Implications of a Disorderly Greek Default and Euro Exit

Summary

There are some very important and damaging ramifications that would result from a disorderly default on Greek government debt. Most directly, it would impose significant further damage on an already beleaguered Greek economy, raising serious social costs.

The most obvious immediate spillover it that it would put a major question mark against the quality of a sizeable amount of Greek private sector liabilities.

For the official sector in the rest of the Euro Area, however, the contingent liabilities that could result would seem to be:

- Direct losses on Greek debt holdings (€73 billion) that would probably result from a generalized default on Greek debt (owed to both private and public sector creditors);
- Sizeable potential losses by the ECB: we estimate that ECB exposure to Greece (€177 billion) is over 200% of the ECB's capital base;
- The likely need to provide substantial additional support to both Portugal and Ireland (government and well as banks) to convince market participants that these countries were indeed fully insulated from Greece (possibly a combined €380 billion over a 5 year horizon);
- The likely need to provide substantial support to Spain and Italy to stem contagion there (possibly another €350 billion of combined support from the EFSF/ESM and IMF);
- The ECB would be directly damaged by a Greek default, but would come under pressure to significantly expand its SMP (currently €219 billion) to support sovereign debt markets;
- There would be sizeable bank recapitalization costs, which could easily be €160 billion. Private investors would be very leery to provide additional equity, thus leaving governments with the choice of either funding the equity themselves, or seeing banks achieve improved ratios through even sharper deleveraging;
- There would be lost tax revenues from weaker Euro Area growth and higher interest payments from higher debt levels implied in providing additional lending;
- There would be lower tax revenues resulting from lower global growth. The global growth implications of a disorderly default are, ex ante, hard to quantify. Lehman Brothers was far smaller than Greece and its demise was supposedly well anticipated. It is very hard to be confident about how producers and consumers in the Euro Area and beyond will respond when such an extreme event as a disorderly sovereign default occurs.

It is difficult to add all these contingent liabilities up with any degree of precision, although it is hard to see how they would not exceed €1 trillion.

There is a more profound issue, however. The increased involvement of the ECB in supporting the Euro Area financial system has been such that a disorderly Greek default would lead to significant losses and strains on the ECB itself. When combined with the strong likelihood that a disorderly Greek default would lead to the hurried exit of Greece from the Euro Area, this financial shock to the ECB could raise significant stability issues about the monetary union.

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1. A Disorderly Greek Default

This note does not address the circumstances triggering a disorderly default by Greece on its public debt obligations, but rather the consequences of such a development, especially for creditors outside of Greece. It also does not address the social and human cost of a disorderly default on the Greek population, which would be sizeable and come against a backdrop of four years of pain and adjustment. While these costs are not quantified here, they could be among the most meaningful that result from a disorderly default.

A disorderly default will begin with the failure of the Greek authorities, the Troika and Greece's private sector creditors to agree on a package of measures that would permit the disbursement of new official funds, and the debt exchange of existing private sector claims on Greece for new debt at a deep discount. It would most likely have the following characteristics:

- The impact effect would be that Greece would default (not honor interest payment and principal repayment obligations within the due deadlines) on its public debt by the time of the next redemption payment for Greek Government Bonds (March 20). This default would not be limited only to claims by the private creditors, but would probably apply also to all outstanding claims by the official sector (including the IMF). General government debt at end-2011 amounted to €368 billion, of which some €73 billion were due to Euro Area countries and the IMF.

- This default would trigger a wave of further financial dislocations. It would most likely cause a collapse in the Greek banking system, and put at jeopardy:

  - €91 billion (as at end-2011) owed by Greek banks to foreign lenders and depositors (€28 billion of which are owed to Euro Area lenders, the bulk of which are banks);

  - €247 billion owed by Greek companies and households to Greek banks, 15 percent of which are already nonperforming. (Relative to GDP, this amounts to 115 percent). The balance sheet impact of a redenomination of claims (in the event that Greece leaves the Euro) would lead to a wave of

bankruptcies among financial institutions and households, thus exacerbating the recession.

- It would cause significant financial stress in the Greek non-financial corporate sector and put much of the €21 billion owed by resident Greek corporations to foreign lenders at risk.

