Capital Access Index: Converging and Diverging European Markets

By Glenn Yago

Overview

"When you've once said a thing, that fixes it, and you must take the consequences."

-Red Queen to Alice
Alice in Wonderland

Europe is poised to introduce its new monetary unit, the "euro," in January 1999. On the brink of this financial transition, the Milken Institute looks at 15 European countries (11 "core" economies and four "peripheral" economies). Nine of the 15 are members of Euroland. The Institute judges each country's level of financial openness to entrepreneurial (as opposed to statist) capitalism, and hence each's ability to benefit from the introduction of a European-wide currency.

There's a new specter haunting Europe: After enduring a century of socialism's disappointments, Europe faces the possibility that the European Monetary Union (EMU) will fail to spur an era of entrepreneurial capitalism. The euro may actually become a source of political vexation instead of a solution to Europe's jobless growth, which eventually could induce states to try to mitigate the effects of the Asian-Russian economic crisis through state- and deficit-led means rather than market-led methods that encourage new demand and growth. The EMU creates conflict between the emerging transnational, statist monetary and regulatory organizations and the existing national ones. Despite de facto easing of monetary policy and relaxing of fiscal austerity, Europe's predominantly Social Democratic governments will find it hard to resist state-led demand-side remedies if the global credit crisis worsens just as the euro is being introduced. Reformed capital markets could be an important channel through which these frictions can be mediated as investors and entrepreneurs seek to find each other and create a united Europe.

Converging and Diverging Europe

Economic growth of the 11 countries planning to adopt the euro in January ("Euroland") is expected to slow to 2.6 percent (down from a previous forecast of 3.2 percent) in 1999. But if the global financial crisis worsens, Euroland may be tempted to stimulate demand. Nine of the 11 countries are governed by center-left parties or coalitions (Spain and Ireland are the exceptions) and Euroland's unemployment is currently running at 11.1 percent. Euroland's governments could try to offset monetary austerity with fiscal laxity. The temptation to play bureaucratic games with deficit limits of 3 percent of gross domestic product (GDP) and to pursue fiscal flexibility in order to deal with rising social demands (caused by inadequate growth shared unequally in the region) could rip the monetary union apart.
On the face of it, economic conditions in the 11 countries have been steadily converging (see Figures 1 and 2). Inflation, budget deficits, and interest rates all have fallen to all-time low levels. But big differences exist in structural unemployment and cyclical activity among the 11.

**Figure 1**

**Inflation Rates Converge Since 1980**

Inflation Rates in Western Europe

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**Figure 2**

**Long-Term Rates Falling**

Long-Term Interest Rates in Western Europe
Credit differentiation, rather than currency differentiation, will emerge as the source of returns. Without currency borders, productive capital will flow more freely and European states will be forced by the policies of the European Central Bank (ECB) to compete in areas of fiscal and productivity-enhancing policies. Briefly put, restructuring, deregulation, and increasing investment opportunities remain for most Eurooptimists the likely outcomes of the euro's launch. These would be spurred by lower interest rates, price convergence, tax competition, and industrial consolidation, all of which could combine to catalyze competitive business and public policies, overturning a century of restrictive regulatory and corporate governance.

In reality, the euro's launch in January could hardly be more inauspicious as the possibility of a global credit crunch looms. The question remaining is why continuing European monetary, economic, and political integration has thus far failed to resolve the dual problems of massive unemployment and slow aggregate growth that is shared unequally between the European core and periphery, as well as within individual countries.

The creation of a stable euro depended on a low inflation rate and low budget deficits. Both already have converged at low levels. This convergence, however, masks significant variation in structural unemployment and cyclical levels of business activity. The primary function of the euro and the ECB will be to eliminate competition among Europe's individual central banks — competition that has led to anti-inflationary policies. But as Heidi and Alvin Toffler have correctly observed, "While the world's best and most competitive firms are busy flattening their bureaucratic hierarchies, Europe is taking a bunch of national bureaucracies and stacking yet another on top of them." By adding additional oversight and regulation instead of replacing them, the ECB has a challenging task ahead.

Open market operations, reserve requirements, foreign exchange intervention, regulation of futures markets, and bond repurchase agreements are all ways in which central banks can influence monetary policy. Transforming multiple currencies into one requires an intervention mechanism that will fix exchange rates and is the sine qua non of the euro. Whether it will trigger change or a crisis of the structural labor and fiscal policies that have limited growth in Europe until now remains to be seen. Macroeconomic shocks are likely, with country-specific fiscal policies remaining the only tool with which to react.

Despite the Europhoria, sclerotic productivity and employment problems persist, as evidenced by lower job creation and lower productivity relative to the United States. Convergence in the material standard of living (as measured by GDP per capita) between the United States and Europe continued for most of the post-World War II period, began to slow in the 1970s and stopped during the 1990s. Job creation in Europe stagnated over the past two decades. Until recently, most observers focused upon supply-side problems in the labor markets (excessive restrictions on labor, wage floors, and social insurance programs) as the causes of limited growth. This explanation focused on upward wage-stickiness due to European minimum wage laws, powerful unions, and welfare systems.

More recently, rigidities outside of the labor market have been found to be the real constraints to growth. As Alan B. Krueger and Joergen-Steffen Pischke noted in their "Observations and Conjectures on the U.S. Employment Miracle" (National Bureau of Economic Research Working Paper 6146, June 4, 1997), Europe's inability to increase employment in line with population growth derives more from restrictions
on start-up companies, capital market imperfections, product market regulations, restrictive zoning rules, and occupational, business, and financial licensing than from supply-side factors. These demand rigidities — i.e., the absence of firm formation that creates the demand for labor — impede job creation. They pose the greatest threat to a stable European monetary and political integration.

**Capital Markets**

In this context, the growth and integration of European capital markets in our survey are particularly important. Governments constrained by Maastricht budgetary deficit limits (and good economic sense) cannot expand their economies, but capital markets that spur entrepreneurship can. It is important to recall the role of capital markets in ensuring the initial vision of the EMU. European integration was from the beginning a political project, not an economic one. After World War II, the founding fathers (Monnet, Schuman, Spaak, et al.) of the European Union (EU) sought to prevent future wars. After 1989, the need to integrate Eastern Europe and to overcome distrust about the role of a strong German economy further drove political integration.

Monetary union has served to affect political integration on a practical basis by means of monetary tools, thus deflecting the considerable resistance that a more direct approach to political integration would raise. The EMU's ability to trigger political change instead of economic crises will come from the ability of capital markets to fuel an amount of growth sufficient to even out European development. The emerging unevenness is taking place both between core and periphery states and within dominant states by means of structural unemployment. The core of Europe, most importantly Germany, traditionally has relied upon export growth rather than on dynamic internal market growth with labor flexibility. As the new currency is launched, the ability to fuel internal aggregate growth to counteract the effects of the Asian-Russian crisis will be key.

If European regulators, the ECB, and national governments empower rather than disable markets through their fiscal, budgetary, and regulatory policies (and that is a pretty big "if"), then the euro could spark capital market expansion. As our rankings indicate, both the levels of capital (as indicated by the Swiss ranking) and models of market performance (as indicated by the United Kingdom's ranking) provide the resources, experience, and institutional framework for financing Europe's future. Switzerland ranks first in our Capital Access Index purely for historical reasons. The Swiss function in the European economy (as a fortress during times of political instability and as a place to hide money) is unique and reflective of Europe's past rather than its future. The United Kingdom's high ranking on areas of capital access is more reflective of things to come.

The single currency will give birth to a large single capital market. The growth of funded pension schemes, employee share options, and share buybacks will all accelerate a greater accountability and performance of European corporations. A common currency emancipates capital from its home market. Today only the United Kingdom has more than 15 percent of its financial assets invested abroad, while figures for France, Germany, and Italy each hover around 5 percent. Regulatory limits prevent institutional investors from exposing their portfolios to foreign currency risk. These limits will be removed with the euro's launch on January 1.
Equities comprise only about 20 percent of private sector financial assets in Germany, in France, and in Italy; again, the United Kingdom is the exception, where equities comprise more than 50 percent of those assets. The deficit stability pact of the EMU will create additional pressures to limit budgetary exposures to state pension funds and to privatize them. Privatizing pensions in Europe will increase the appetite for equity and corporate bond issuance, as higher yields will be required for a Europe facing an aging population.

Heretofore, government borrowing had crowded out corporate borrowing. Government bonds dominated most European portfolios. As the supply of government bonds shrinks, the number of other asset classes, tied to capital markets, will increase. Industrial consolidation and restructuring necessitated by the EMU also will be a source of expansion in European capital markets. Companies and industries pioneering to build the New Europe will demand capital at lower cost, thus spurring further innovation in European capital markets.

Whether or not this new power of capital markets will temper traditional corporate governance policies that protect bad management remains to be seen. In France and Germany, corporate governance still relies upon the insularity of incumbent management through shareholder structures and bank participation that limit change. The pressures unleashed by the EMU upon capital market competition could mitigate these traditional barriers to industrial change, increasing the availability and lowering the cost of capital to finance change. Broader access to capital and the ability to form trans-European businesses portend well for future growth.

