

Economic Outlook

February 28, 2013

- Corporate asset prices in Europe are currently priced at a 27% discount to the average in the rest of the world.
- While some of the discount is related to slower expected growth in Europe than elsewhere, most of it reflects a disaster risk premium for accepting exposure to a low-probability but high-impact event.
- When one unpacks what is commonly referred to as the “European Debt Crisis” into its three constituent parts, it becomes clear that actions taken by the European Central Bank and euro area member states have sharply reduced the risk of currency fragmentation, a systemic banking crisis, or sovereign illiquidity.

A Brief History of the European Debt Crisis, 2010 - 2013

BY JASON M. THOMAS

Asset prices in Europe are priced at a 27% discount, on average, to those in the rest of the world.¹ While some of the discount is related to slower expected growth in Europe than elsewhere, most of it reflects a disaster risk premium for accepting exposure to a low-probability but high-impact event. Fears of tail risk have their origins in the “European debt crisis,” which is actually three distinct, but closely related, crises that are in different stages of final resolution: (1) a sovereign funding crisis; (2) a banking crisis; and (3) a balance of payments crisis.

While it would be imprudent to peremptorily declare any of these crises to be fully solved, it would be equally unwise to ignore all of the progress made in addressing them over the course of 2012. Actions taken by the European Central Bank (ECB) and European Monetary Union (EMU) member governments dramatically reduced the risk of currency fragmentation, sovereign restructuring, or a banking system collapse. While the risk of disaster has largely been taken off of the table, the premium has not. A proper appreciation for the scale of the difficulties experienced in 2012 and subsequent policy changes suggests that asset prices do not reflect the extent of the healing that has occurred to date.

(1) The Spike in Sovereign Funding Costs

The most salient feature of the “European debt crisis” had been sovereign borrowers’ sudden loss of access to funding markets. In January 2010, the Greek government announced that the fiscal year 2009 deficit was 12.7% of GDP, over six times the original estimate of 2% of GDP in the 2009 budget.² The variance was due to lax revenue collection policies and structural accounting deficiencies that understandably spooked market participants. By April 2010, Greece had lost access to debt markets and formally requested financial assistance from the International Monetary Fund (IMF) and European Union (EU). In May 2012, Greece received a conditional €110 billion financing package, later supplemented

¹ Based on the ratio of average of enterprise value to trailing twelve month Ebitda among stock market constituents. The European and rest of world averages are calculated arithmetically. Data from S&P Capital IQ and Bloomberg.

² Ministry of Finance, Update of the Hellenic Stability and Growth Program, January 2010.

by a second package in February 2012 that included losses for private sector holders of Greek debt.³

Initially Greece was thought to be an isolated case, but this proved wishful thinking. Between the introduction of the euro currency in 1999 and the Lehman Brothers bankruptcy in 2008, market participants did not distinguish between the credit quality of EMU member states. Despite dramatically different fiscal profiles, the yields on 10-year notes issued by Germany and Greece were roughly the same as recently as 2007. While the Maastricht Treaty that established the EMU expressly forbade bailouts, two institutional features made EMU sovereign bonds functionally equivalent: (1) the ECB applied an identical haircut to all euro area sovereign bonds pledged as collateral irrespective of fiscal position; and (2) all euro area sovereign debts carried a zero risk weight for banks under the EU Capital Requirements Directives.⁴ Greece's sudden illiquidity and the political and technical obstacles to establishing a robust funding package alerted investors to the heretofore underappreciated risk of sovereign restructuring. The resulting contagion pushed Ireland and Portugal to seek financial assistance packages and eventually threatened the long-run solvency and market access of the third (Italy) and fourth (Spain) largest euro area economies.

The Institutional Origins of the Crisis

Although much commentary focused on the unsustainable fiscal positions of troubled euro area sovereigns, the crisis actually reflected a more fundamental problem in the architecture of the common currency. As shown in Table 1, the fiscal problems in Italy and Spain are no worse (and in some respects, much less acute) than those in the United States and United Kingdom, yet those countries' borrowing costs actually *fell* throughout the 2010-2012 period. The key difference was that the U.S. and U.K. governments borrowed in a currency that their central bank could print; i.e. market participants knew that a Treasury bill could always be redeemed at par in U.S. dollars upon maturity. By contrast, the Italian and Spanish governments were effectively borrowing in a foreign currency and could provide no similar assurances. If official support came, it would likely subordinate existing private lenders, exacerbating their ultimate losses, as happened in the case of Greece. Creditors demanded a premium for bearing this risk, which created a negative feedback loop, as the resulting increase in sovereign borrowing costs worsened the fiscal outlook, which further increased risk premia and yields.