- Perhaps most significantly, a disorderly default by Greece would have substantial consequences for the ECB, which has an exposure to Greece possibly amounting to €177 billion comprising:

  - €43 billion of holdings of Greek government bonds under the SMP;

  - €110 billion of collateral in the form of GGBs and other eligible securities (mainly in the form of Greek government guaranteed bank bonds) provided by Greek banks under the ECB's refinancing facility;

  - A potential €24 billion of ELA loans to Greek banks that would presumably be drawn down fully in a period of severe stress.

Given these financial traumas, it is difficult to conceive that Greece can remain a functioning member of the Euro Area in the event of a disorderly default. The Greek authorities would have little option but to regain monetary policy independence by exiting from the Euro Area and introducing a new national currency.

The practical difficulties, costs (both for the government and the private businesses in terms of switching to a new payments system) and implications of such a rushed decision would be substantial. Practical difficulties in day-to-day transactions would be serious as there would be no easy way to separate the Euro notes circulating in Greece from those circulating in other Euro Area countries, with a potential for further capital flight. There would also be major difficulties/challenges in sorting out the appropriate re-denomination and valuation of existing financial assets and liabilities in current private and public sector balance sheets, in different jurisdictions.

In the circumstances, the Greek authorities would be forced to resort to borrowing from the Bank of Greece to cover budget spending, recapitalize the Greek commercial banks (which would be de facto nationalized) and put in place minimum facilities for the provision of credit to the private sector. The risk of embarking on a vicious circle of inflation and devaluation would be significant. Draconian capital controls would almost certainly be re-introduced.

The issue of whether Greece can remain in the European Union after defaulting and leaving the Euro Area is not clear-cut. The likely imposition of capital controls and possible inability to honor other EU laws and directives would raise important questions. The Lisbon Treaty, in force since 2009, introduced an EU exit clause, but does not

provide for an exit from the Euro Area. The European Commission has confirmed that there was no provision under EU treaties to exit the Euro without also leaving the EU. In any event, leaving the EA/EU would mean negotiating Treaty changes—essentially negotiating Greece's disengagement from a vast web of privileges and obligations with all other Treaty members who will have to agree with the changes. This will be a lengthy and messy process, during which financial markets will be driven by panic capital flights spreading contagion to the rest of Europe and the global economy.

2. Contagion to Other Periphery Countries

Investors experiencing a traumatic loss in value on their Greek holdings are far more likely to be conservative in their assessment about whether such this might occur in the case of other countries.

Problems in Greece spread to Ireland and Portugal in 2010-11, leading the European authorities to assemble large programs to take all three countries out of the market through 2012. The obvious focus will be on whether a second round of contagion might spread.[1]

One issue that should be emphasized is that in the circumstances of a disorderly default, the problem of contagion results not so much from the breakdown in trust that creditors have about debtors, *so much as the breakdown in trust that creditors have about each other*. Greece has delivered on many fronts, but has failed on others; other peripheral countries started with fewer problems and have delivered more on a broader array of fronts, including those of key structural adjustments. These efforts are liable to overwhelmed, however, in an environment where investors become once more focused not so much *on* the return on their investment, as the return *of* their investment.

Despite bold efforts by the government, contagion would likely be most acute in the case of Portugal, which lost financial market access in early 2011, is already rated well below investment grade by the major agencies, and whose debt currently trades at distressed yield levels. It might then quickly spread to Ireland, Italy and Spain (the latter two continue to roll over their debt in financial markets, but have seen their yields remain elevated despite some decline). Italian and Spanish banks have become far more dependent on ECB funding in recent months.

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[1] Taken together, the three Euro Area countries with EU-IMF programs have collective external obligations currently of roughly €1.4 trillion:

- EU and IMF exposures amount to about €150 billion;
- Lending by the ECB to the banks of each country, via their national central banks, amounts to about €250 billion;
- Measuring sovereign exposures at market prices, BIS data suggest that foreign banks account for perhaps €0.5 trillion in loans to the three countries;
- Nonbank private lenders, including insurance companies, corporations, direct investors and other financial institutions account for the remaining €0.5 trillion of exposure.

These contagion risks would no doubt increase sharply if Greece were forced to withdraw from the Euro Area. The very fact that such withdrawal occurred for one country would set up fears that it *could* happen for others.

In order to address these contagion worries in a credible manner, Euro Area governments will need to carry through on promises to meet the financing needs of the governments that have lost market access for a period of time that could turn out to be far longer than originally planned. Both Portugal and Ireland have shown strong political resolve and made substantial progress in implementing their adjustment programs, but are likely to suffer strong adverse effects from expectations – prompted by Greece's effective exit from the Euro Area – that they would be hard pressed to avoid severe pressures.

