Russell Indexes

Product Insight

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Greece: Re-emerged

The Greek economy has been a world concern for at least the last several years. Since the country began revealing unsustainable levels of public debt in 2009, it has been in an unfortunate economic tailspin that at times has threatened to pull apart the entire European Monetary Union (EMU). In order to contain the Greek debt crisis, the European Commission (EC), the European Central Bank (ECB) and the International Monetary Fund (IMF), commonly referred to as “the troika,” have intervened through a series of bailouts and debt write-downs. At time of publication of this paper, the actions of the troika appear to have removed any imminent threats of an outright Greek default or exit from the EMU. Unfortunately, more than loan repayments will follow the diffusing of the crisis, since any opportunities in the Greek economy have become inherently riskier exposures for global investors.

Russell’s global indexes methodology describes a three-year path toward a country’s potential reclassification – by way of Russell’s developed, emerging or frontier market categorization – as having become either more or less risky for investors. As part of Russell’s market risk reviews, we analyze both the macro and the operational risk profiles of countries across the Russell Global Index and the Russell Frontier® Index. Russell’s methodology requires developed markets to be, in general, the least risky and most efficient in which to trade.

Greece, which Russell designated a developed market in 2001, has been on a path toward reclassification as an emerging market since 2010, having failed the operational and/or macro risk portions of our review over the past two years. During our 2013 global market risk reviews, when we again evaluated the two risk profiles, Greece failed both tests. (We discuss this in detail below.) To confirm the validity of our own conclusions, as required by our methodology, we conferred with market participants across a range of disciplines.[2]

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[1] The author wishes to thank Ryan Naranjo for his contributions to this research. Thanks also goes to the Russell Indexes research and editorial teams for their support.

[2] The Russell Indexes Client Advisory Board comprises market participants of varied disciplines from many of the world’s leading financial institutions. The board has historically met annually, in September.

None of the feedback we have received suggests our signals were incorrect or misleading. Therefore, effective with June 2013 index reconstitution, Russell will reclassify Greece as an emerging market.

Any index provider's downgrading of a market's categorization is a consequential decision, and Russell does not take this action lightly – which is why we maintain a multi-year requirement before a change to classification. Although the size of the Greek market has declined significantly in the past three years, there are still costs associated with this change for indexers of developed and emerging markets. Additionally, a negative stigma may attach to any developed market that loses its advanced designation. In the case of Greece, this is already manifest with the reincorporation and relisting of Coca-Cola Hellenic (HBC). Coke Hellenic, Greece's largest publicly traded company,[3] has reincorporated in Switzerland and is in the process of tendering its Athens's listed shares in exchange for a new, premium listing on the London Stock Exchange. The company believes escaping the Greek market will boost trading volumes and increase its exposure to greater numbers of international investors.[4]

Russell's reclassification of Greece as an emerging market may invite a few questions from our clients and the public. The first might be, "Well . . . if Greece, why not Portugal or Spain?" While both of those countries have had their share of problems, and although neither is immune from a potential change in market-risk status, we haven't seen the same degree of decline as we've observed in Greece – nor the same rise in risk. As part of the analysis presented below, we have in many instances created separate breakouts for the GIIPS countries (Greece, Ireland, Italy, Portugal and Spain) that highlight the disproportionate decline of Greece across a variety of factors.

A second question might be, "Why pass a troubled country to emerging markets versus taking it out of your indexes altogether?" There are several answers to this question, and we should start by re-emphasizing that our set of rules instructed us to do so. Additionally, Russell Indexes does not currently view Greece as being an uninvestable market – just a riskier one. We believe a country that has become systemically riskier, while remaining capable of economic rebound, is more appropriately categorized as an emerging market.

Russell Indexes conducts a multi-factor evaluation of global markets to assess risk. As we noted above, in order to arrive at the most accurate market risk categorization possible, Russell evaluates both macro risk and operational risk in a country.[5, 6] Russell assesses macro risk by examining economic size, via gross national income per capita as defined by the World Bank; currency, banking and sovereign risk, via the Economist Intelligence Unit Country Risk Score; advanced/emerging market status, as designated by the International Monetary Fund's (IMF); and sector representation. We assess operational risk by examining variables including elements of the settlement cycle, currency-related restrictions and liquidity. Other commonly used gauges of market development and risk include returns-based analyses and examinations of a market's size and composition.