Table 1: Fiscal Indicators and Borrowing Costs⁵

	(as a % of GDP)			10 Year Yield (7/31/2012)
	Gross Public Debt	Structural Budget Balance	Required Fiscal Adjustment to Hit 60% Debt Ratio by 2030	
France	86.01	-1.32	7.38	2.06
Germany	80.56	1.65	2.98	1.37
Greece	165.41	-1.52	13.92	25.46
Ireland	106.46	-4.59	12.88	NA
Italy	120.10	2.03	4.59	6.08
Japan	126.41	-7.72	21.08	0.79
Portugal	107.82	0.37	10.44	11.20
Spain	69.12	-5.10	12.74	6.75
United Kingdom	81.79	-3.73	13.15	1.54
United States	102.93	-5.31	19.58	1.47

³ European Financial Stability Facility, "The Second Program for Greece," February 21, 2012.

⁴ Obstfeld, M. (2013), "Finance at Center Stage: Some Lessons of the Euro Crisis," Working Paper.

⁵ IMF, Fiscal Policy Monitor, October 2012. The "structural" balance adjusts for effect of the output gap on revenues and outlays.

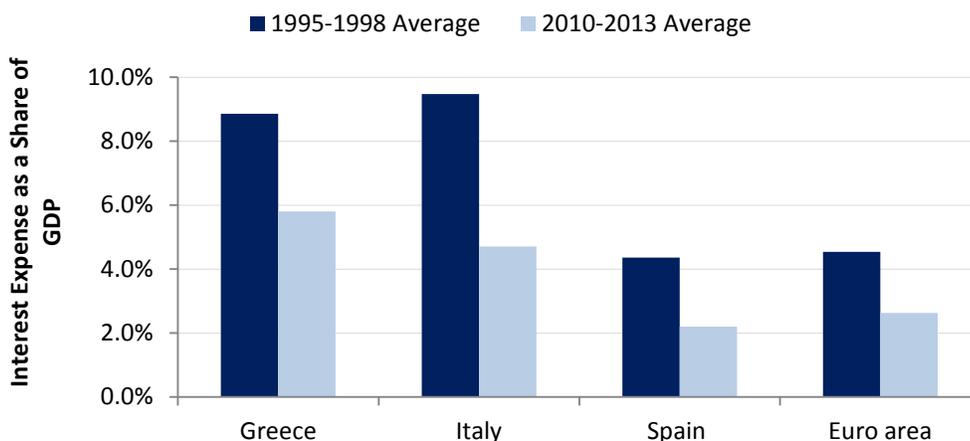
This is not to say that debt and deficits do not matter; of course they do, and governments unable to close long-run fiscal gaps will eventually experience either funding difficulties or accelerating inflation. The empirical evidence from 2010-2012 simply suggests that long-run fiscal gaps were not the drivers of yield differentials across sovereign borrowers. Other, more exotic, risks were being priced.

ECB Outright Monetary Transactions

From 2010 to 2012, the EU and ECB attempted to deal with this architectural problem through piecemeal policies aimed at temporarily calming markets.⁶ It was not until the ECB formally announced “Outright Monetary Transactions” (OMT) on September 6, 2012 that the architectural question was finally addressed. The OMT program permits the ECB to purchase “unlimited quantities” of the sovereign debt of member states that submit to a fiscal adjustment program.⁷ Through OMT, the ECB effectively announced that the debt of euro member states is fully convertible into euro currency (bank notes and reserves) at par upon maturity.

Unlike quantitative easing in the U.S. and U.K., which results in predictable declines in the foreign exchange value of the dollar and pound,⁸ respectively, OMT caused the value of the euro to surge by 13%.⁹ This seemingly counterintuitive result reflects the complex codependence that exists between fiscal and monetary authorities. A truly independent central bank lacks fiscal backing, which means its liabilities (in this case, euro currency in circulation and euro-denominated bank reserves) only have value to the extent that the bank maintains a positive net worth.¹⁰ Yet the ECB’s consolidated primary, secondary, and tertiary exposure to euro area government debt was so large relative to its capital base that the probability of maintaining a positive net worth in the context of cascading euro area defaults was virtually nil. By strengthening the fiscal authorities’ access to funding markets, the ECB increased the value of the assets on its balance sheet, which increased the market value of its liabilities (the euro currency).