**Capital Access Index: Europe**

Which capital markets are best situated to take advantage of this potential?

Our Capital Access Index identifies the potential winners of European monetary integration and identifies markets requiring restructured financial regulations and corporate governance. This European capital access index is composed of 49 variables, each equally weighted and divided into three categories: quantitative measures, risk measures, and qualitative measures.

Quantitative measures consist of the proportions of government expenditure, government debt, and private-sector debt to GDP; the ratios of equity market capitalization and corporate bonds to GDP; comparative tax rates; market-adjusted debt; and financial concentration ratios. Lower tax rates on gains, higher write-offs on losses, and private equity investment promote new business creation and a higher risk-reward ratio for investors. On the other hand, the broad equity and corporate markets provide liquidity for venture capital investments and enable companies to raise further funds for financing. Our results show that the highest-ranked countries have the lowest degree of financial and industrial concentration, suggesting that alternative funding can be provided for business firms and that businesses of the future, not just those of the past, have opportunities.

Risk factors in our rankings include such ratios as stock, currency, and interest volatility; interest-rate spreads over U.S. Treasuries; equity market liquidity; and the proportion of initial public offerings (IPOs) to total market capitalization. Countries with low financial volatility and lower interest rates are positioned to promote entrepreneurial growth. Higher rates of IPO issuance and liquidity suggest
less risk aversion and a greater capacity to fund the firms of the future.

Along qualitative dimensions, we have gathered together regulatory factors that delineate the permissible areas of bank lending and investing activities and the factors that restrict or enhance foreign direct investment flows. Open investment laws, shareholder and creditor rights, low tax rates, lower corruption, less government intervention, and a high competitiveness score create the potential to attract large-scale capital flows that could overcome structural problems.

Switzerland’s high ranking reflects its traditional strengths in European financial services. The sheer magnitude of capital accumulated in Swiss financial institutions and markets heavily weights its high ranking, along with the country’s political stability and market liquidity. As for its investment climate for entrepreneurial growth, however, Switzerland lagged.

On the other hand, the United Kingdom’s leading rank in second position reflects more concretely what this Index is trying to capture. By retooling its social welfare state, lowering marginal tax rates, and increasing labor market flexibility, the United Kingdom has the first-mover advantage in the emerging post-euro capital market (as even Germany has acknowledged with its recent merger agreement on the derivatives market). The United Kingdom has led the way in spurring entrepreneurial and job growth. With a current low unemployment rate of 5.5 percent (as shown in Figure 3), the country scores highest in the indicators of attracting both direct and portfolio investment from abroad. Its rating in market-adjusted debt suggests a more evolved corporate bond market, which in turn fuels higher levels of equity capitalization.

Figure 3

United Kingdom Teaches a Lesson
Unemployment: U.K., France, Germany, Italy

The Netherlands received a relatively high overall rating because of its high rankings in foreign investment protection and its low interest-rate volatility. Finland ranks
fourth in part because of its rate of inflation, currently the lowest among the EU countries, and its low corporate income tax. Austria's fifth-place standing reflects its low currency volatility and high rate of IPOs. The country's top-to-bottom overhaul of its tax system in 1994 (which eliminated taxes levied on businesses' total net assets and on the sum of their capital and earnings) has encouraged investment and capital access, despite a concentrated banking sector. Norway's high ranking relates to its low ratio of government debt to GDP (the lowest in Europe), its low level of banking concentration, and its impressively low corporate income tax rates, all of which promote more capital access.

Most problematic for the realization of the euro's growth potential is the relatively low overall rankings both of key core countries (e.g., Germany, Italy, and France) and key peripheral countries (Greece and Portugal). The core countries must provide the stability and growth that the euro needs for success. Peripheral countries face destabilizing domestic challenges that will threaten the euro. In both cases, high levels of financial and industrial concentration coupled with low rates of financial innovation and market expansion create a poor environment for capital markets that could otherwise stimulate future demand.

Financial Market Innovation

The question of initiating change in its capital markets lies at the heart of Europe's financial future. The following summarizes Europe's capital markets and the potential for innovation.

Equity Markets

European markets have enjoyed a successful bull run since the onset of the Asian crisis. But the Russian devaluation and potential default combined with persistent problems in Asia and fears of a global credit crunch are storm clouds that could rain on Europe's parade come January. The contraction and liquidation of bank balance sheets in Europe's largest banks to sustain compliance with Basle's capital adequacy requirements could precipitate a recessionary credit crunch.

Figure 4 presents graphically the stock performance indices of five of Europe's core countries. As both Figure 4 and Table 1 show, the stock indices performed well overall. The German DAX increased in value by more than 50 percent in the 12 months following the onset of the Asian crisis. Despite Germany's lackluster macroeconomic performance, the German equity market has exhibited positive signs. Investment accelerated sharply earlier in the year, reflecting strong profit growth, the low cost of capital, and a turnaround in the labor market. Slowing global demand and weakening of the deutsche mark are obstacles to Germany's expansion. The German market boomed on news of corporate restructuring and stronger export growth due to a weaker deutsche mark; however, banks have been hurt by their exposure to Asia and Russia.
In France, relatively low exposure to the Asian crisis and the bias of the CAC 40 Index to the consumer index have led to a stable market. In fact, France has led Europe in positive economic indicators since the onset of the crisis. With consumer spending remaining high, strong income growth, and rising confidence, France has seen the most sustained upward earnings revisions of all European markets. Italy’s index rose 38 percent since last October, but the market currently appears shakier as concerns over a capital gains tax increase emerge and fears surrounding the Asian crisis continue, thus contributing to the apparent return of political volatility.

Restructuring has spurred Switzerland’s market, but its banks’ exposure to the Asian and Russian crises will limit growth. The United Kingdom is still the preferred destination for portfolio capital inflows and the home of the strongest overall economy in Europe. Monetary tightening, however, may lead to possible earnings reductions. The linkup between the London and Frankfurt stock exchanges, due to begin in January 1999, will be the biggest step toward an integrated regional capital market.

Table 1
Banking

Europe is witnessing an increase in concentration in every segment of the banking industry. The EU has made cross-border competition easier, as banks no longer need to set up full subsidiaries in each EU country in order to operate. However, each bank's home regulator supervises solvency, liquidity, and risk. This issue is particularly important when examining the impact of Asian-Russian crisis exposure on bank balance sheets and capital adequacy requirements.

**Table 2**

*Overexposure: European banks’ net exposure as a percentage of equity in Southeast Asia and Russia*

<table>
<thead>
<tr>
<th>Banks</th>
<th>Southeast Asia</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Suisse Group</td>
<td>21.11%</td>
<td>11.91%</td>
</tr>
<tr>
<td>Deutsche Bank</td>
<td>17.67%</td>
<td>2.41%</td>
</tr>
<tr>
<td>Dresdner Bank</td>
<td>17.76%</td>
<td>2.25%</td>
</tr>
<tr>
<td>Commerzbank</td>
<td>43.71%</td>
<td>1.65%</td>
</tr>
<tr>
<td>Bankue Nationale de Paris</td>
<td>31.97%</td>
<td>1.32%</td>
</tr>
<tr>
<td>Societe Generale</td>
<td>66.1%</td>
<td>0.63%</td>
</tr>
<tr>
<td>ABN Amro</td>
<td>13.22%</td>
<td>0.31%</td>
</tr>
<tr>
<td>UBS</td>
<td>8.02%</td>
<td>0.16%</td>
</tr>
<tr>
<td>HSBC</td>
<td>111.1%</td>
<td>n/a</td>
</tr>
<tr>
<td>Credit Lyonnais</td>
<td>93.76%</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Source: Morgan Stanley Dean Witter, 1998

**Table 3**

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Standing since October 1997 Asian Crisis

<table>
<thead>
<tr>
<th>Countries</th>
<th>Low at October crash</th>
<th>High since crash, July 1998</th>
<th>As of October 20, 1998</th>
<th>% Change between high (July 1998) and October crash</th>
<th>% Change since low at October crash to date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy (MB)</td>
<td>21,217</td>
<td>38,860</td>
<td>26,845</td>
<td>83%</td>
<td>26%</td>
</tr>
<tr>
<td>Switzerland (SMI)</td>
<td>5,127</td>
<td>8,421</td>
<td>5,738</td>
<td>64%</td>
<td>12%</td>
</tr>
<tr>
<td>Germany (DAX)</td>
<td>3,587</td>
<td>6,171</td>
<td>4,225</td>
<td>73%</td>
<td>18%</td>
</tr>
<tr>
<td>France (CAC40)</td>
<td>2,651</td>
<td>4,388</td>
<td>3,263</td>
<td>66%</td>
<td>23%</td>
</tr>
<tr>
<td>U.K. (FTSE100)</td>
<td>4,649</td>
<td>6,179</td>
<td>5,038</td>
<td>33%</td>
<td>8%</td>
</tr>
</tbody>
</table>
Asian Business Size
Compared to Banking Income

