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# Europe's Stress Test: Good, but Not Enough

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## Abstract

Europe's banking system has passed its stress test. The system is on solid financial ground. While a mountain of nonperforming assets remains to be worked through, the system has enough capital to do so without help from governments.

Despite the clear progress, it is not clear whether the test will be sufficient to jump-start lending. Credit to households and businesses continues to decline, and while this is due in part to weak demand, lenders' reluctance to extend credit is also a problem. The stress tests probably were not rigorous enough to significantly alleviate banks' reluctance to lend more, at least not any time soon.

# Europe's Stress Test: Good, but Not Enough

BY MARK ZANDI AND PETR ZEMCIK

**E**urope's banking system has passed its stress test. The system is on solid financial ground. While a mountain of nonperforming assets remains to be worked through, the system has enough capital to do so without help from governments.

Europe has come a long way since it bungled previous attempts at stress-testing in 2010 and 2011. Soon after the 2010 test, much of the Irish bank system failed. Dexia, the large Belgian-French bank, collapsed after the 2011 test. No significant European banks are likely to fail during the horizon of this year's stress test, which goes through 2016.

Despite the clear progress, it is not clear whether the test will be sufficient to jump-start lending. Credit to households and businesses continues to decline, and while this is due in part to weak demand, lenders' reluctance to extend credit is also a problem. The stress tests probably were not rigorous enough to significantly alleviate banks' reluctance to lend more, at least not any time soon.

## The numbers

Of the 150 banks tested by the European Central Bank and European Banking Authority, 25 technically failed. That is, as of December 2013, 25 banks either did not meet the minimum 5.5% Tier 1 capital ratio required after taking the test (see Box), did not pass the ECB's Asset Quality Review, or did not have the 8% capital required in the baseline scenario.

Not surprisingly, these banks' headquarters are in Greece, Cyprus and Italy (see Table 1). Yet the German, French and Spanish banking systems passed with only a few blemishes.

Fortunately, European banks were able to raise almost €60 billion in capital in 2014 as European financial markets had a good year, at least until the recent global correction.

This allowed 17 of the 25 failed banks to raise sufficient capital to pass the test. Therefore, only eight banks now need to raise additional capital, totaling just over €6 billion.

## Reasonably rigorous

The European stress test was reasonably rigorous. The economic scenario to which the banks were required to stress their financial health was sufficiently negative, and the post-stress minimum capital ratio of 5.5% was sufficiently high.

It is encouraging that the stress scenario cut nearly 4 percentage points from the banking system's overall capital ratio. This compares favorably with the haircut of nearly 3 percentage points to the capital ratio of American banks in the 2014 CCAR stress test.

The European bank stress test was conducted using banking and economic data through the end of 2013. The test ran over three years through the end of 2016. This is a similar forecast horizon to the annual CCAR test conducted by the Federal Reserve in the U.S.

The first phase, the bank-led stress test, was completed in June. In a quality-assurance second phase from July to August, the ECB used a top-down stress test model to check and challenge the banks' results. The third phase combined the stress-testing results with the results of the Asset Quality Review, and ended in September. The final phase ended with the recent disclosure of the results.

The stress-testing exercise is conducted for a sample of banks making up at least 50% of the financial sector in each EU member state. The resilience of banks is tested both under a common baseline and the adverse alternative scenario. The main criteria are ex-

pressed in terms of Common Equity Tier 1. The lower capital limit for the Common Equity Tier 1 ratio is 8% for the baseline and 5.5% for the adverse scenarios. The focus is on solvency of banks and the stress is applied to both trading and banking book assets.

The tests' principal focus is on credit and market risk. Credit risk includes exposure to all counterparties, including firms, households and sovereigns, and all positions, including loan portfolios. The impact is quantified using financial metrics, such as the probability of default and the loss given default.

Market risk characterizes exposure to changes in asset prices. Profit and loss is calculated using a common set of stressed risk drivers to positions for trading, for sale, and at fair value. All financial assets and liabilities are evaluated at fair value. Other considered risks are sovereign, securitization, and cost of funding risks.

**Table 1: Failed European Banks by Country**

	Tier 1 capital ratio			# of failed banks			Capital shortfall € mil
	2013	2016 Base	2016 Adverse	Total	Base	Adverse	
<b>All EU banks</b>	<b>11.1%</b>	<b>11.7%</b>	<b>8.5%</b>	<b>123</b>	<b>14</b>	<b>23</b>	<b>24,189</b>
Italy	9.5%	9.3%	6.1%	15	8	9	9,413
Greece	9.9%	8.0%	2.0%	4	2	3	8,721
Cyprus	4.4%	9.5%	-1.0%	3	1	3	2,365
Portugal	11.1%	10.1%	5.9%	3	0	1	1,137
Austria	10.5%	10.6%	7.4%	6	1	1	865
Ireland	13.2%	12.2%	7.0%	3	0	1	855
Belgium	14.0%	11.9%	7.2%	5	0	2	540
Germany	12.8%	12.8%	9.1%	24	1	1	228
Slovenia	15.9%	14.4%	6.1%	3	0	2	65
France	11.3%	11.8%	9.0%	11	1	0	0
Denmark	14.2%	15.4%	11.7%	4	0	0	-
Finland	16.4%	17.6%	12.0%	1	0	0	-
Hungary	15.9%	17.0%	11.9%	1	0	0	-
Latvia	9.8%	10.5%	7.7%	1	0	0	-
Luxembourg	15.9%	15.1%	11.2%	2	0	0	-
Malta	10.7%	13.2%	8.9%	1	0	0	-
Netherlands	11.6%	12.2%	8.9%	6	0	0	-
Norway	11.3%	14.4%	11.3%	1	0	0	-
Poland	13.3%	15.4%	12.3%	6	0	0	0
Spain	10.4%	11.6%	9.0%	15	0	0	0
Sweden	15.3%	16.9%	13.7%	4	0	0	0
United Kingdom	9.8%	11.2%	7.8%	4	0	0	0