Figure 1: Net Interest Expense as a Share of GDP¹¹



⁶ Specifically, the euro member states capitalized two Luxembourg-incorporated corporations, the European Financial Stability Facility (EFSF) and its permanent successor, the European Stability Mechanism (ESM). The ECB launched the Securities Market Programme [sic] to purchase the debt of sovereign member states to suppress yields.

⁷ ECB, “Technical features of Outright Monetary Transactions,” September 6, 2012. The purchases would be fully sterilized through the issuance of interest-bearing certificates of deposit (bills).

⁸ The trade-weighted value of the U.S. dollar declined by 9% during “QE2,” measured from July 2010 to June 2011.

⁹ Measured relative to the U.S. dollar from July 25, 2012 to December 2012.

¹⁰ Sims, C. (2003), “Fiscal Aspects of Central Bank Independence,” Working Paper.

¹¹ OECD, Economic Annex 92, December 2012.

Following OMT, the effective yields of Spanish and Italian government debt fell by 240 basis points and 250 basis points, respectively, on a weighted-average basis.¹² Yields are now well below levels necessary for continued market access and long-run solvency.¹³ While debt levels remain large in an absolute sense and relative to income, the burden of servicing these debts is much smaller as a share of national income today than it was in the years prior to euro adoption. Italy has devoted half as much of its national income to servicing its public debt over the last four years (4.7% of GDP) than it did in the four years prior to euro entry (9.5% of GDP). For the euro area as a whole, annual debt financing costs have fallen by over 40% (from 4.5% to 2.6% of GDP, on average).

The decline in interest expense is significant because it more than compensates for the impact of the “austerity” imposed by the European Commission in the annual budget process. For example, Italy’s interest savings relative to the pre-euro period is larger as a share of the government’s budget than the combined tax increases and spending cuts necessary to achieve the European Commission’s deficit reduction targets.¹⁴ Voters understandably angered by tax increases and spending cuts would likely face even more austerity to meet elevated net interest payments. Although yields are likely to rise periodically in response to voter frustration and other events, absent a sudden reversal in popular support for the common currency, euro area members’ yields are likely to remain at levels consistent with solvency and market access as long as the ECB wishes to remain a going concern!

(2) Concerns about Asset Quality and Capital Adequacy in the Banking System

The decline in the market value of sovereign bonds had an immediate and obvious impact on the credit quality of the domestic banking systems in impacted countries. Roughly 90% of Greek government bonds were held by Greek financial institutions and citizens; for Spain and Italy the figures were 80% and 70%, respectively.¹⁵ Given that government debt carried a zero risk weight and was the key collateral used for funding and derivatives transactions, any impairment in the value of these securities had an outsized impact on bank capital levels and broader financial stability.

Problems at European banks did not end with declines in the market value of sovereign bonds, however. European banks were the dominant investors in U.S. mortgage-backed securities and sponsored 70% of the asset-backed commercial paper (ABCP) originated prior to the subprime crisis.¹⁶ Declines in real estate prices in Europe also created fears of huge valuation losses on banks’ commercial real estate loan portfolios. In Spain and Ireland, banks incurred huge losses lending against a domestic property bubble that burst in 2008. In total, accountancy KPMG estimates that European banks held €1.5 trillion in nonperforming loans on their consolidated balance sheet as of mid-2012.¹⁷

Between May 2007 and the end of 2011, the market capitalization of European banks fell by 80%.¹⁸ The declines in market value far exceeded banks’ writedowns, which resulted in a large gap between banks’ accounting and market values. As of November 2011, the market capitalization of European banks was equal to just 57% of the tangible book value of equity.¹⁹ That is, market participants priced banks at a 43%

¹² Measured from July 25, 2012 (the day before the Draghi speech) to January 2013.

¹³ “Solvency” here is defined as an interest rate sufficiently low to avoid an explosive interest rate-growth differential.

¹⁴ The net increase in the cyclically-adjusted primary balance is 3.9% GDP, according to the IMF Fiscal Monitor, which is 0.9% of GDP less than the interest savings.

¹⁵ Acharya, et al. (2012), “A tale of two overhangs: the nexus of financial sector and sovereign credit risks,” *Banque de France Financial Stability Review*.