<table>
<thead>
<tr>
<th>Loan exposure to Asia</th>
<th>% from Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total French banks</td>
<td>4.10%</td>
</tr>
<tr>
<td>Total U.K. banks</td>
<td>21%</td>
</tr>
<tr>
<td>Total German banks</td>
<td>1.85%</td>
</tr>
<tr>
<td>Total Swiss banks</td>
<td>3.40%</td>
</tr>
<tr>
<td>Total Dutch banks</td>
<td>4.60%</td>
</tr>
</tbody>
</table>

Source: Paribas estimates, 1998

Table 4

Distribution of International Credit to Russia by Country, 1997

<table>
<thead>
<tr>
<th>Country</th>
<th>% Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>0.6</td>
</tr>
<tr>
<td>France</td>
<td>9.7</td>
</tr>
<tr>
<td>Germany</td>
<td>42.2</td>
</tr>
<tr>
<td>Italy</td>
<td>5.9</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3.1</td>
</tr>
<tr>
<td>Spain</td>
<td>.8</td>
</tr>
<tr>
<td>U.K.</td>
<td>1.3</td>
</tr>
<tr>
<td>Finland</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Source: Morgan Stanley Dean Witter, 1998

Tables 2-4 indicate the overall exposure of some major European banks to the Asian-Russian crisis. In light of recent regulatory announcements and the emerging threat of a global credit crunch, only one interpretation of this data is possible. Due to the relatively high exposure of some of the very largest banks and their incumbent concentration, we are now witnessing large-scale bank balance sheet shrinkage. The associated liquidation of assets and credit market tightening reflects the reductions in bank assets, which in turn are responding to a precipitous drop in share prices on the concatenation of bad news. As credit channels tighten, the corporate bond market has found itself unable to pick up the slack through increased credit disintermediation.

The Bond Market
The credit crunch would be less of a problem if the corporate bond market were to take up the slack, but it has not. On August 31, 1998, the interest spread between U.S. high-yield bonds and U.S. Treasuries hit a six-year high of 500 basis points, as against the all-time low of 260 basis points in August 1997. This margin now is more than 676 basis points.

As stated, the volatility and size of the credit spreads have basically shut down new issues in the European corporate bond market. But, the widening spreads have occurred without fundamental credit deterioration. The benefits of the euro for market expansion remain. The growing scale economies of Euroland and the growing pools of institutionally managed capital as well as price transparency and the banking sector's restructuring with reduction in lending will promote demand in the European capital markets. If European businesses have an alternative to their heavy dependence on short-term debt, they will take it; the emerging European capital markets spurred by the euro's launch could help them. To date, less than 10 percent of Europe's 1,700 companies with more than $1 billion in annual revenues have accessed the public debt markets. Small and medium-sized enterprises have even less access to capital.

Investor redemption in high-yield mutual funds was -2.3 percent of total assets in September 1998, the largest outflow since the U.S. Federal Reserve's monetary tightening in March 1994. Latin American firms led the entry into the U.S. high-yield market in 1995, and European firms began to develop this market in 1997. The Asian-Russian crisis has temporarily aborted the emergence of a European high-yield market. Total high-yield issues in European currencies were $1.7 billion in 1997 and had spiked to $5 billion in Europe by 31 separate borrowers in the first six months of 1998. That activity has ground to a halt. Few companies can get the funds they need to grow. Regardless of their Asian or Russian exposure, all companies and markets are being tainted with the same fears. Figure 5 shows how far the European high-yield market has contracted relative to the overall market over the 60 days following the Russian devaluation.

Figure 5
Asset-backed securities (ABS) issuance increased sharply from $1.7 billion in 1995 to $14.5 billion in 1996 (see Figure 6). As of late August 1998, ABS issuance stood at $16 billion. Recent changes in several countries' rules due to the advent of the euro in January are expected to provide a greater impetus to ABS issuance.

Belgium, Germany, and the Netherlands all have enacted changes to allow securitization to be used in private transactions. Until recently, only Spain allowed securitization, and then only in the mortgage market. The securitization of credit card debt is also just beginning to be examined. The average number of credit cards per person is 1.5 in the United States, versus 0.1 in France and Germany and 0.5 in the United Kingdom. The euro could correct the bottleneck in securitization and credit expansion — namely that, relative to the size of the market, the volume of each deal is bigger than the existing investor base.

**Figure 6**
The Mortgage Market

The adoption of the euro probably will introduce tighter competition in the mortgage market due to the removal of currency and interest-rate risk with cross-border activity. Continental mortgage markets will remain less accessible and more tightly regulated than those of the United Kingdom. Owner occupation is only 40 percent in Germany. Mortgage bonds will provide only 20 percent of Europe’s mortgage credit funding, since publicly guaranteed mortgages dominate the market. Tax obstacles (borrowers cannot deduct mortgage interest or insurance premiums if paid to a foreign lender) and obstacles to the free provision of banking services persist. Differences across Europe remain in the options for prepayment, minimum size of down payments, and laws to encourage home ownership. European mortgages are almost entirely at a fixed rate except for the United Kingdom, where 81 percent are variable, compared with 15 percent in France and a total reliance on fixed rates in Germany.

Venture Capital

European start-up companies continue to suffer from a shortage of funding. Venture capital funds invested a total of $22 billion in Europe last year, half the amount invested in the U.S. Nasdaq’s 5,400 companies. Nasdaq’s European equivalents, Euro-NM (European New Markets) and Easdaq in London, list a combined total of only 170 companies. Unless regulatory, licensing, and other restrictive legal measures are eased to enable riskier — and hence, more rewarding — venture investments to flourish, the introduction of the euro is unlikely to affect this sector.

The Buyout Market
As Figure 7 shows, during 1996-97, continental buyouts increased a staggering 230 percent. Last year, continental market buyouts (11.9 billion pounds) exceeded those of the United Kingdom (10.4 billion pounds) for the first time. Figure 7 compares the contributions of 14 countries to this market. Corporate divestments are the most important source of buyouts, accounting for 43 percent of all deals, while buyouts of privately owned companies have increased to 35 percent of the overall market. The strong activity reflects the unprecedented liquidity of Europe's private equity funds. A good example of the fragility of this market is the recent collapse of one of Europe's largest proposed buyouts, KKR's cancelled acquisition of Hoechst's Herberts unit for $1.7 billion. Price renegotiations after the changed outlook for global paint markets soured the deal, which DuPont may now pick up.

**Figure 7**

**Value of European Buyout Markets, 1995-1997**

Source: CMBOR/Initiative Europe

**Conclusion**

Financial markets, like all markets, are social and political constructions reflecting the interaction of their firms and nations. The EMU acts as a federation to centralize bargaining while decentralizing regulation and enforcement. The EMU has the power to prevent economic gridlock if it creates conditions that foster a smoothly running integrated economy. Accordingly, market practitioners can build upon their experience in creating the euro to meet the challenges of the emerging global crisis.

Glenn Yago is Director of Capital Studies at the Milken Institute. Many thanks to Lalita Ramesh, Research Associate, and Mindy Dao, Research Analyst, for their research and editorial assistance on the Index. Thanks also to David Mozina and others at Merrill Lynch, who were most helpful with information on bond and equity markets.
Introduction to the Milken Institute Capital Access Index

This ranking differs substantially from other very responsible efforts by the Simon Fraser Institute,1 Wall Street Journal/Heritage Institute,2 and World Economic Forum3 by focusing on capital access, the most salient dimension of a country’s economic environment that allows it to realize its growth potential.

The Milken Institute Capital Access Index focuses on market factors alone and not on political ideologies. We examine empirical market factors regulating the entry and exit, origin and destination of capital flows. Thus, our rankings focus less upon macroeconomic policies and issues than do other economic rankings, and more upon recent revolutions in corporate finance theory and practice. The ability to tap capital markets and structure corporate finances to facilitate business growth strategies is key. Obviously, the macroeconomic environment can constrain or enhance that capacity, but this index focuses upon finance variables that link microeconomic behavior to macroeconomic performance.

We measure capital access according to the depth, breadth, and liquidity of markets. Risk measures include the volatility of interest rates, currencies, and equity prices. These risk factors have the greatest impact upon foreign portfolio flows, domestic capital formation, firm formation, and aggregate growth. Even though we do not incorporate political factors per se, some policy information can be gleaned by examining our government-control factors, which are indicative of the role of the state in determining patterns of economic performance.

This version of the Milken Institute Capital Access Index is an equally weighted index of 49 variables, divided into three categories: quantitative, risk, and qualitative.

Notes:
<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
<th>Score</th>
<th>Quantitative Measures</th>
<th>Risk Measures</th>
<th>Qualitative Measures</th>
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<td>100.00</td>
<td>99.01</td>
<td>100.00</td>
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<td>98.67</td>
<td>98.06</td>
<td>95.42</td>
<td>99.96</td>
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<td>Netherlands</td>
<td>3</td>
<td>97.95</td>
<td>96.27</td>
<td>99.75</td>
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<td>96.41</td>
<td>97.27</td>
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<td>97.38</td>
<td>97.10</td>
<td>100.00</td>
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Countries in boldface type are members of Euroland. The two members not included are Ireland and Luxembourg.