These measures show support for the reclassification of Greece as an emerging market. In the following sections we review the variety of measures used by Russell Indexes, as well as our clients, to assess market risk.

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[3] Total market capitalization as of January 31, 2013.

[4] October 11, 2012 HBC press release, available at: http://www.coca-colahellenic.com/investorrelations/

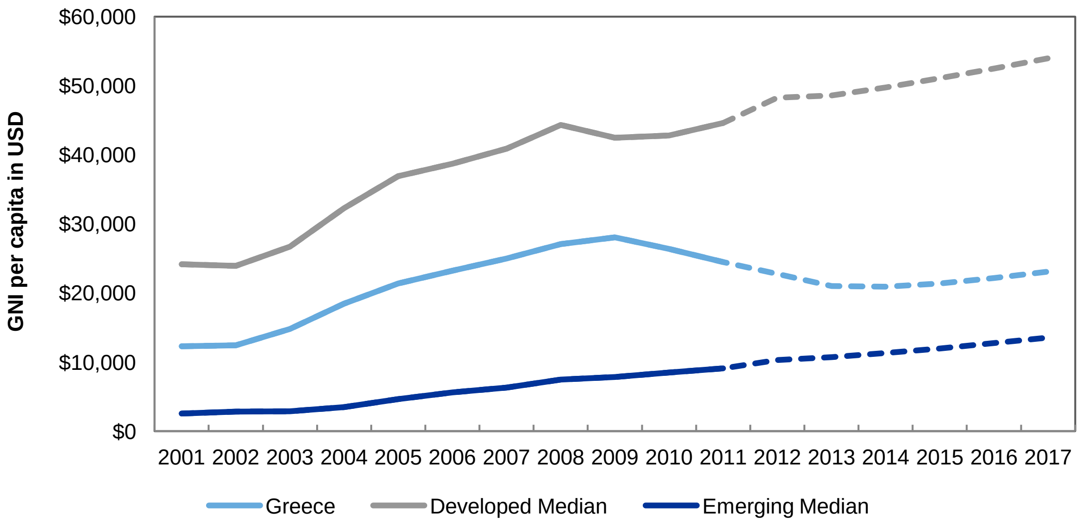
[5] For more details, please consult the Russell Indexes Global Index Construction and Methodology document, available at: http://www.russell.com/indexes/documents/Global_Indexes_Methodology.pdf

[6] Also please consult the Russell Indexes Country Guidebook, which is available by contacting client service at: index@russell.com.

Gross national income (GNI) per capita

Gross national income per capita is an important indicator of a country's economic size and level of development. Russell measures GNI per capita, sourced from the World Bank, as one of several inputs into the multi-factor model we use to assess country risk. As shown in Figure 1, although Greece's GNI per capita has traditionally been lower than most other developed markets, over the last decade it has generally tracked to the developed-markets average. However, since 2009, we have watched Greece's GNI per capita decline while the median developed-market country's GNI per capita has continued to increase. A sustained downward trend in GNI per capita is especially troubling in a developed market, where, in general, investors expect more stability and less directional variability of economic output. For Greece, the IMF projects a continued decrease in gross domestic product (GDP) per capita into 2014.[7] GDP per capita is a comparable measure to GNI per capita, and both are widely used as indicators of economic development. Greece's divergence from its developed-markets peers is an indication that the country has become more risky.

Figure 1 / GNI per capita (in USD) of Greece, of the median country in the Russell Developed Index and of the median country in the Russell Emerging Markets Index from 2001–2011. Figures from 2012–2017 are IMF-forecasted GDP per capita and are noted by dashed lines.