¹⁶ Shin, H. (2012), “Global Banking Glut and Loan Risk Premium,” Mundell-Fleming Lecture, 2011 IMF Annual Research Conference.

¹⁷ KPMG, *Global Debt Sales Survey 2012*.

¹⁸ EuroStoxx Bank Index.

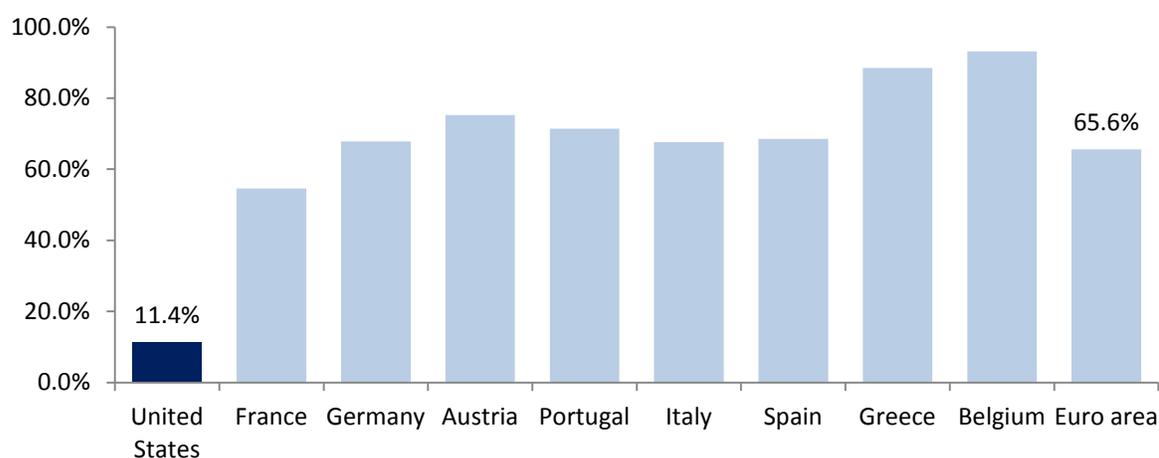
¹⁹ IMF, 2012 Global Financial Stability Report, April 2012.

discount to their accounting values. Many banks had been writing asset values up even as the market applied steeper discounts to those same assets: between 2007 and the third quarter of 2011, the book value of the 20 largest European banks increased by 35% even as these banks' market values declined by 53%.²⁰

Real Economic Impact

Suspect bank asset values and capital shortfalls have an exaggerated impact on economic activity in the euro area because the financial system is far more bank-centric than that of the U.S. Nonfinancial corporate loans account for 65.6% of total euro area outstanding debt, relative to just 11.4% of the U.S. debt market (Figure 2). Without well-developed market-based funding alternatives, any pullback in bank lending triggers an especially acute credit crunch that limits businesses' ability to expand and also requires businesses to operate with greater cash balances to self-insure against liquidity risks. In total, bank credit to nonfinancial private sector borrowers contracted by 3.8% during 2012, causing the overall euro area economy to contract by 0.5% over the course of the year.

Figure 2: Nonfinancial Corporate Loans as a Share of Outstanding Debt²¹



Recapitalization and Banking Union

In December 2011, the European Banking Authority (EBA) required euro area banks to raise a total of €114.7 billion of capital to meet a 9% core tier one capital requirement by the middle of 2012. As of July, 27 banks were able to raise €94.4 billion in additional equity. Those banks that were unable to raise the required capital were either restructured or received public assistance.²² In the case of Spain, the EBA's original €26 billion capital shortfall estimate was repeatedly revised upwards until July 2012 when the Eurogroup granted €100 billion to the bank recapitalization fund of the Spanish government to cover the estimated capital shortfall among Spanish banks.²³

In addition to explicit support, the ECB also helped banks rebuild capital buffers through two unlimited longer-term refinancing operations in December 2011 and February 2012. These operations allowed European banks to profit from a "carry trade" by borrowing from the ECB at 1% to buy much-higher yielding government debt. The IMF estimates that of the €513 billion net increase in ECB bank credit provided

²⁰ Acharya and Steffen (2012)

²¹ IMF, Global Financial Stability Report, April 2012.

²² European Banking Authority, Update on the implementation of the capital exercise, July 11, 2012.