The Milken Institute Capital Access Index is an equally weighted index of 49 variables, divided into three categories: quantitative, risk, and qualitative.

**Quantitative Measures:**

1. Government spending/GDP
2. Government debt/GDP
3. M2/Reserves
4. Internal/External funds
5. Velocity of M2
6. Corporate income tax rates
7. Capital gains tax
8. Value-added taxation
9. Government bonds/GDP
10. Market-adjusted debt ratio
11. Equity market capitalization/GDP
12. Banking sector assets/GDP
13. Bank credit/(Bank credit + Central bank domestic assets)
14. Claims on nonfinancial private sector/Total domestic credit
15. Claims on nonfinancial private sector/GDP
16. Household savings rate (% disposable household income)
17. Corporate bonds/GDP
18. Top 5 banks’ assets/GDP
19. Top 10 firms’ market capitalization/Total market capitalization

**Risk Measures:**

20. Stock market volatility
21. Short-term interest rates
22. Currency volatility
23. Interest-rate volatility
24. Interest-rate spread between U.S. Treasury bonds (10-year) and domestic public debt
25. Equity market liquidity
26. IPOs in a given year/Total market capitalization

**Qualitative Measures:**

27. Moody’s bank ratings
28. Securities law
29. Access to foreign capital markets
30. Foreigners’ access to other countries’ capital markets
31. State interference in business
32. Interest rates
33. Entry to banking industry
34. Foreign investment protection
35. Foreign investors’ freedom to acquire corporate control
36. State interference in business
37. Role of state-controlled enterprises
38. Government regulations
39. Government policies
40. Enforcement of regulations
41. Tax system
42. Tax evasion
43. Banks’ financial condition
44. Share of domestic credit to private sector
45. Investment climate
46. Legal system
47. Shareholder rights
48. Creditor rights
49. Restrictions on banking
Definition of Variables

QUANTITATIVE MEASURES

(1) Government spending/GDP. Ratio of government expenditures (as reported in the Government Finance section of the IMF's *International Financial Statistics*) to GDP.

(2) Government debt/GDP. Direct and assumed debt of the central government, excluding loans guaranteed by the government (as reported in the Government Finance section of the IMF's *International Financial Statistics*).

(3) M2/Reserves. Money (currency outside banks and demand deposits other than those of the central government) plus quasi-money (comprising time, savings, and foreign currency deposits of resident sectors other than the central government) to total reserves minus gold (as defined in the IMF's *International Financial Statistics*).

(4) Internal/external funds. The ratio of gross domestic savings (as reported in the World Bank's *World Development Indicators*, 1998) to financial account statistics (as reported in the IMF's *International Financial Statistics*).

(5) Velocity of M2. Ratio of GDP to money plus quasi-money (as defined in the IMF's *International Financial Statistics*).


(9) Government bonds/GDP. Ratio of government bonds outstanding (from Merrill Lynch's *Size and Structure of the World Bond Market*, September 1998) to GDP.


(11) Equity market capitalization/GDP. Ratio of the total value of all securities traded on the exchanges for each country to GDP (as reported by BIS and Bloomberg).

(12) Banking sector assets/GDP. From the World Economic Forum's

(13) Bank credit/(bank credit + central bank domestic assets). Deposit money bank assets and central bank domestic assets (as reported in the IMF's International Financial Statistics, September 1998).


(15) Claims on nonfinancial private sector/GDP. As reported in the IMF's International Financial Statistics, 1998, except for Austria, for which 1995 data were used.

(16) Household savings rate. Percentage of disposable household income (as reported in the OECD Economic Outlook, June 1998).

(17) Corporate bonds/GDP. Ratio of corporate bonds outstanding (as reported in Merrill Lynch's Size and Structure of the World Bond Market, September 1998) to GDP.

(18) Top 5 banks' assets/GDP. Top 5 banks' assets based on data from The Banker, 1998; GDP as reported in the IMF's International Financial Statistics, September 1998.


RISK MEASURES

(20) Stock market volatility. Annualized standard deviation of monthly changes in market capitalization since 1995. Based on most recent available monthly data from Datastream.

(21) Short-term interest rates. Either money market or official rates, based on data from Bloomberg.

(22) Currency volatility. Annualized standard deviation in weekly changes in the exchange rate of the local currency to the U.S. dollar since June 1995. Based on data from Datastream.

(23) Interest-rate volatility. Annualized standard deviation of monthly changes in an interest rate since June 1996. Based on data from Datastream.

(24) Interest-rate spread. The difference between the interest rate on a 10-year government bond for the country in question and a U.S. Treasury bond of matching maturity. Based on data from Bloomberg.

(26) **IPOs/total market capitalization.** For any given year, from Merrill Lynch's *European Restructuring Analysis*, February 11, 1998.

**QUALITATIVE MEASURES**

(27) **Moody's bank ratings.** Bank strength rating, as reported by Bloomberg.

(28) **Securities law.** The securities activities include underwriting, dealing and brokering, and all aspects of the mutual funds business. Assigned 1 if a full range of securities activities can be conducted directly in the bank; 0 if all or some must be conducted in subsidiaries.

(29) **Access to foreign capital markets.** Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "Citizens of your country are free to invest in stocks and bonds and open bank accounts in other countries" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(30) **Foreigners' access to other countries' capital markets.** Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "Foreign citizens are free to invest in stocks and bonds and open bank accounts in other countries" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(31) **State interference in business.** Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "State interference in private business is minimal" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(32) **Interest rates.** Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "The gap between interest rates on bank loans and interest rates received for deposits is smaller than international norms" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(33) **Entry to banking industry.** Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "Entry of new banks into the domestic banking industry is easy and subject to reasonable regulations" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(34) **Foreign investment protection.** Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "Investment protection schemes are readily available for most foreign investors" (as reported in the World Economic Forum's *Global...
(35) **Foreign investors' freedom to acquire corporate control**. Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "Foreign investors are free to acquire control in a domestic company" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(36) **State interference in business**. Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "State interference in private business is minimal" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(37) **Role of state-controlled enterprises**. Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "State-owned or state-controlled enterprises do not have a dominant role in your economy" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(38) **Government regulations**. Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "Government regulations do not impose a heavy burden on business competitiveness" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(39) **Government policies**. Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "Government economic policies are impartial and transparent" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(40) **Enforcement of regulations**. Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "Government regulations are precise and fully enforced" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(41) **Tax system**. Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "The tax system in your country enhances business competitiveness" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(42) **Tax evasion**. Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "Tax evasion is minimal in your country" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).

(43) **Banks' financial condition**. Scores ranged from 1 to 7, with 1 indicating strong disagreement, and 7 indicating strong agreement, with the statement, "Banks in your country are generally healthy with sound balance sheets" (as reported in the World Economic Forum's *Global Competitiveness Report*, 1997).
(44) **Share of domestic credit to private sector.** As reported in the World Economic Forum's *Global Competitiveness Report*, 1997.

(45) **Investment climate.** Scores ranged from 1 to 10, with a higher score reflecting a pro-business environment; contract rights and property rights are enforced and government interference in business is restrained (as reported in the PRC's International Country Risk Guide, 1997).

(46) **Legal system.** Scores ranged from 1 to 10, with a higher score reflecting the fairness and accessibility of the legal system and better legal protection (as reported in the PRC's International Country Risk Guide, 1997).

(47) **Shareholder rights.** Scores ranged from 1 to 10, with higher scores reflecting shareholder rights of participation and legal recourse relative to directors, protected by statute (Rafael La Porta, et al., "Law and Finance," NBER Working Paper 5661, 1996).

(48) **Creditor rights.** Scores ranged from 1 to 10, with higher scores reflecting greater protection of creditor rights by statute, where creditors have access to equity and collateral (La Porta et al., "Law and Finance," NBER Working Paper 5661, 1996).

(49) **Restrictions on banking.** Scores ranged from 1 to 10, with higher scores reflecting liberal, more open banking regulations (James Barth et al., "Commercial Banking Structure, Regulation and Performance: An International Comparison," Economics Working Paper 97-6, Office of the Comptroller of the Currency, U.S. Treasury Department, Washington, D.C., March 1997).

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**Country Briefs**

**SWITZERLAND**

**Rank:** 1

**Score:** 100.0

**Economic Summary and Outlook**

Switzerland's economy — one of Europe's most prosperous and stable — emerged from a three-year recession in mid-1993 and posted 1.1 percent GDP growth in 1997. The Swiss central bank's monetary policies have kept inflation very low (less than 1 percent in 1997 and zero in the first months of 1998). Unemployment has risen slightly, from 4.7 percent in 1996 to 5.2 percent in 1997. With very low interest rates, low inflation, and very high
productivity and growth, Switzerland offers a highly competitive market with strong purchasing power.