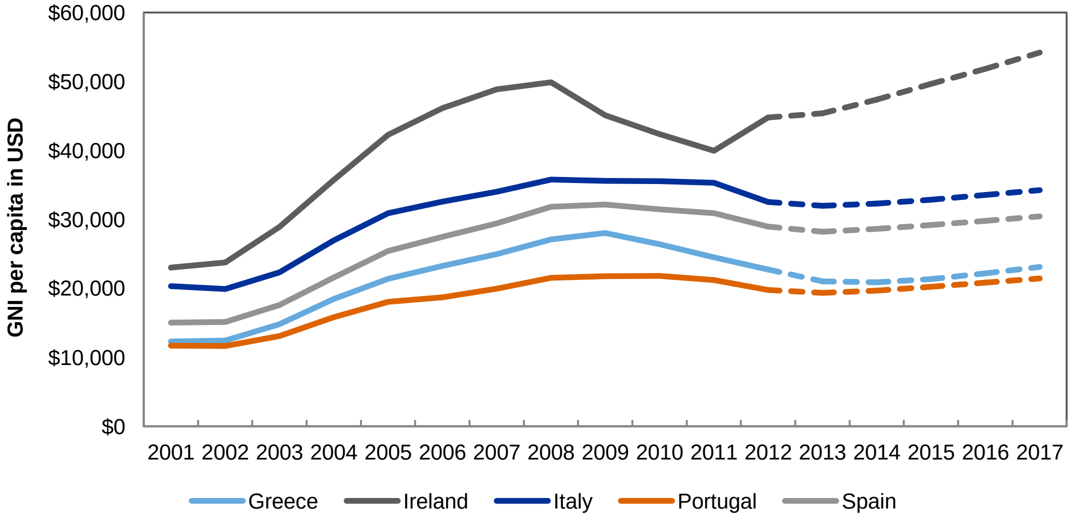


Sources: The World Bank and IMF

We also examined some eurozone developed-market countries that have been under economic distress much like Greece (i.e., the other GIIPS countries) in order to get a better understanding of GNI per capita performance in a less than stable and thus comparable cohort. In this group, Greece has experienced the most persistent year-over-year losses of GNI per capita, as shown in Figure 2.

[7] See the IMF's World Economic and Financial Surveys: World Economic Outlook Database at http://www.imf.org/external/pubs/ft/weo/2012/02/weodata/index.aspx.

Figure 2 / GNI per capita (in USD) of the GIIPS cohort from 2001–2011. Figures from 2012–2017 are IMF-forecasted GDP per capita and are noted by dashed lines.



Sources: The World Bank and the IMF

Economist Intelligence Unit (EIU) Country Risk Score

The EIU Country Risk Score is a composite measure averaging sovereign, financial sector and currency risks. Russell uses the EIU score as an input to the macro risk portion of its market reviews. An EIU score of 55 or greater for a developed or emerging country results in that country's failing the macro risk portion of Russell's review. Historically, developed-market country scores have tended to fall below 40, with a standard deviation among developed country scores of 8.3 points[8,] but through the recent distressed market environments, scores have trended higher. As can be seen in Table 1, Greece's score has risen significantly – causing it to fail the macro risk portion of Russell's assessment in 2012 and again in 2013 (using prior year's data).

Table 1 / EIU Country Risk Scores as of year-ends 2010–2012 for the GIIPS countries as well as the median country in the Russell Developed Index and the median country in the Russell Emerging Markets Index.

Country	2010	2011	2012
Greece	46	64	66
Ireland	43	45	46
Italy	35	40	40
Portugal	43	50	47
Spain	36	38	43
Developed Median	26	28	31
Emerging Median	40	41	41