²³ European Stability Mechanism, Assistance to Spain, available at: <http://www.esm.europa.eu/about/assistance/spain/index.htm>.

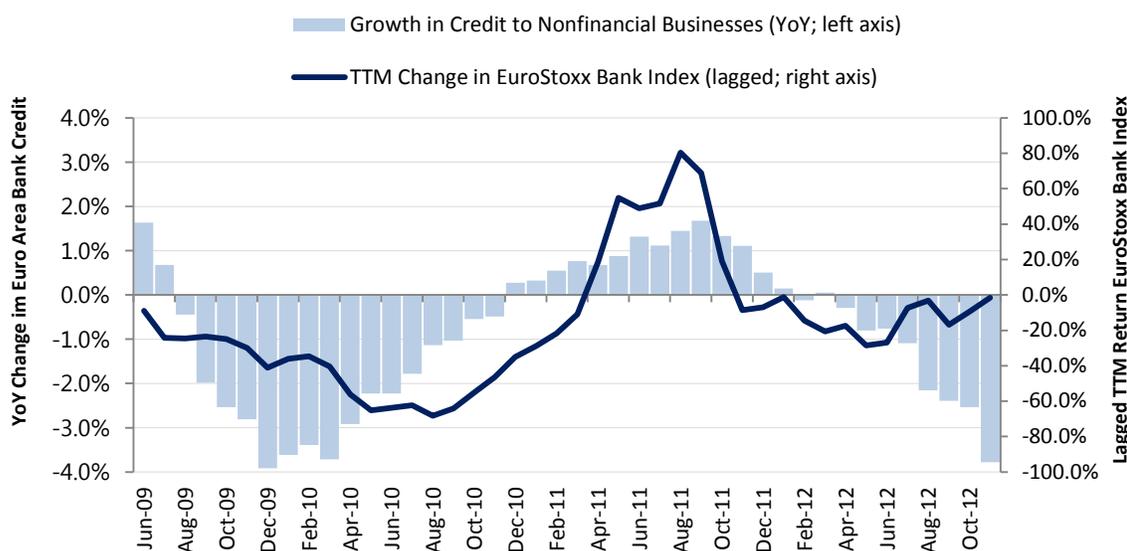
through the LTROs, €398 billion was used to retire maturing bonds and €115 billion was used to acquire additional government debt. With Italian and Spanish 10-year notes yielding above 7% and 5.6%, respectively, just prior to the allotments, it is conceivable that the net interest income from the LTROs alone increased bank capital levels by €5 billion in 2012.

More significant for longer-run reform was the December 2012 agreement among finance ministers to establish the “Single Supervisory Mechanism” (SSM), or banking union. The SSM will grant the ECB direct oversight of euro area banks in cooperation with national regulators. The divergence between banks’ accounting and market values made obvious the extent of regulatory forbearance in the current system. In addition, differing “rulebooks,” resolution regimes, and counterparty protections led to fragmentation as international banking groups curtailed cross-border activities.²⁴ The SSM would create a single set of rules, supervisory authority, resolution mechanism, and deposit insurance mechanism for the entire euro area to reduce the uncertainty associated with cross-border operations and eliminate the prospect of discriminatory treatment in any domestic bank resolution.²⁵

Rebound in Bank Equity Values

Between June 2012 and February 2013, the stock market value of European banks increased by 58%, on average.²⁶ Increased bank capital levels, the successful disbursement of funds to recapitalize the Spanish banks, and the political commitment to banking union all combined to increase market participants’ confidence in the sector. While it is unlikely that current bank capital levels are adequate, the reversal in banks’ stock market values is a hopeful sign that the credit crunch that plagued the euro area economy in 2012 will end this year. The trailing twelve month’s (TTM) return on the EuroStoxx Bank Index is a statistically significant predictor of credit growth over the following 18 months (Figure 3).²⁷ If current policy and market trends are sustained, the increase in banks’ net worth should result in the first signs of marked improvement in credit markets by the middle of 2013.

Figure 3: Bank Stock Returns and Credit Availability²⁸



²⁴ IMF, “A Banking Union for the Euro Area,” Staff Discussion Note, February 2013.

²⁵ Constâncio (2013), “Banking and Supervision under Transformation,” Helsinki, Finland.

²⁶ EuroStoxx Bank Index.

²⁷ The correlation between the lagged variables is 58%, with a GLS t-statistic of 4.5.

²⁸ Carlyle Analysis of ECB Data and Bloomberg.