**Quantitative Performance**

Switzerland scored the highest in the quantitative component of the Capital Access Index, with consistently strong rankings in each quantitative measure. In particular, the country has low comparative tax rates (corporate income tax, capital gains tax, and value-added tax) for companies and individuals. It has a tradition of openness to world markets, which implies a competitive market with strong purchasing power. Switzerland also has a strong financial sector, especially in the areas of market capitalization and banking sector assets as a percentage of GDP. Known for having an extremely efficient financial sector that supports a favorable business environment and provides stable, cheap, and reliable long-term financing, the country received high marks for its ratio of bank credit to combined bank credit and central bank domestic assets as well as for its ratio of claims on the nonfinancial private sector to GDP. Switzerland's weaknesses are its high prices in domestic markets as well as insufficient competition due to the strength of its currency, which could become a major concern to exporters.

**Risk Performance**

Despite having a seemingly low risk rating of 99.01, Switzerland is only the fifth-best performer in the risk category. Switzerland's greatest shortcoming is its volatile currency, despite the fact that its short-term interest rate is the lowest in our group of countries. Additional risk weakness can be attributed to a fairly volatile interest rate. Despite this volatility, Switzerland's equity market has one of the best liquidity ratios of our sample. Thus, once Switzerland — known for its political stability and high standard of living — finally abolishes the gold standard, enabling the central bank to sell its surplus gold reserves, government officials expect the economy to strengthen. This could lead to an increase in IPO activity.

**Qualitative Performance**

As expected, Switzerland ranked first in qualitative performance with a score of 100. Switzerland's financial system is considered to be the world's most solid. Major Swiss banks maintain representation in most of the world's financial centers. The entire Swiss financial industry is tightly regulated so that the strong reputation of their banks remains intact. For these reasons, it is no wonder that Switzerland has the least restrictive banking and securities laws, most foreign investment protection, and greatest access to other countries' capital markets. Unlike banking systems in other nations, requirements for liquidity and capital are written into Swiss banking law.
**Rank:** 2

**Score:** 98.67

**Economic Summary and Outlook**

Since the recession in the second quarter of 1992, the United Kingdom's GDP has risen in every quarter. The average annual increase has been nearly 3 percent. The country — a highly open economy, with exports accounting for 28.4 percent of GDP — is the world's fifth-largest exporter of goods and services. With the currency strong and macroeconomic policy tight, inflation is projected to be above the official target of 2.5 percent in 1998 despite the slowdown in real GDP growth and the rise in unemployment.

**Quantitative Performance**

The United Kingdom ranks third in the quantitative measures category. In terms of ability to borrow, the United Kingdom has a lower market-adjusted debt ratio than any other major economy. It is the most successful in Europe in attracting investment from foreign companies, securing about 40 percent of both U.S. and Japanese inward investment. Foreign-owned firms employ nearly one-fifth of the labor force in the U.K. manufacturing industry, produce nearly one-quarter of output, and were responsible for almost one-third of all capital investment. The country also received a high ranking both in equity market capitalization and the proportion of its claims on the nonfinancial private sector, which most likely are due to recent government initiatives to increase openness and transparency. Finally, as a result of a "deficit reduction plan" introduced in July 1997, the United Kingdom's ratio of government debt to GDP is at a stable and prudent level.

**Risk Performance**

A highly volatile interest rate and low interest-rate spreads earned the United Kingdom a low risk-performance rating among countries in the survey. Both its equity market liquidity and IPO activity are not as robust as they should be. In contrast, its interest-rate and stock market volatility are fairly low relative to other countries in the survey. Recent reductions in the repurchase agreement (repo) rate by 25 basis points to 7.25 percent due to the Asian and Russian crises could help this measure of risk.

**Qualitative Performance**

Like Switzerland, the United Kingdom scored high on qualitative measures because of its sound and stable financial system. The country tied Switzerland in measures such as securities law, foreign investors' freedom to acquire corporate control, and government regulations. There are about 480 authorized banks in the United Kingdom, more than half of which are branches or subsidiaries of foreign banks. The Bank of England, however, oversees and monitors all branch operations to ensure each has adequate resources to absorb losses in the event of financial failure.
THE NETHERLANDS

Rank: 3
Score: 97.95

Economic Summary and Outlook

The Netherlands achieved an overall score of 97.95. Its highly developed and affluent economy is based on private enterprise. The government plays an important role in the economy through regulations and programs that impact economic activity. Real GDP rose by 4.3 percent, the strongest growth in the past seven years — 1.1 percent higher than in the last quarter of 1995. For the eighth quarter in a row, GDP growth exceeded 3 percent. This compares with a growth rate of 2.25 percent in 1997. Although the Netherlands' trade was affected by the turmoil of the Asian financial crisis, this effect was offset by a rising trade surplus in the EU countries. Currently, high unemployment and a sizable budget deficit are the most serious problems.

Quantitative Performance

The Netherlands did comparatively poorly in the quantitative category of the Capital Access Index, scoring 96.27. Government spending and government debt are two areas in which the country ranks among the worst. This is no surprise, as government debt accounts for more than 70 percent of the country's GDP. The Netherlands also has high rates of financial concentration. Its top five banks' assets-to-GDP and equity market concentration ratios indicate this problem.

Risk Performance

In contrast to its quantitative performance, the Netherlands scored significantly well in several risk-performance areas. As a result, it earned a score of 99.75, second only to Austria. With low interest-rate volatility and low interest-rate spreads, its equity market liquidity is average and IPO activity is not as robust as it could be. However, the Netherlands earns the highest marks for its legal system and creditor rights, implying a more open economy with fewer (but better-enforced) restrictions.

Qualitative Performance

The Netherlands followed the United Kingdom in its qualitative performance scores, earning the highest Moody's bank strength rating as well as the highest rankings for securities law, state interference in business, and foreign investment protection variables. While the central bank, De Nederlandsche Bank, monitors compliance with guidelines concerning credit, liquidity, and solvency, the Minister of Finance is responsible for implementing tax laws and guidelines. Oddly enough, the Netherlands' scores on those variables concerning banks' financial condition, tax evasion, and regulation enforcement were fairly poor. These low scores most likely
are due to the continuing unrest in the Asian and other emerging economies; they should increase as the Dutch economy rebounds, company profits rise, and the number of bankruptcies declines.

**FINLAND**

**Rank:** 4  
**Score:** 97.54

**Economic Summary and Outlook**

Finland ranks fourth overall with a score of 97.54. The country is a highly industrialized, largely free-market economy. Real GDP growth reached 5.9 percent in 1997. Growth is due both to domestic demand and the external sector: Exports of goods and services account for 12.8 percent of GDP growth, and domestic demand accounts for 4.3 percent. The service sector is Finland's most important, accounting for 44.9 percent of GDP. Finland expects to be able to meet the EMU criterion for inflation as it currently has the lowest rate among all EU countries.

**Quantitative Performance**

The highest share of Finland's high quantitative performance score comes from its performance on measures such as the ratio of claims on the nonfinancial private sector to total domestic credit and its corporate income tax rate of only 28 percent. Finland's government debt-to-GDP ratio of 55.8 percent places it fourth among Index countries. In 1999, the general government budget should move into surplus for the first time since 1990 to meet the convergence criteria set in the Maastrict treaty.

**Risk Performance**

In the risk category, Finland earned a slightly lower score than it did in the quantitative category (96.41 versus 98.06). High stock market volatility and equity market liquidity both lowered the country's ranking. Increasing IPO activity would be a boon for access to capital, as Finland's IPO activity as a share of total issues ranked in the upper half of Index countries.

Finland's short-term interest rates were among the lowest, offering investors more stability than other countries. On the other hand, its highly liquid equity market scares away most long-term investors. The Finnish markka was not stable in 1997 and continued to weaken against the deutsche mark in the first half of 1998. Similarly, the currency depreciated sharply against the dollar, from 4.59 to 5.19 FIM to U.S. dollars in 1996 and 1997 respectively.

**Qualitative Performance**

Compared with Sweden and Norway, where the Russian and Asian crises
have caused interest rates to rise, Finland has managed rather well, ranking high in qualitative performance measures despite the crises. In fact, in his parliamentary address in September 1998, Prime Minister Paavo Lipponen said he believed that Finland's domestic market has growth potential. Finns currently hold FIM to $U.S. 150 billion in bank account savings (almost as much as the state budget); Lipponen hopes this will trickle into consumption and the stock market. Consequently, it is no surprise that Finland earned high marks on securities law, interest rates, foreigners' access to other countries' capital markets, and access to foreign capital markets. Finland also is advancing in the use of information technology. Except for a few low marks in government policies and regulations, Finland's ranking in the qualitative category is expected to improve as the government's popularity grows and EU membership strengthens the country's economy and security. The general election will be held in March 1999.

AUSTRIA

Rank: 5
Score: 97.38

Economic Summary and Outlook

Austria ranks fifth overall with a score of 97.38. With GDP growth of 1.6 percent in 1996 and 2.5 percent in 1997, the cyclical upswing in Austria seems to have accelerated into 1998. The strongest contribution to this growth was Austria's decision to join the EU in 1994, which led to an investment boom in capital goods by both domestic and foreign-owned companies. Exports have and will continue to be the mainstay of the economic upswing despite the appreciation of the Austrian schilling vis-à-vis the currencies of some of its trading partners. Finally, the current account, which has been a major policy issue since 1994, seems to be stabilizing; it registered a deficit of $3.9 billion in 1997, compared to $4.0 billion in 1996.