The adverse shock for **Portugal**, which has to implement a particularly ambitious fiscal adjustment this year against the backdrop of a much weaker growth outlook, will be particularly strong. Indeed, the recent sharp increase in government bond spreads suggests that markets are already concerned about possible fallout from Greece. A disorderly Greek default is likely to prevent Portuguese borrowers form returning to capital markets any time soon. If, by way of illustration, it is assumed that Portugal is unable to access markets through 2016, then official lenders would be required to:

- Provide €16 billion annually in financing to the government from 2013 through 2016, or €65 billion in total;
- Help assure that €77 billion of term funding is available through 2016, or about €15 billion a year from 2012 through 2016, together with the refinancing for some €86 billion in short-term credit to fulfill the obligations of Portuguese banks and corporates to foreign lenders;
- Help assure financing sufficient to manage some €330 billion in debt owed by Portuguese corporates and households to domestic banks, 7 percent of which are nonperforming, and some €220 billion owed by Portuguese banks and corporates to foreign lenders. (Relative to GDP, these exposures amount to 194 percent and 129 percent, respectively.)

Substantial additional official support could well be needed for **Ireland**, too, despite its strong implementation record and an improvement to date in market sentiment that may well have already brought the Irish sovereign close to regaining significant financial market access. A Greek default, however, would be likely to increase risk aversion anew, undercutting prospects for an early return capital markets later this year or next. A return to market access for Irish borrowers could well end up being delayed for years to come. Official lenders, then, could find themselves needing to:

- Provide €18 billion annually on average in financing to the government from 2013 through 2016, or roughly €70 billion in total, that markets may now be disinclined to provide;

- Help assure that perhaps €28 billion of term funding is available 2016, or about €7.5 billion a year, together with refinancing for most of €95 billion in short-term credit presently is available to fulfill the obligations of Irish banks (domestic and foreign-owned) tc foreign lenders;
- Help assure that perhaps €56 billion of term funding is available from 2012 through 2016, or about €11 billion a year, together with the refinancing of some €104 billion in short-term credit to fulfill the obligations of Irish corporates to foreign lenders;
- Help assure financing sufficient to manage €295 billion in debt owed by Irish corporates and households to Irish banks (domestic and foreign-owned), 11 percent of which are performing, and some €250 billion owed by Irish banks and corporates to foreign lenders. (Relative to GDP, these exposures amount to about 190 percent and 160 percent, respectively.).

Borrowing costs paid by **Spain** and Italy could be expected to increase as financial market participants begin to price in potential exits from the Euro Area, which would no longer be unthinkable following a Greek exit, and because growth outlooks for both countries clouded by the need for sizable procyclical fiscal adjustments to reassure rattled financial markets.

Were borrowing costs for both countries on new borrowing to rise by 300 basis points from the average on their outstanding debt (roughly tracking the pre-Deauville average/post-Deauville peak), then:

- **Spain** might see an increase in its annual interest payments equal to as much as 1 percent of GDP, depending on the pace of deficit reduction and the course of nominal GDP. This would equal €10 billion a year for Spain, cumulating by 2016 to €150 billion more in interest payments over 2012-2016 than had Spanish borrowing costs returned to their pre-Deauville lows. On average over the same period, interest costs might prove to 2.5-3 percent of GDP a year larger than would otherwise have been the case.
- **Italy**, with a larger debt but a smaller deficit relative to GDP, might see an increase in its annual interest payments equal to as much as 0.7 percent of GDP. Interest payments would increase by €13 billion a year more, or nearly €200 billion cumulatively over 2012-2016, averaging about 2 percent more than might be have been expected borrowing costs declined again to pre-Deauville lows.

Under Europe's tightened fiscal rules, these increases in interest payments would have to be offset with tax increases or cuts in noninterest outlays, draining equivalent amounts

from private incomes and demand. The broader effects of this additional tightening could be expected to weaken demand for exports from the northern half of the Euro Area.

Taken together, indeed, Spain and Italy account for about 8 percent of exports for the Euro Area members as whole, compared with just 2 percent for Greece, Portugal and Ireland. Comparable numbers for Germany are 7.5 percent and 1.5 percent for the two set of countries. France, by contrast, sends 12 percent of its exports to Spain and Italy, compared with just 1.7 percent to Greece, Portugal and Ireland.