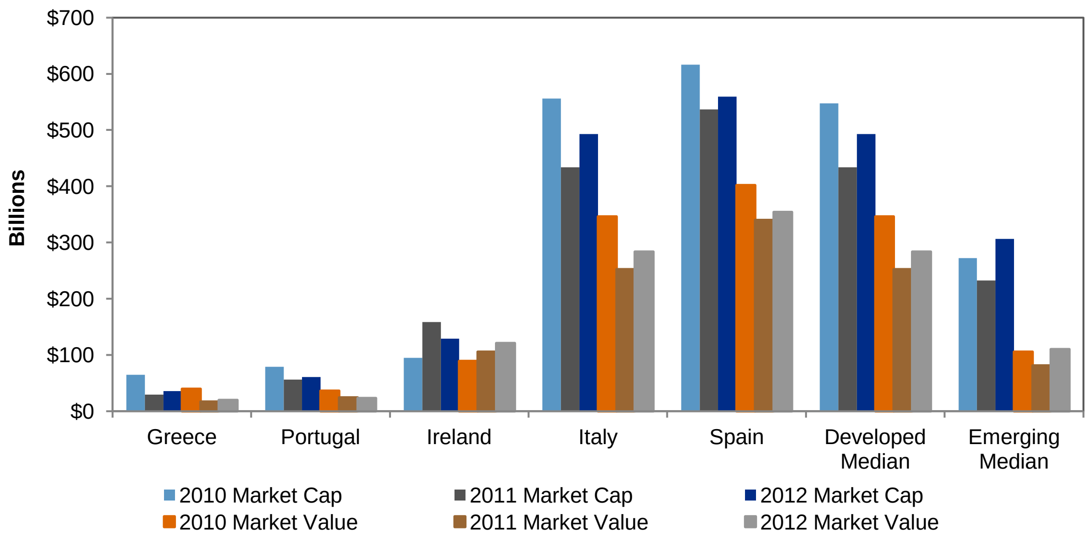
Source: Economist Intelligence Unit

[8] Average standard deviation of Russell developed ex-Greece EIU country risk scores for year-ends 2010-2012.

Total market capitalization

Total market capitalization ("market cap") is an important gauge of a country's economic development. A robust and well-diversified capital market may be indicative of an advanced economy. Russell measures total market cap as part of our annual market reviews, and the measure is widely used by investors to assess the size of the equity opportunity set for a country. Figure 3 shows Greece's market cap compared to other economically distressed countries in the eurozone, as well as the countries' total market value. Total market value is the float-adjusted market cap that is actually held in the Russell Global Index. Market value can be a useful supplement to market cap as a measure of relative size. Additionally, a measure such as [Country ABC market value / Country ABC market cap] – which is reported in the Russell Indexes Country Guidebook – can provide an indication of how open a particular market is to investment. Greater openness to foreign investment is also associated with developed markets. Using market value, we observe a similar result as we found when using market cap.

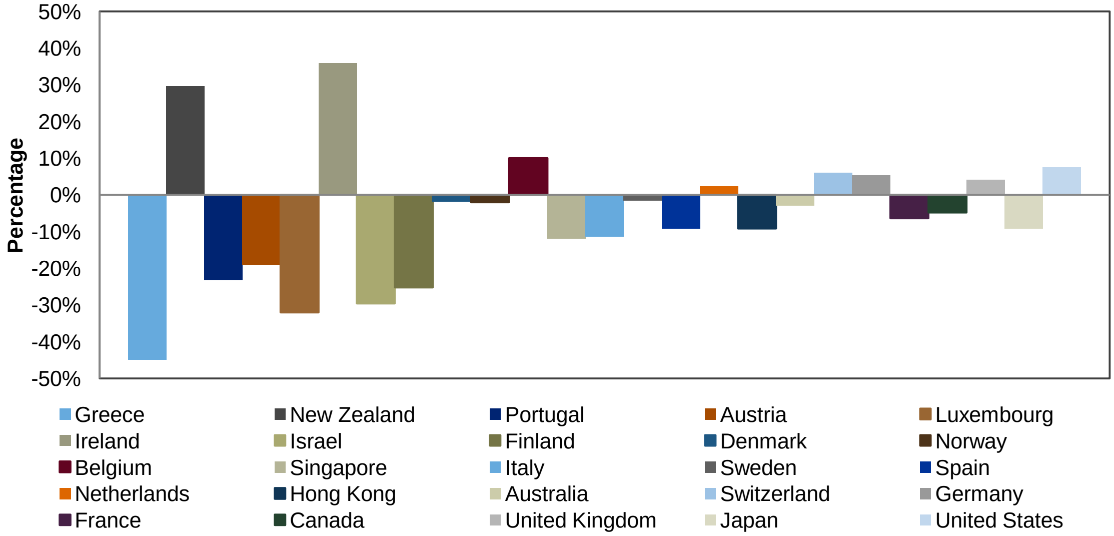
Figure 3 / Comparisons of total market capitalizations and index market values (in USD) of the GIIPS countries, the median country in the Russell Developed Index and the median country in the Russell Emerging Markets Index as of year-ends 2010–2012.