Quantitative Performance

Austria was an average performer in the quantitative section of the Index. It was hurt by its stock market performance, which led to the worst score in equity market capitalization to GDP. Access to capital was further impaired by a high market-adjusted debt ratio, though this variable could improve in 1998 as confidence in future economic performance and the success of the EMU translate into higher returns to long-term investments. However, Austria has the best equity market concentration compared to the other countries surveyed. In terms of taxation, Austria was average; this will be an area in which Austria could greatly improve as the year 2000 draws nearer, since a major tax reform will be implemented by the next general election. In terms of global competitive advantage, Austria's ratio of internal to external funds was one of the worst. However, this is expected to improve significantly as Europe's growth accelerates after its economic unification and as employment continues to rise.
Risk Performance

Whereas Austria performed poorly in the quantitative category, the country fared surprisingly well in the risk category, earning a score of 100.00. Though the short-term interest rate was not the best-performing variable, the associated interest-rate stability was the fourth-strongest among Index countries. This should lead to higher investment as financing becomes cheaper. While IPO market activity is high, currency volatility in Austria is relatively low.

Qualitative Performance

Austria posted good results in the qualitative category, with its primary strengths coming from its legal system, securities law, and banks' financial condition. In 1996, Austria's long-term capital represented one of the best inward-investment-per-capita figures in the world as the global business community invested a record of 40 billion Austrian schillings ($31.5 billion) in the country. The explanation proffered for this inward investment was that Austria's capital assets, including real estate, are relatively cheap compared to those of the rest of Europe. While Austria ranked third among countries with the least restrictive banking, it scored significantly lower on foreign investors' freedom to acquire corporate control. All in all, Austria is perceived not only as an "affordable country" but also one that provides investors with attractive levels of return combined with a security of value.

SPAIN

Rank: 6

Score: 97.36

Economic Summary and Outlook

Spain ranks sixth overall with a score of 97.36. Spain's GDP grew 3.4 percent in real terms in 1997 compared to 2.3 percent in 1996. The country's growth was driven more by private consumption (supported by continued rises in employment and personal disposable income) and investment than by consumer demand. While exports grew in excess of 15 percent, growth in imports was high enough to counterbalance the strong performance of the export sector. As a result, Spain recorded a marginally positive current account balance in 1997. The gradual implementation of labor reform has favorably affected employment recovery and has reduced the unemployment rate, currently at about 19 percent. Despite heightened economic and employment growth, there are still important issues to be resolved in the labor market to bring the country in accordance with EU standards before 2000.

Quantitative Performance
Spain's quantitative performance varied greatly among the Index's indicators. Its government spending as a share of GDP was favorable among Index countries, while its government debt as a share of GDP was high. The trade deficit is expected to deteriorate as imports continue to grow faster than exports. While Spain's ratio of M2 as a share of reserves was the best among the countries surveyed, its M2 velocity was just average. As Spain prepares to meet the EMU's requirements for integration, monetary policy will also be influenced by the stability of the financial markets. Its corporate bond market capitalization was below average, but its equity market capitalization as a share of GDP ranked eighth-best, which is quite impressive considering the recent downward adjustment in stock prices.

**Risk Performance**

Spain performed poorly in the risk category of the Index. Most of its deficiencies in this measure are attributable to its volatile interest rates, currency, and stock market. The Madrid stock market has continued to follow most of the main market trends in Europe, affected by the crisis in Southeast Asia, the currency devaluation in Russia, and the recent bearish sentiment in the U.S. stock market. Finally, while the equity market is extremely liquid (Spain ranks first among Index countries), it has a less active IPO market (ranking fifth).

**Qualitative Performance**

Spain scored well in the qualitative category, especially in the areas of investment climate, enforcement of regulations, and low tax evasion. Unlike the money market, the credit and stock markets are closely administered and confined. Worthy of note is the level of concentration of the Spanish financial system, which at present is similar to European levels; the three largest banks account for 38 percent of deposits, compared to the European average of 41 percent. As a result, the state actively intervenes in business investment. Moreover, Spain is only average in terms of openness. While banks have wide powers in their securities activities, access to capital is not as free as could be expected.

**NORWAY**

**Rank:** 7

**Score:** 97.07

**Economic Summary and Outlook**

Norway ranks seventh overall with a score of 97.07. Although Norway's economy is based on free enterprise, its government exercises a considerable amount of supervision and control. The country's economy continues to be strong — primarily on the mainland — with real GDP growing at 3.4 percent in 1997 and 4.3 percent in the first quarter of 1998. Encouraged by favorable balance sheets and easy monetary conditions, the
country's unemployment rate fell from 4.9 percent in 1996 to 3.9 percent in 1997. Although the rate of inflation is currently fairly low, investment activity will be growing at a slower rate as projects in the oil and gas sector near completion by the year's end. While domestic demand is expected to slow down next year, private consumption will likely be growing at a slower pace as job growth levels off and real wage increases fall below those of previous years.

Quantitative Performance

Norway's average score in the quantitative section can be explained by its low rank in the following variables: ratios of internal to external funds, government bonds to GDP, and financial concentration. Norway's capital gains tax is relatively high, but its corporate income tax rate of 28 percent may improve its quantitative measure in the next Index. Equity market capitalization as a share of GDP ranked slightly below average, but recent market gains should bolster its performance in this category. Norway's most impressive quantitative measure was its ratio of government debt to GDP, which ranked the best among Index countries.

Risk Performance

Norway fared worse in the risk category than it did in the quantitative section, earning a score of 96.04. Exchange rate and interest rate pressures are to blame for this low score, as the country ranks second-highest in currency volatility and in interest rate spreads. This can be explained by the strengthening of the krone exchange rate since late 1996, which has been appreciating by about 4 percent against the ECU basket. At the beginning of 1997, however, the Bank of Norway reduced the liquidity of the long krone positions, thereby discouraging further speculative capital inflows for some time. As a result, by July 1997, the appreciation of the krone was reversed but has rebounded since then due to the strengthening of the U.S. dollar and pound sterling. The gap between short-term and long-term interest rates was wider in 1997 than in 1996 — another indication that capital access may continue to be weak. Further, the ratio of IPOs to total market capitalization was only 13th among Index countries. This can be attributed to the substantial involvement and control of the state in domestic industries, which discourages IPO activities.

Qualitative Performance

Traditionally, Norway's capital markets have been of limited importance because of the strict regulation of financial markets and the availability of alternative sources of finance for Norwegian companies. However, the situation in the last 20 years has changed and stock market activity has increased dramatically. Norway placed well in the qualitative performance measures with the exception of the financial condition of its banks and the role of state-controlled enterprises. As Norway works to conform to EU directives, the government will relax both its interference in business and the regulations it imposes on foreign private investment.
GERMANY

Rank: 8

Score: 96.92

Economic Summary and Outlook

Germany's $2.1 trillion economy is the largest in Europe and is the second most important European market for U.S. companies. The country's real GDP grew to 2.2 percent in 1997 from 1.4 percent in 1996, indicating growth in exports and construction investment despite the slump in Asian markets. Private consumption, which makes up 57.2 percent of total GDP, will continue to drive economic growth. Unemployment, which has stabilized at about 11 percent, remains a major concern as a high level of joblessness, very high wages, and restrictive labor legislation persist. The Social Democrats and the Greens have finalized details of who will get cabinet posts in their new coalition government. The new government will be faced with competing pressures to raise spending and reduce taxation, as well as to reduce personal and company income tax to stimulate job creation.

Quantitative Performance

Germany's score in the quantitative section was significantly hampered by the worst corporate income tax rate and fourth-worst equity market capitalization as a share of GDP. Although the DAX Index has performed well since the October mini-crash on news of corporate restructuring and stronger export growth, the country's most serious and deep-seated problem — unemployment — leaves a lot of investors cautious. Yet, the high ratio of IPOs to total market capitalization and of corporate bonds to GDP are indicative of a strong and well diversified financial structure. The historical and ongoing integration and concentration of banking and industrial interests constrain entrepreneurial growth in Germany. The country's companies are investing abroad to an increasing extent; and with substantial tax cuts on incomes and company profits, investors can rely on stable political and social conditions.

Risk Performance

Germany scored significantly higher in risk measures than in quantitative ones. In particular, Germany's third-highest ranking in low interest rates and second-highest ranking in low interest-rate spreads over U.S. Treasuries are major components of its strong performance. Low interest rates mean higher confidence and improved competitiveness, which result in more investments in machinery and equipment. Likewise, low interest-rate spreads allow companies to make long-term investments in projects that stimulate the economy. While Germany ranks second-highest in equity market liquidity, its equity market volatility variable ranked only eighth-best and its ratio of IPOs to total market capitalization placed ninth. Moderate exchange-rate volatility, and thus moderate interest-rate volatility risk, accounts for Germany's average score in the risk category.
Qualitative Performance

Germany ranks even lower in our measure of qualitative performance. Except for its legal system and access to foreign capital markets, Germany placed poorly in all measures in this category. In particular, the country scored worst in terms of foreign investment protection, in foreign investors' freedom to acquire corporate control, and in the role of state-controlled enterprises. Germany also lagged in terms of its banks' financial condition. While the Bundesbank is famous for its independence, it is obliged to support actual government policy. For example, the Asian crisis in 1997 resulted in the deutsche mark oscillating between strength and weakness against the U.S. dollar and pound sterling; as a result, the German government planned to revalue its gold reserves to meet the Maastricht treaty. While the Bundesbank rejected the plans, the government went ahead, revaluing the gold reserves to Bonn. This conflict has several important implications, one of which is the role of the government in the financial system.