Follow-on effects of weaker import demand in Spain and Italy should be expected to have significant effects on output, employment and tax revenues in those countries in northern half of the Euro Area, including Germany, France, the Netherland and Belgium, for which Spain and Italy are important markets.

3. Spillover to the Euro Area Banking System and the ECB

Prominent among the broader implications of a disorderly Greek default and Euro Area exit would be the additional capital requirements that markets and supervisors could be expected to place on European banks as a result of both actual and potential losses resulting from the asset prices declines and credit losses that would follow from a disorderly default.

Rough calculations assuming the need to offset increases in yields of 300 basis points on Spanish and Italian debt would indicate a need for an additional €100-€110 billion of capital for the larger banks covered by EBA stress tests. Factoring in the effects of further/renewed declines in Portuguese and Irish bond prices (to 20 percent of par) would add another €25-€30 billion in capital needs. Assuming as well increases in yields on French and Belgian bonds could result in a further €20-€25 billion of needs. Taking these together, the additonal sovereign buffer requirement could total nearly €160 billion. This would be four times the roughly €40 billion in sovereign exposure buffers the EBA required in its October 2011 recapitalization exercise.

Leaving aside the considerable additional capital that would be needed to provide for the increase in nonperforming loans that could be expected to result from a renewed weakening of activity across the Euro Area, these more expensive sovereign buffers to be met either by raising additional capital of this magnitude from private markets or from additional capital injections by Euro Area governments

The latter would add directly further to government debt and potentially to the deficit, depending on the precise form of capital support. If, one the other hand, the bulk is to be raised in private markets, then recent evidence suggests that this would likely result in accelerated credit deleveraging, which would have a substantial further adverse effect on Euro Area economic activity. In turn, this would further weaken government revenue in a vicious circle.

The EFSF and its soon-to-be successor, the ESM, have been promoted as the key "firewalls" to prevent contagion. They would presumably be responsible for much the extra financing that might be required for the periphery, as discussed above. Market sentiment was positively affected by revisions to these Europe's financial support mechanisms since the July EU summit. These revisions have undone much of the damage done by the Deauville Summit. EFSF lending premia were cut to nil and maturities extended in principle to 30 years. Euro Area heads of state and government pledged that the PSI treatment accorded Greece would be "unique and exceptional" and that other member states with programs would have their financing needs met until they were able to restore market access". Language was rescinded from the Treaty establishing the ESM required debt sustainability assessments and private sector involvement before new programs of official financing can be agreed. The effective lending capacity of the EFSF was boosted to €440 billion from roughly €260 billion earlier and utilization expanded to include primary and secondary purchases of sovereign, lending for bank recapitalization and agreement for "precautionary, contingent financing. The startup date for the ESM was brought forward to mid-2012 from mid-2013.

The German government, finally, began to be rumored to be prepared to agreeing in March that the EFSF should be allowed to run alongside the ESM through mid-2013, boosting EU support facilities to €1 trillion for one year only, potentially alongside additional IMF funds of another €0.5 trillion, funded partly by the €150 billion pledged by the Euro Area Heads from the ECB reserves.

Disorderly default by Greece, however, would immediately unwind what positive sentiment market remains about the adequacy of the financial support mechanism that Europe has put in place. Expectations would harden that the Euro Area governments would choose to cap combined EFSF/ESM lending at €500 billion. More significantly, hopes would fade that lendable IMF resources could be increased significantly from €280 billion at present.

That all said, the most effective "firewall" to date has been provided by the ECB, in the form of its willingness to refinance the Euro Area banking system. This has allowed banks to reduce the extent to which they have had to trim lending to the private sector and, crucially, has allowed banks in periphery countries to maintain holdings of government debt on their balance sheets. This refinancing support has been accompanied by the ongoing support from direct bond purchases under the SMP:

- SMP purchases of Spanish and Italian debt by the ECB are understood to have amounted to as much as €100 billion since July 2011;

- Analyst estimates suggest that Spanish and Italian banks may have accounted for one-third of the take-up of the ECB's €486 billion December LTRO, or €160 billion. To the extent that the latter was used to fund buying of the bonds of their respective sovereigns, this suggests funding needs (filled since last summer by the ECB) at an annual pace of roughly €0.5 trillion. These have been sufficient

to reverse only two-thirds of the 300 basis point post-Deauville run-up in Spanish bond yields and only one-third of a similar-sized run-up in Italian bond yields.

