Arithmetic of Greek Debt Default,” *e21 - An Initiative for 21st Economic Policies*, www.economics21.org, In Depth Research, March 18, 2010, pp.1-9

Institute of International Finance (2011), “The July 21, 2011 Support Package for Greece: Key Elements, Likely Impact and Benefits for Debt Sustainability,” Key Issues, Sept, 22, 2011; http//www.iif.com

Maute J. (2006), “*Hyperinflation, Currency Board, and Bust: The Case of Argentina*,” (Hohenheimer Volkswirtschaftliche Schriften), Peter Lang Publishing; 1st edition

Obstfeld, M. and K. Rogoff (1996), “*Foundations of International Macroeconomics*,” MIT Press

Spigelonline (2010), “*Greek Corruption Booming, Says Transparency International*,” http://www.spiegel.de/international/europe/0,1518,681184,00.html

Zuckoff, M. (2005), “*Ponzi's Scheme: The True Story of a Financial Legend*,” New York: Random House