ITALY

Rank: 9

Score: 96.29

Economic Summary and Outlook

Italy's overall score of 96.29 places it ninth among Index countries. The country has quickly developed into an industrial state and is now ranked as the world's fifth-largest industrial economy. Italy's economy slowed from a GDP growth of 2.8 percent in 1995 to 0.7 percent in 1996, but rebounded to 1.5 percent in 1997. Its foreign balances are currently negative, with import growth rising by about 8 percent this year and export growth continuing its downward trend by 6.4 percent. Inflation in 1997 fell again to 1.7 percent from 3.9 percent in 1996. Italy has enjoyed a budget surplus for the past five years, and the government deficit of 2.7 percent of GDP in 1997 is in line with the Maastricht treaty target for EMU. However, the political situation in Italy—the collapse of its government—poses a substantial risk to the future of the country's economy.

Quantitative Performance

Italy ranked low in quantitative and risk measures, although it did reasonably well in qualitative measures. The quantitative measures in which it performed the worst were the ones that measured the breadth and depth of the banking system. It also did badly in the measure of equity market capitalization to GDP. Italy ranked poorly in its government debt as a share of GDP, although this is not expected to continue, since budgetary procedures have been reformed to increase the transparency of public accounts and tighten control on public expenditures. In addition, Italy's internal to external funds ratio is high at 35.5, and its market-adjusted debt
ratio of 79 percent is also high. This has negative implications for access to capital. However, financial concentration, as indicated by the ratio of assets of the country’s top five banks to GDP, was lowest among Index countries. Its equity market concentration was average.

**Risk Performance**

Italy performed poorly in the risk category; it scored significantly lower across the board than any of the Index countries in this area. Especially in the area of equity markets, Italy's market liquidity is low and the IPO market is fairly slow. Similarly, its equity and interest rates are highly volatile, signifying unstable equity market conditions where consumer confidence is weak and domestic demand is low. Its measure of exchange-rate volatility ranked tenth among Index countries, although the devaluation of the lira against the U.S. dollar is expected to wear off.

**Qualitative Performance**

While Italy scored significantly higher in qualitative measures than in risk measures, it was the worst among Index countries in several variables. Foreign citizens are not as free to invest in stocks and bonds or open accounts in other countries, and investment protection schemes are not as readily available for foreign investors as in the United Kingdom or Switzerland. The government, however, plays only a small role in the investment process; Italy scored above average in the role of state-controlled enterprises, in the imposition of government regulations on business competitiveness, and in state interference in private business. As European integration approaches, though, Italy’s government will play a more significant role in intervening in the country's financial system.

**FRANCE**

**Rank:** 10

**Score:** 96.04

**Economic Summary and Outlook**

France earned an overall score of 96.04 and ranks tenth in this Capital Access Index. The fourth-largest industrialized economy in the world, France experienced moderate growth in 1997, with an increase in GDP of 2.3 percent compared to 1.6 percent in 1996. With private consumption and fixed investment rising sharply from the beginning of this year, real GDP growth is estimated to be higher in 1998 than its rate of 2.3 percent in 1997. While job growth is currently at about 2 percent, the trend of declining unemployment is boosting consumer confidence and consumption. The inflation rate of 1.1 percent in 1997 was much lower than the one required by EU standards.

**Quantitative Performance**
France's score in this category was hurt by a high ratio of government spending to GDP and a high ratio of M2 to reserves. The country's deficit at the end of 1997 was 3.5 percent of GDP, down from 4.5 percent in 1996; The Economist's Economic Intelligence Unit (EIU) expects this trend to continue as France works to qualify for EMU and as the government takes the necessary steps to bring the separate social security budget into balance. On the other hand, the equity market concentration ratio (the second-best) and capital gains tax of 19 percent (the fourth-best) helped France's overall ranking of capital access. Despite the recent market turbulence, the ratio of market capitalization of shares listed on the Paris stock exchange to GDP (ranking only ninth) and the ratio of the corporate bond market to GDP (ranking only tenth) should get stronger as French companies begin to increase merger and acquisition activity and as consumer confidence remains in good shape.

**Risk Performance**

France ranks third in risk performance with an impressive score of 99.38. Due to its relatively low exposure to the Asian crisis and the bias of the stock index to the consumer index, France's market has been leading Europe. Strength in this category was provided mostly by the Paris stock exchange, which offered investors an average market liquidity but a fairly active IPO market. Although France's short-term interest rate ranked fifth-best among Index countries, its volatility was the third-lowest. Its risk score could rise when the European market stabilizes, which might boost France's current tenth-place stock volatility rating.

**Qualitative Performance**

France scored significantly lower than other Index countries in the qualitative category. Government involvement in the economy was an important factor: State interference in private business is high, government regulations impose a heavy burden on business competitiveness, and government economic policies are neither transparent nor impartial. Similarly, in taxation, France fared below average. The country scored better across the board in terms of openness except for access to foreign capital markets; French citizens are not as free to invest in foreign stocks and bonds. Continuing reforms in government policies such as privatization, decentralization, and a more open economy should help the economy's liberal transition and in turn offer the nation a greater prospect of improving its Index ranking.

**PORTUGAL**

**Rank:** 11  
**Score:** 95.78

**Economic Summary and Outlook**
Portugal ranks 11th overall with a score of 95.78. Portugal's economy registered a 3.6 percent growth rate in 1997, driven by high levels of public investment, strong export growth, and sustained domestic demand. Inflation averaged 2.1 percent in 1997, down from 3.2 percent in 1996; government debt fell from 66.1 percent in 1996 to 62 percent in 1997. The country's economy is closely tied to Spain's, and its top export market is Germany. By next year, Portugal is expected to be the poorest country in Europe to be in the first tier of EU countries to join in EMU. This will provide the economy with a more stable macroeconomic framework, promoting reduced inflationary pressures, a stable escudo, and therefore a more competitive marketplace. As good as this sounds, in the long term Portugal will have to undergo many more structural changes and embrace more dynamic economic policies.

Quantitative Performance

Portugal's quantitative score was 96.54. It is no surprise that the country ranks below average across the board in this category. A few variables that stood out as good were its ratio of internal to external funds, a low capital gains tax, and low value-added taxation (third-lowest among Index countries). On the gloomy side, Portugal's ratios of government deficit and government debt to GDP are both higher than other Index countries. However, Finance Minister Antonio Souso Franco has said that the deficit target is likely to improve and that a balanced budget will be achieved to meet the Convergence Plan, which extends to the year 2000. As a result, Portugal will most likely achieve a higher score in the next Capital Access Index.

Risk Performance

Portugal's performance in the risk category was also weak, earning a score of 95.52. One measure that stood out as good, however, was the active issuance of IPOs to total market capitalization. Portugal placed first in this measure — a surprise to us all, as the country has one of the least-capitalized markets in the EU. Portugal's stock market (the Lisbon and Oporto stock exchanges) is extremely volatile (ranking 14th), and its highly volatile exchange rate and high short-term interest rates further exaggerated negative pressures imparted by the tight market liquidity.

Qualitative Performance

Portugal's direct investment has grown substantially in recent years as national companies in the global market become more involved. Portugal's below-average score in qualitative measures is mainly attributed to issues of openness such as the degree of state interference in business, foreign investment protection, and foreign investors' freedom to acquire corporate control. The country also performed poorly in the extent of government intervention in the economy. Though considered to be one of the poorest countries to join the EMU next year, Portugal's economy should rank well in our next measure of qualitative performance as the country strives to meet EMU requirements, thereby speeding reforms necessary to improve access to capital.
SWEDEN

Rank: 12

Score: 95.76

Economic Summary and Outlook

Sweden earned a score of 95.76 and ranks 12th among Index countries. Productivity in Sweden's economy has risen sharply in recent years: Growth averaged 1.8 percent in 1997, up from 1.3 percent in 1996. The rate of inflation decreased markedly in 1996 to 0.4 percent from 2.5 percent in the previous year. In the first half of 1998 Sweden enjoyed a rich standard of living, as private and public consumption and investment activity grew much more strongly than in previous years. Unemployment has been stable, fluctuating around 8 percent; EIU forecasts the trend to decline gradually to 6.6 percent in the second quarter of 1998 as the economy grows stronger and as more labor programs are implemented. All in all, Sweden is attractive to foreign investors; its attractiveness will be further enhanced as the country heads toward membership in the EMU next January.