Sources: European Banking Authority, Moody's Analytics

Perhaps as important, as part of the stress test process, European banks' lending data were cleaned up, and definitions of loan performance were harmonized, more or less, across Europe. An additional nearly €140 billion in loans were determined to be nonperforming as a result of this process, bringing the total to just under €900 billion. For context, the European banking system holds €22 trillion in assets.

While the European banking system is far from integrated, stress-testing has significantly helped move integration forward. This is vital to ensure that credit flows more freely across Europe, bringing down borrowing costs and improving access to credit in the more hard-pressed peripheral euro zone member nations.

### Missed opportunities

Despite the deserved kudos for European bank regulators, they have much more work to do to bring their stress tests up to the standards of the U.S.

Federal Reserve and the U.K. Prudential Regulatory Authority.

The variations in economic scenarios used to stress European banks seemed somewhat arbitrary across countries. The decline in GDP, increase in unemployment, and corrections in stock and real estate markets varied considerably from country to country (see Chart 1). This is not necessarily bad: National economies could certainly differ. But such differences are not what appeared to motivate the variation in scenarios.

The definitions of capital used in the stress tests vary across countries. Basel III requires a common definition, but each country may have its own timetable for adopting these standards. The Tier 1 capital ratio can land in very different places depending on what is counted as capital and how risk-weighted assets are derived.

This is one reason why, in the American stress tests, an increasingly important measure of financial strength is the leverage

ratio. This is simply the ratio of Tier 1 capital, including shareholder's equity and reserves, to total assets. It is tougher to fudge this number and easier to make apples-to-apples comparisons across banks.

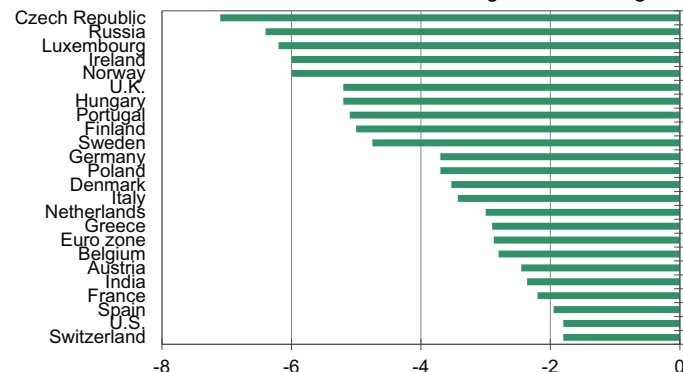
Also lacking in the European stress tests are supplemental stress scenarios for those banks with large global financial market exposures and significant counterparty risks. The Federal Reserve requires large multinational banks to consider how more serious stresses in global financial markets would affect them and their counterparties. This would appropriately raise the bar to pass the tests for many of Europe's biggest too-big-to-fail banks.

### Will credit flow?

The key question for Europe's stress tests is whether they will result in more lending. Lending to households and nonfinancial companies continues to sink and lending rates still vary considerably across nations (see Chart 2). If European banks do not pick up their

### Chart 1: Stress Levels Vary by Country

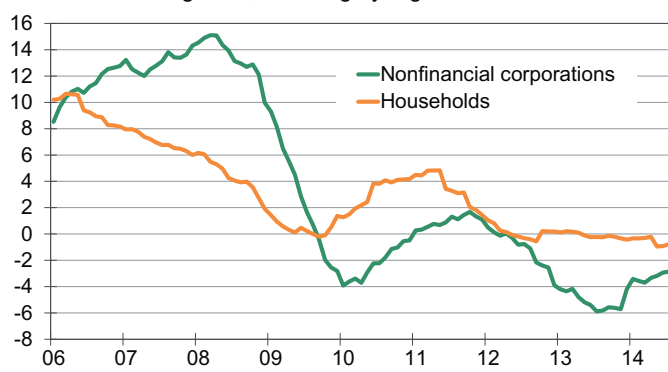
Real GDP decline in adverse scenario, % change start to trough