One proxy for how much the ECB has become involved as the key "firewall" in supporting weaker Euro Area government debt and banking markets in recent months the size of the ECB's balance sheet, which has risen by a stunning 9 percentage points of Euro Area GDP, to 30% of GDP, since the middle of 2011. The exposure of the ECB has been increasingly directed to weaker Euro Area periphery countries, and this exposure would be clearly put at considerable risk by rising turmoil in the Euro Area resulting from a disorderly Greek default.

4. Wider Macroeconomic Implications

A significant disruption from Greece to the broader Euro Area would have significant and global macroeconomic ramifications.

Each percentage point that a disorderly Greek default might clip off the level of Euro Area GDP would amounts to annual income foregone of about €100 billion. In turn, this would lower annual government tax revenue by about €100 billion.

The Euro Area accounts for about 19% of the world economy. If the loss in Euro Area GDP were to have a multiplier effect on the rest of the world of a similar proportion, then each percentage point lost in Euro Area GDP would translate into an income loss elsewhere of about €90 billion.

These ripples would spread beyond the Euro Area through two key transmission mechanisms:

- There would be a direct hit to global aggregate demand and trade flows. The Euro Area accounts for about 26% of world trade. Countries closer to the Euro Area -- including the Eastern and Central Europe, the United Kingdom and the Nordic countries -- would be most affected, but the ripples would be far more widespread than that. Importantly, it should be noted that exports to the Euro Area account for about 4% of China's GDP and about 2% of GDP for both India and Brazil. The US and Japan are less exposed to this direct trade channel (exports to the Euro Area account for about 1% of GDP in both cases).

- Financial linkages are potentially more powerful, especially since market developments since the onset of the crisis in 2007 have highlighted a propensity for "runs" to occur on a scale and at a pace that had previously been unimagined. Many policy makers incorrectly believed that the fallout from a Lehman bankruptcy would be contained, since markets had been apparently pricing in a significant default risk well ahead of the actual event.

5. Broader Institutional Considerations

Deliberations now about providing the additional official funding needed to facilitate an orderly restructuring of Greek debt are understandable given the large upfront outlays – €60 billion for bank recapitalization and credit enhancements – needed to secure €100 billion of nominal debt reduction, the large interest savings – on the order of €7-8 billion a year initially – that would result from the proposed bond exchange with private sector creditors. Together with this large effective interest subsidy, the reprofiling and lengthening of maturities on the new bonds to 30 years would help lay the basis for renewed growth.

Catastrophic bankruptcy, however, would put at grave risk much of what has been achieved by Greece since 2009. Social strains would intensify as the economy reeled and unemployment surged from an elevated level already in excess of 20 percent. Living standards would collapse with economic activity and the further diminution of the Greek state's ability to provide basic social services and support. Against this backdrop, it would become more difficult -- not less --to build the political consensus needed to free the economy, the government and the society from vested interests that deeper crisis would more firmly entrench. Whatever its economic benefits, a sharply depreciated "new" drachma under these circumstances would assure that the costs of adjustment, now greatly increased, would be distributed even more unevenly than at present.

Europe, too, would take a considerable step backwards, not just because of the considerable additional financial costs that look likely to result from intensified contagion and inadequate firewalls. Europe's governments and its core institutions, the ECB in particular, would incur enormous financial losses not four years removed from the large but more limited ones incurred in the wake of the Lehman crisis. Tightened fiscal rules would prove still more constraining to growth, employment and living standards under the strains of the additional resources needed to recapitalize banks and the ECB and as a result of the revenue foregone as activity contracts. Sitting governments would be hard pressed to convince electorates that their mandates should be extended.

Greece's effective expulsion from the EU would represent the first failure of European integration since the founding of the coal and steel community in 1951. This would have lasting ramifications. Successive extensions of Community and then Union institutions, accompanied by successive accessions have transformed western Europe and now central Europe, economically, politically and socially. The latter was an enormous challenge, eastern Germany especially, at far greater upfront cost than Europe now faces helping Greece and its politicians manage an economic, institutional and social transformation not all that different from that which central Europe and eastern Germany proved in the end they were able to achieve.

Similar success in Greece will take time, patience and resources from both the private and public sectors. Overcoming setbacks, recognizing what has been achieved and sustaining the commitment needed assure that what has yet to be done gets done would sustain the powerful example Europe holds for the remainder of eastern Europe and the

southern and eastern rims of the Mediterranean. Perseverance now would keep Europe on course to assume more of the greater global role that remains commensurate with its size, wealth and potential.