Crisis (3): Capital and Financial Account Deficits in ‘Peripheral’ Countries

The financial fragmentation evident during the height of the banking crisis stemmed, in part, from banks efforts to hedge “redenomination risk,” or the potential that a current member state would elect to leave the euro area and reintroduce its own national currency.²⁹ To manage this risk, multinational banking groups sought to match assets and liabilities on a country-by-country basis. For instance, a French bank with a Spanish subsidiary would ensure that each loan extended to Spanish borrowers would be funded, on a euro-for-euro basis, with deposits or wholesale funding from Spain.³⁰ At the same time, corporate treasurers increasingly “swept” account balances in “peripheral” banks on a nightly basis and re-deposited the funds in accounts open at German, French, or Dutch banks.³¹ Asset managers sought to reduce “peripheral” exposures and sold Greek, Portuguese, Spanish, or Italian bonds, loans, and equity.

In conjunction, these simultaneous fund flows from the “periphery” to the “core” generated a full-blown balance of payments crisis similar to that experienced in many emerging market crises. Indeed, many analysts who predicted the demise of the euro erroneously analogized the situation to the collapse of Asian fixed exchange rate regimes in the 1990s. The difference is that in a fixed rate system, a country is forced to devalue whenever fund outflows exceed the country’s foreign exchange reserves. In the Eurosystem, by contrast, the role of foreign currency reserves is replaced with a system of inter-central bank debits and credits called TARGET2. If the Spanish banking system lacks the liquidity to meet deposit outflows, it can borrow from the Bank of Spain, which, in turn, borrows (via the ECB) from the central bank of the banking system in receipt of the deposits (the German Bundesbank, for instance). Spain never needs to worry about running out of Eurosystem debits because the Bank of Spain’s credit line has no limit. The only constraint on the infinite provision of cross-border liquidity is the ECB collateral rules, which require the Spanish banks to post eligible collateral to the Bank of Spain as a condition of any loan.

It is astonishing to consider how quickly these inter-central bank claims grew during the height of the balance of payment crisis. From June 2011 to June 2012, the net debits accumulated by the Bank of Italy and Bank of Spain to the rest of the EuroSystem grew by €600 billion – an annual growth rate of 1259% (Figure 4). Over the same period, the net claims of the German Bundesbank on the rest of the Eurosystem grew by nearly €400 billion. To put into perspective, these single-year fund flows were larger than the GDP of Switzerland.

“Whatever it Takes”

Ironically, it was the severity of the balance of payments crisis that led the ECB Governing Council to embrace OMT. Prior to the balance of payments crisis, analysts could (and did) argue that interest rate differentials across euro area member states simply reflected the market’s perception of credit risk: if 10-year German bunds yielded 1.5% while Italian BTPs yielded 7%, for example, it must be a reflection of the relative strength of German public finances. The solution was for Italy to embrace fiscal rectitude. If, however, some portion of the yield differential reflects redenomination risk, then elevated borrowing costs are not just the fault of the profligate peripheral government but also an issue properly in the jurisdiction of the central bank.

This was precisely the argument put forward by ECB President Draghi in his now-famous July 2012 speech.³² Draghi argued that rising yields on Spanish and Italian debt “have to do more and more with convertibility, with the risk of convertibility” (i.e. the risk that a Spanish euro may one day be worth less than a German

²⁹ Cecchetti, et al. (2012), “Interpreting TARGET2 Balances,” Bank for International Settlements.

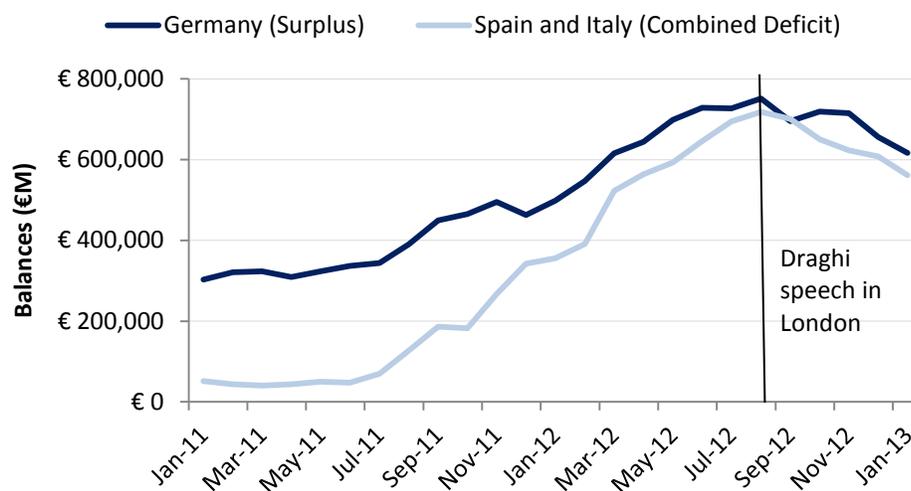
³⁰ This meant that parents in France and Germany would often place surplus funds on deposit at the ECB rather than lend to their own subsidiaries in Spain and Portugal.