Sources: National statistical offices, EBA, Moody's Analytics

### Chart 2: Credit Remains Constrained

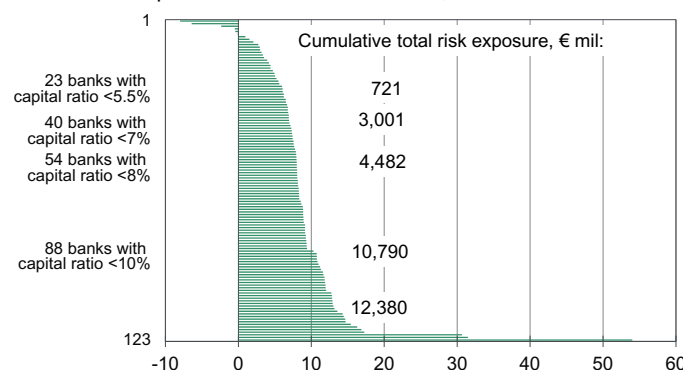
Euro zone credit growth, % change yr ago



Sources: ECB, Moody's Analytics

### Chart 3: Banks in an Adverse Scenario

Core Tier 1 capital ratio for 123 institutions, %



Sources: EBA, Moody's Analytics

lending, it is hard to see the European economy gaining traction soon, particularly since banks account for such a large share of total credit flows, at least compared with the U.S.

It is thus somewhat nettlesome that a significant number of sizable European banks had just over the minimum 5.5% Tier 1 capital ratio. Some 40 banks had ratios below 7% post-stress, accounting for almost one-fourth of the banking system's risk exposure (see Chart 3). It is hard to know whether these banks were able to shore up their finances over the past year (remember these results are for December 2013), but this is an uncomfortably large part of the banking system. It

stands to reason that at the very least these banks will be restricted in their dividend payouts, but more importantly from a macroeconomic perspective, they will remain under pressure to shrink their assets and limit their lending.

That global financial markets

have recently turned less hospitable will make it more difficult for European banks to shed troubled assets and shore up their liquidity and capital. Stock prices are off their recent highs, and credit spreads have widened substantially throughout Europe, but particularly on the periphery.

Bank liquidity also remains an issue. The European banking system depends more heavily on potentially volatile wholesale funding than it does on more stable deposits. The system's loan-to-deposit ratio is high by global standards. The stress tests suggest the system has enough capital to lend more, but it may not, given its liquidity constraints.

### Litmus test

Europe passed an important litmus test with the release of its bank stress test results. These are a necessary step towards banking integration, and ultimately the economic integration needed to restart European economic growth. However, they are unfortunately not a sufficient condition.

Therefore, the ECB will need to remain aggressive in its efforts to get credit flowing. It has recently started buying banks' covered bonds and will soon buy various asset-backed securities. Its principal target is lending to small and midsize businesses. While this should help, progress will likely be slow because the effort is complicated by having to make purchases in different countries. How much of these the ECB can buy is also a question. Odds are high the ECB will need to expand its asset purchases to include corporate bonds and perhaps even sovereign debt.

Even under the most optimistic scenarios, the European economy is likely to slog forward for the foreseeable future. It faces too many impediments to growth to do otherwise. But the bank stress tests will help ensure that the financial system is no longer among them.

# About the Authors

## Mark Zandi

Mark M. Zandi is chief economist of Moody's Analytics, where he directs economic research. Moody's Analytics, a subsidiary of Moody's Corp., is a leading provider of economic research, data and analytical tools. Dr. Zandi is a cofounder of Economy.com, which Moody's purchased in 2005.

Dr. Zandi's broad research interests encompass macroeconomics, financial markets and public policy. His recent research has focused on mortgage finance reform and the determinants of mortgage foreclosure and personal bankruptcy. He has analyzed the economic impact of various tax and government spending policies and assessed the appropriate monetary policy response to bubbles in asset markets.

A trusted adviser to policymakers and an influential source of economic analysis for businesses, journalists and the public, Dr. Zandi frequently testifies before Congress on topics including the economic outlook, the nation's daunting fiscal challenges, the merits of fiscal stimulus, financial regulatory reform, and foreclosure mitigation.

Dr. Zandi conducts regular briefings on the economy for corporate boards, trade associations and policymakers at all levels. He is on the board of directors of MGIC, the nation's largest private mortgage insurance company, and The Reinvestment Fund, a large CDFI that makes investments in disadvantaged neighborhoods. He is often quoted in national and global publications and interviewed by major news media outlets, and is a frequent guest on CNBC, NPR, Meet the Press, CNN, and various other national networks and news programs.

Dr. Zandi is the author of *Paying the Price: Ending the Great Recession and Beginning a New American Century*, which provides an assessment of the monetary and fiscal policy response to the Great Recession. His other book, *Financial Shock: A 360° Look at the Subprime Mortgage Implosion, and How to Avoid the Next Financial Crisis*, is described by the New York Times as the "clearest guide" to the financial crisis.

Dr. Zandi earned his B.S. from the Wharton School at the University of Pennsylvania and his PhD at the University of Pennsylvania. He lives with his wife and three children in the suburbs of Philadelphia.

## Petr Zemcik

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Moody's Analytics added Economy.com to its portfolio in 2005. Now called Economic & Consumer Credit Analytics, this arm is based in West Chester PA, a suburb of Philadelphia, with offices in London, Prague and Sydney. More information is available at [www.economy.com](http://www.economy.com).

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