Quantitative Performance

Sweden placed near the bottom of Index countries in quantitative performance. However, while its ratio of government debt to GDP was the third-highest, its government spending ratio was only ninth-highest. These indicators should improve as central government finances improve and as government policies focus more on issues of unemployment, increased training and education, and welfare spending. Two measures that stood out as good were M2 velocity and corporate income tax rates of 28 percent, which ranked best and second-best, respectively. With a skilled and pragmatic workforce, a well developed infrastructure, and a low corporate tax rate, it is no surprise that Sweden is an attractive location for foreign investments. Despite the recent shock caused by international financial crises, Sweden's equity market capitalization as a percentage of GDP (ranked fourth-best) and its ratio of corporate bonds to GDP (ranked second-best) should remain strong as more investors continue to find Euroland reasonably attractive compared to Asia or Latin America.

Risk Performance

As in the quantitative category, Sweden received a low risk-performance score. The two measures most responsible for its low ranking are interest-rate and exchange-rate volatility. However, as interest rates stabilize and foreign-exchange risk is eliminated as a result of a single European currency (the euro), Sweden should fare much better in this category in the next Capital Access Index. Sweden also has a high interest rate, the tenth-worst among surveyed countries. While the stock market is neither too volatile nor too liquid, the IPO market is just average. These measures should improve
significantly in the next version of the Capital Access Index as the financial account shows a jump in foreign direct investment as well as in the outflow of direct investment in the first five months of this year.

**Qualitative Performance**

With a score of 94.91 in the qualitative category, Sweden performed poorly across the board with the exception of its securities law, as its central bank, the Riksbank, has somewhat restricted powers. Although Sweden ranked last in terms of investment climate, the country performed extremely well in measures of its legal system and creditor rights. Foreign interest in the Swedish market has been growing since the 1980s, fostered by the removal of foreign exchange controls. The continuation of this trend should help Sweden foster better conditions for capital access.

**DENMARK**

*Rank: 13*

*Score: 95.74*

**Economic Summary and Outlook**

Denmark ranks 13th with a score of 95.74. The country is considered to be one of the most stable economies in Europe, as its economy has outperformed the European average in terms of both growth and inflation. With its stable exchange rate and its discount rate of 3.75 percent — its lowest level in 60 years — Dunn & Bradstreet ranks Denmark one of the safest countries in Europe for foreign direct investment. Economic growth was at 3.7 percent in the first quarter of this year, up from 3.4 percent in 1997. Inflation has been stable, hovering at around 2.2 percent, and the unemployment rate of 6 percent is at an all-time low. With respect to the Danish krone in the EMU, the future is uncertain — Denmark has successfully adopted a fixed exchange rate policy over the last 15 years. Will the EMU change its current structure due to the many changes that will be imposed?

**Quantitative Performance**

Denmark earned an overall score of 95.99 in the quantitative category. The areas in which Denmark scored the lowest were taxation and government spending. While a corporate income tax rate of 40 percent discourages firms from investing in new projects, a capital gains tax of 25 percent dissuades enterprises from raising equity finance. Government spending accounts for 43 percent of Denmark's total GDP; although this number appears a little high, it is still much lower than that of France or the Netherlands. Denmark ranked first in its ratio of government bonds as a share of GDP. However, the rest of the measures — banking sector assets as a share of GDP, bank credit to bank credit and central bank domestic assets, and claims on the nonfinancial private sector to GDP — pulled Denmark's ranking down to
13th place.

**Risk Performance**

Denmark also scored below average in the risk category, with the exception of a couple of measures. Its stock market is the least volatile, and its interest rates, though average, are much less volatile compared to those of other Index countries whose overall rankings are much higher than its own. Denmark's low score on the issuance of IPOs to total market capitalization should improve as more laws and regulations are being introduced to allow the orderly development of funding, investment, and disinvestment.

**Qualitative Performance**

Denmark almost tied with Sweden in the qualitative measures category. Blessed with a strong domestic economy, low interest rates, and falling unemployment, the country had no problem meeting the requirements of the Maastricht treaty. As a result, Denmark has an extremely attractive environment for the stock market and for overseas investors — so why is its ranking so low? While Denmark sets no restrictions on nonresidents' investments or borrowing, its government plays a significant role in fiscal and exchange rate policy. In the long run, Denmark's score in this area should improve as the economy shapes up and the krone grows stronger.

**BELGIUM**

Rank: 14

Score: 95.17

**Economic Summary and Outlook**

Belgium ranked 14th with a score of 95.17. Though a highly developed market economy, Belgium has been very dependent on the health of world markets, with exports and imports each accounting for more than 80 percent of its GDP. Belgium's economy grew at 2.9 percent in 1997 and expanded 3.5 percent year-on-year in the first quarter of 1998. With its small open economy, Belgium is extremely vulnerable to economic downturns in the Netherlands, Germany, and France due to its heavy involvement in trade. While unemployment, according to Belgium's definitions, fell to 11.9 percent compared with 12.7 percent for the second quarter of 1997, inflation remains subdued at 1.6 percent, down from 2.1 percent in 1996.

**Quantitative Performance**

Belgium ranks last in the quantitative category, owing all of its flaws to high government spending and government debt. Though the government is
making significant efforts to control its expenditures to bring these figures more in line with those of other industrialized countries, the country's public debt remains high at 122.2 percent of GDP, and its government spending remains at 49 percent of GDP. Belgium's poor score is also attributed to its high ratio of M2 to total reserves, high corporate income tax rate of 40 percent, and high capital gains tax rates of 40 percent. Despite past reforms, Belgium's tax system has numerous fiscal loopholes. Whereas indirect taxes are lower than the EU average, personal income tax and social security contributions are particularly high. Belgium also lags in terms of financial concentration, ranking 13th across both measures (bank assets as a share of GDP and equity market concentration).

Risk Performance

Belgium fared much better in the risk category than in the quantitative category. In fact, the country ranks sixth in this category, mainly due to its stable exchange rate, stock market, and interest rate. For years, monetary policy was centered around keeping the Belgian franc close to a central parity with the deutsche mark. As a result, Belgium's interest rates at the short and long end of the yield curve tended to move toward interest rates in Germany. EIU forecasts this trend to rise toward the end of 1998 along with interest rates issued in euro, and will be reinforced by the negative performance of the European and U.S. stock exchanges following the Asian crisis. While the Brussels stock exchange outperformed its EU peers in the second half of 1998, it was less liquid and more volatile than those of other Index countries.

Qualitative Performance

Belgium ranked higher than France in the qualitative measures category but lower in the risk and quantitative measures. While the economy is highly open, its sensitivity to exchange rate movements mirror those of Germany, France, and the Netherlands. As our results show, Belgium was rated second in terms of Moody's bank strength and fairly above average in terms of the country's openness. Since the Asian crisis, the stock market has proved more resilient than those of other Index countries; this trend will probably continue as investors increasingly look for stable and liquid markets.

GREECE

Rank: 15

Score: 94.18

Economic Summary and Outlook

Since our first Capital Access Index in which this country was reviewed (and, in fact, since 1993), Greece has continued to enjoy positive economic growth. Real GDP growth registered 3.5 percent in 1997 and was estimated
to grow at 3.8 percent for 1998. The devaluation of the Greek drachma earlier this year against the ECU will continue to help fuel exports, while inflation should continue its downward trend. The country is currently striving to reduce its budget deficit, debt, and inflation rate to meet the prerequisites for EMU.

**Quantitative Performance**

Greece's worst-performing variables in the quantitative section of the Index were its ratios of government debt and government bonds to GDP. The government traditionally has played a very important role in the economy. Government expenditures amount to 43 percent of GDP, though cuts in budget expenditure as required for entrance into the EMU could improve this measure over the next few years. In this review, the high market-adjusted debt ratio and low equity market capitalization also hampered Greece's quantitative ranking; in the next review this measure should improve significantly, as the size of Greece's equity market has increased by more than $20.6 billion, or 68.2 percent, since the end of 1997. One notable measure was its ratio of internal to external funds, in which Greece ranked the best. Unlike other, more advanced industrial nations, Greece is much less open to inward foreign direct investment and therefore keeps access to capital very low.

**Risk Performance**

Greece's performance in the risk category was for the most part the worst across the board. Due to the recent Asian currency crisis, Greece suffered from major exchange-rate and interest-rate volatility, which greatly affected its stock market activity. Although the Bank of Greece successfully contained speculative attacks on the drachma by tightening monetary policy, interest rates (at their normal rates) are still the highest among Index countries. Greece is one of the few Index countries to enjoy relatively high market liquidity despite its high stock market volatility. Additionally, Greece has a very poor IPO market among Index countries. In sum, high interest rates are still a major problem and are unlikely to go away soon because of the strong drachma and the still-high public sector borrowing requirement. Any improvement in this category will rely heavily on the government's success in achieving budget targets.

**Qualitative Performance**

Greece scored low in the qualitative area, with especially low rankings for its legal system, creditor rights, and banking restrictions. While the country also received low ratings for its banks from Moody's, enforcement of regulations is low and state interference in business is exceptionally high. As European Union nears, Greece's score is expected to improve as the country follows the path of structural reform needed to prosper in a more dynamic regional economy.