Source: Russell Indexes

In addition to having the smallest market size of all developed-market countries, Greece also experienced the most significant loss in market cap size for the three years 2010–2012. As demonstrated in Figure 4, Greece lost nearly half of its market cap during this time – the sharpest contraction among Russell's developed-market countries over the same period. The decline in market cap to current levels suggests that the Greek market has become more risky than those of its developed-market peers.

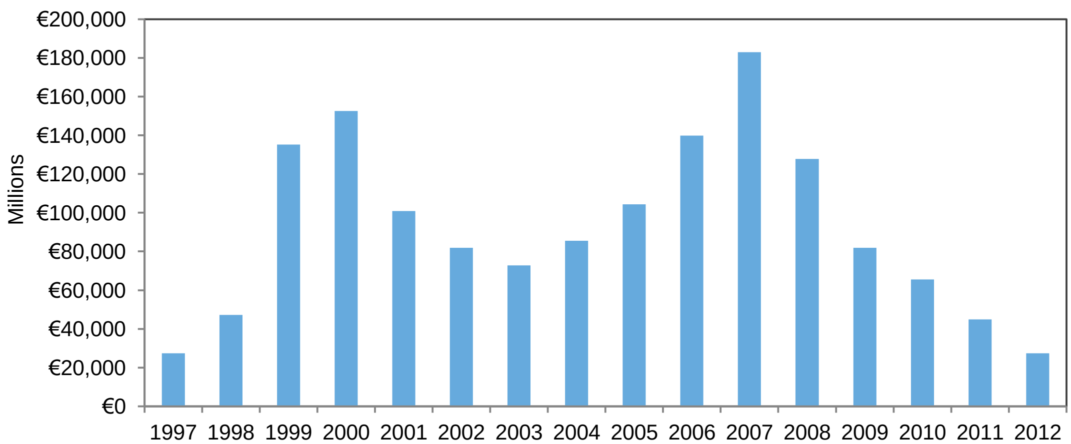
Figure 4 / Percentage change in total market capitalizations of Russell developed-market countries from year-ends 2010–2012.



Source: Russell Indexes

An analysis of data from the Athens Stock Exchange supports Russell's observations about the magnitude of the loss in market size. According to the Athens exchange, which includes some companies that may not be held in the Russell Global Index, Greece has lost nearly 85% of its value since 2007, as shown in Figure 5.

Figure 5 / Total market capitalization (in Euros) of the Athens Stock Exchange as of year-ends 1997–2012.

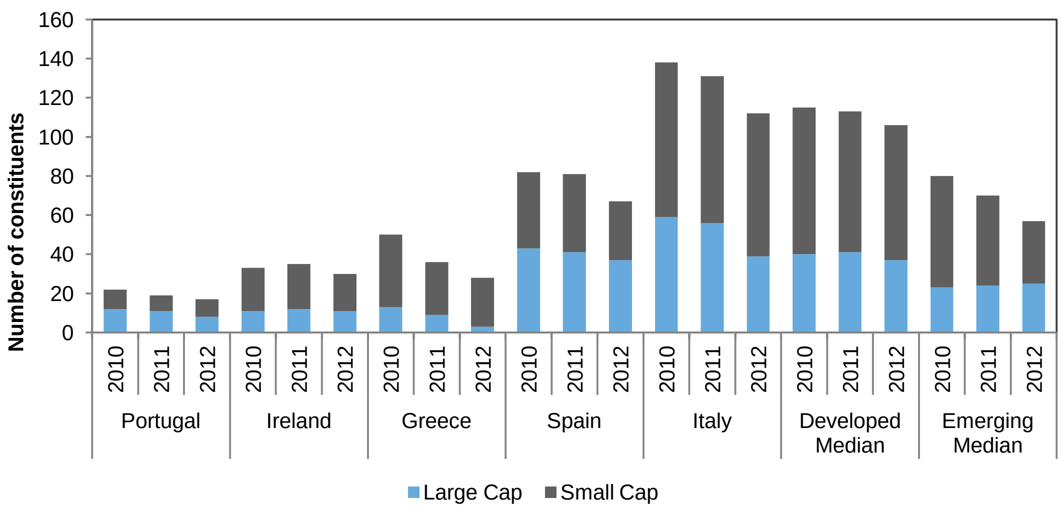


Source: Athens Stock Exchange

The large/small mix

The size of a country's capital market is directly related to the types of companies that are available to investors. Developed markets are generally expected to have greater market depth through a broad mix of companies both large and small. Although Russell does not specifically consider the large company/small company mix of a country's market for the purposes of market risk categorization, we believe such analysis can be useful in highlighting the differences between Greece and other developed-market countries. As shown in Figure 6, Greece has experienced a marked decline in its large company/small company mix. Excluding Coca-Cola Hellenic, Greece has just two modestly sized large cap companies remaining. By contrast, Portugal, while starting from a smaller base of companies overall, has retained its approximately 50:50 mix of large and small companies.