³¹ See “Euro Contingency Planning, Deloitte, December 2011.

³² Global Investment Conference, London, July 26, 2012.

euro) than with credit risk. Draghi further argued that to the extent that yields reflect redenomination risk rather than borrower-specific factors, they “come into our mandate. They come within our remit.” And under these circumstances, Draghi assured the audience through his now famous declaration, “within our mandate, the ECB is ready to do whatever it takes to preserve the euro. And believe me, it will be enough.”

Figure 4: Target2 Account Balances³³



Since Draghi’s speech, euro area cross-border fund flows have largely reversed. Between August 2012 and January 2013, Spanish and Italian debits to the rest of the Eurosystem declined by €158 billion, while German net claims fell by €111 billion during this period. While the cross-border funding markets remain dysfunctional, the extreme balance of payments pressures that threatened the euro’s survival have largely abated and, in some cases, reversed. Investment funds have flowed back to peripheral economies and redenomination risk is felt less acutely – and hedged less aggressively – by bank risk managers and corporate treasurers. Few speeches have had as demonstrable an impact on international finance as Draghi’s.

The Outlook for 2013

The scale of the progress made toward resolving the three-pronged “European debt crisis” is easily obscured by the poor performance of the euro area economy in 2012. The euro area has been in-and-out of recession for the past five quarters, with peripheral countries (excluding Greece) contracting at an annual rate of 2%. However, as the financial stresses that caused the recession abate, growth is likely to return. It is only the timing and pace of the recovery that remain uncertain.

Most economic forecasts anticipate that the euro area economy will be larger in Q4-2013 than it was in Q4-2012. In its winter 2013 Forecast, the European Commission estimates that the euro area GDP will expand by 0.7% over the course of 2013.³⁴ This is very close to the estimates from the IMF and OECD, which anticipate the euro area will grow by 0.5% and 0.6%, respectively.³⁵ While representing progress over the contraction of 2012, these forecasts likely understate the upside potential of growth in the euro area.

Given the severity of the financial stresses Europe endured in 2012, it is somewhat remarkable that the economy only contracted by 0.5% in 2012. One would anticipate that the stabilization in credit aggregates

³³ Carlyle Analysis of ECB data.

³⁴ European Commission, European Economic Forecast, Winter 2013.

³⁵ IMF, World Economic Outlook: January 2013 Update; and OECD, Euro Area - Economic forecast summary, November 2012.

would in itself be sufficient to boost growth by more than a full percentage point in 2013. It is easy to forget that growth in the euro area outpaced that of the United States during the second half of 2010 and first half of 2011. Growth in this period between the end of the Great Recession and onset of the debt crisis was as surprising to forecasters then as similar growth rates would be today. In the 2010 World Economic Outlook, the IMF forecast a 1.0% growth rate for the euro area in 2010, followed by a 1.5% growth rate in 2011. The forecast for Germany was similarly subdued: 1.2% and 1.7%, respectively, in 2010 and 2011. In 2010, the German economy expanded at a 4.0% rate; in 2011, growth was 3.1%. For the euro area, growth was 2.0% in 2010 and the first half of 2011 before sovereign yields spiked in the second half of the year.

Conclusion

Growth in Europe is expected to be slow in 2013 and 2014, but corporate assets are priced with something far worse in mind. The tail risks thought to generate these price discounts – the potential for currency fragmentation, banking system collapse, or sovereign illiquidity – have largely been taken off of the table by the actions of the ECB and EMU member states. There is a tendency of some to adopt a fatalistic attitude towards Europe that ignores specifics in favor of a general sense of unease. Today, price discounts in Europe may have more to do with this psychological aversion rather than the underlying risks themselves.

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