Figure 6 / Comparison of large cap and small cap holdings in the GIIPS, the median country in the Russell Developed Index and the median country in the Russell Emerging Markets Index as of year- ends 2010–2012.



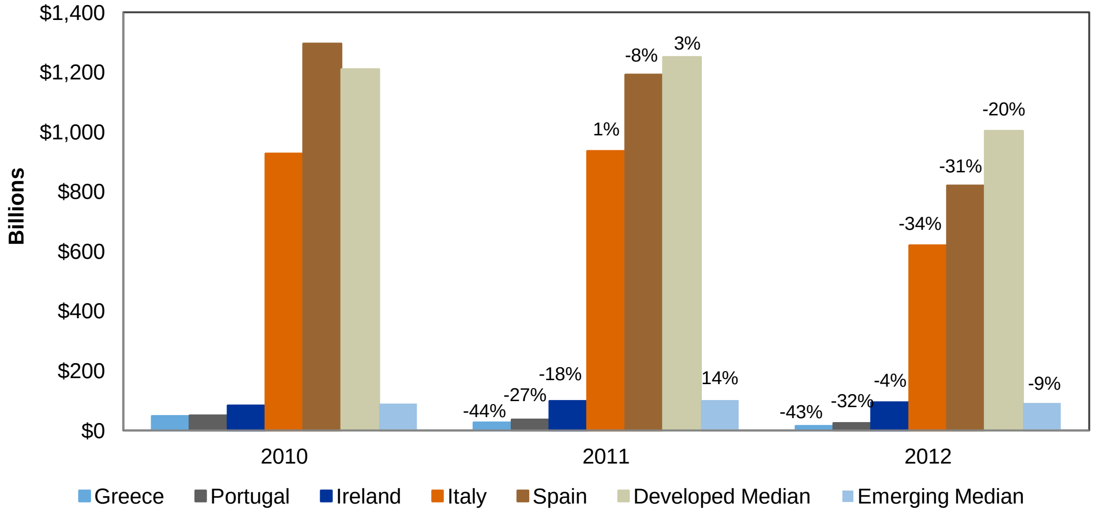
Source: Russell Indexes

Liquidity

Liquidity plays a critical role in global investors' ability to obtain efficient trade execution within a market. Greater liquidity indicates that trading in a market can occur quickly and at relatively low cost – all typical features of a developed-market country. Russell evaluates the 12-month lagging liquidity[9] of each country within the operational risk portion of our market reviews. Figure 7 shows Greece's liquidity compared to the liquidity in the other GIIPS markets and in the median countries in the Russell Developed Index and the Russell Emerging Markets Index. In addition to Greece's liquidity being significantly lower than that of the Russell Developed Index's median country, we can see a decline in 2012 to more than half of the already-low levels of 2010. Greece's current liquidity suggests a higher operational risk profile, more in line with emerging-market countries.

[9] Total daily dollar value traded for the previous 12 months.

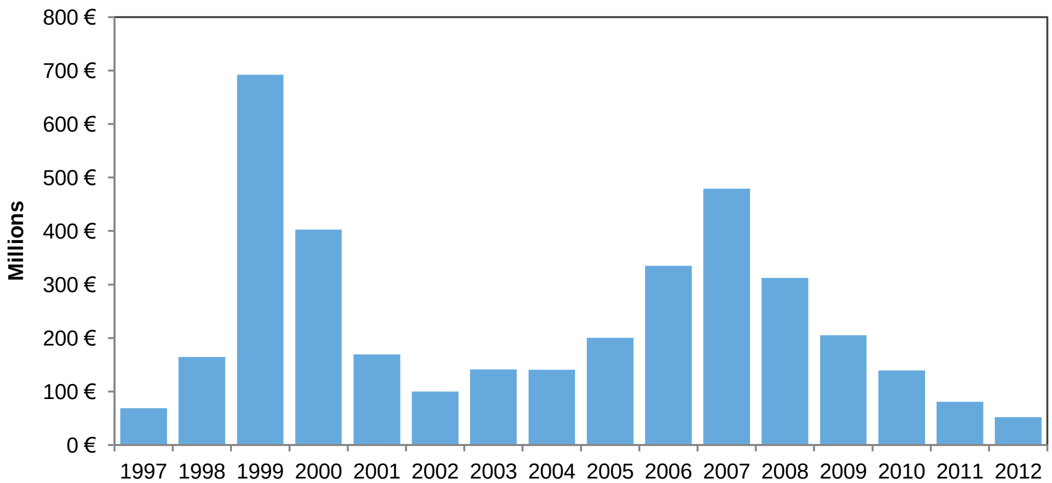
Figure 7 / Comparison of GIIPS, Russell Developed and Russell Emerging 12-month lagging liquidity[10] as of year-ends 2010–2012, including year-over-year percentage change in liquidity.



Source: Russell Indexes

Again utilizing data obtained directly from the Athens Stock Exchange, we find support for Russell's conclusion that Greece has a significantly higher operational risk profile as related to market liquidity. The Athens Stock Exchange data (Figure 8) shows average daily volumes for 2012 as being less than those in 1997 – the earliest year for which this data was available.

Figure 8 / Average daily euro value traded in the Athens Stock Exchange as of year-ends 1997–2012.



Source: Athens Stock Exchange

[10] Total daily dollar value traded for the previous 12 months.

The final piece in our analysis examines the standard deviation of total returns for the Russell Greece Index, Russell Developed Index and Russell Emerging Markets Index. Returns-based analysis is often used as one way to determine the similarities (and differences) between portfolios of stocks. A portfolio's or a stock's standard deviation of returns, also commonly referred to as its volatility, may be used as an indicator of possible risk – with higher volatility being associated with greater risk. As Table 2 displays, the Russell Greece Index has exhibited higher volatility than both the Russell Developed Index and the Russell Emerging Markets Index over the 12-, 36- and 60-month periods evaluated. However, Greece's higher volatility is more closely aligned with that of emerging markets.

Table 2 / Standard deviations of total returns for the Russell Greece Index, Russell Developed Index and Russell Emerging Markets Index over 12-, 36- and 60-month periods ending 12/31/2012.

	Russell Greece Index	Russell Developed Index	Russell Emerging Markets Index
12-month volatility	14.3	3.8	5.7
36-month volatility	13.1	5.0	6.3
60-month volatility	13.0	6.2	8.6

Source: Russell Indexes

Conclusions

Russell's reclassification of Greece as an emerging-market country should not be viewed as the removal of the "bad apple" from the cart. Many developed-market economies have been under significant stress in recent years, and some could follow Greece's path to a riskier market categorization. Conversely, some emerging and even frontier markets may set examples of stability and standardization such that they become developed markets. Russell's market reviews, and the resulting developed, emerging and frontier classifications represent a continuum of country risk that can change over time. As, concluded by our methodology, Greece still has a relevant place on that continuum[11], but among the emerging group of countries.

[11] For more information on circumstances that could result in the removal of Greece, or another country, from the Russell Global Index, please see "Grexit: Response to the potential exit of Greece from the European Monetary Union," available at: http://www.russell.com/indexes/documents/research/grexit-response-to-potential-exit-of-greece.pdf.

About Russell Indexes

Russell's Indexes business began in 1984 to accurately measure U.S. market segments and track investment manager behavior for Russell's investment management and consulting businesses. Today, our series of U.S. and global equity indexes reflect distinct investment universes – including asset class, geographic region, capitalization and style – with no gaps or overlaps. Russell Indexes offers more than three dozen product families and calculates more than 80,000 benchmarks daily covering 98% of the investable market globally, 83 countries and approximately 10,000 securities. Approximately $3.9 trillion in assets are benchmarked to the Russell Indexes as of December 31, 2011.

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