Merrill Lynch

Special Report

Europe

15 July 1998

Markus E. Barth, CFA
First Vice-President
Int'l Quantitative Strategy
(1) 212 449-7523
markus_barth@ml.com

European Quantitative Viewpoint

EMU: The Emperor Has No Clothes!
Implications For European Fund Managers

International Quantitative Strategy:

Why Euroland is NOT The USA
Sectors vs. Countries
European Benchmark Changes
Implications For Stock Selection

Merrill Lynch & Co.
Global Securities Research & Economics Group
Quantitative Strategy Department

CONTENTS

Executive Summary:

There has been considerable analysis and discussion over the past few months regarding EMU and its effects on Euroland. Our perspective has mostly been that many of the implied changes to the fund management process in Europe will occur over a longer period than expected. It has also been our belief that many of the suggested structural changes to the European equity markets will not occur at all. We have prepared this report in an effort to outline our complete perspective on EMU, Euroland and the fund management process.

- *Converging EMU Economies? Maybe Not!*
  Our analysis has convinced us that European economies will not be synchronized after EMU comes to fruition. This conclusion is based on a number of assumptions and facts.
  1. **Economies are not in sync now. France, Germany and Holland are at a mature point in their cycles while Italy, Spain and Ireland are at early points.**
  2. **Prior to EMU, individual country monetary policy makers utilized independent yield curve shifts to manipulate the economy. After EMU, this tool is unavailable. All EMU economies become more dependent upon the EMU yield curve.**
  3. **If the above holds true, why would investors believe that cyclicals or other economically sensitive sectors would be correlated across Euroland? Therefore, it does not appear wise for fund managers to assume that country economic risk has dissipated.**
- *Why Euroland is Not the USA:*
  1. **Single Government, Pension & Tax Structure**
  2. **Single Language**
  3. **Single Accounting System (IMPORTANT!)**
  4. **Poor Labor Mobility**
- *Sectors versus Countries:*
  1. **Before EMU, fund managers analyzed benchmark country weights, then sector & industry weights within each country. Finally, there is stock selection within sectors/industries.**
  2. **After EMU, fund managers *should* analyze benchmark sector/industry weights, then *country weights within each sector!* Finally, stock selection within each country/sector builds the new portfolio. Clearly, most fund managers' behavior will change very little after EMU.**
- *Aren't European Companies Global?*
  1. **Three types of companies: Super global, global and sub global. As you go from super global to sub global, the amount of diversification within the income statement decreases. Super global companies source from multiple countries, build in multiple countries and sell to multiple countries. Global companies build locally but sell to multiple countries. Finally, sub global companies build and sell their product locally.**
  2. **The performance of super global companies determines whether or not global and sub global companies are outperformers or underperformers. Therefore local economies should still affect stock performance.**
- *How Will The Benchmark Change?*
  Will depend on where the fund manager is located.
  1. **Non-EMU based fund managers will most likely continue to use MSCI Europe (ex UK) or FT Europe. It is unlikely that these managers will ignore Swedish and Swiss stocks merely because they aren't in EMU.**
  2. **EMU-based fund managers will probably focus on EMU benchmarks because the currency restrictions will still exist outside of EMU markets. We would expect these portfolios to undergo the greatest amount of rebalancing post EMU.**
- *The Good Things About EMU*
  1. **Improved Liquidity**
  2. **Reduced Portfolio Risk (improved diversification)**
  3. **Improved Company Profitability through restructuring & M/A activity**
  4. **Increased Corporate Bond Market Liquidity**
  5. **Increased financial information flow from company to analyst to fund manager**
  6. **The potential for geometric increases in European equity markets as asset allocation shifts more from bonds into equities**
- *Implications for EMU Stock Selection*
  1. **Cross border valuations continue to be unable to provide superior performance.**
  2. **Predicting EPS Surprises appears to be one of the best EMU stock selection methodologies (using the proprietary M/L EPS Surprise model.)**

1. Introduction

There has been considerable analysis and discussion over the past few months regarding EMU and its effects on Euroland. Our perspective has mostly been that many of the implied changes to the fund management process in Europe will occur over a longer period than expected. It has also been our belief that many of the suggested structural changes to the European equity markets will not occur at all. We have prepared this report in an effort to outline our complete perspective on EMU, Euroland and the fund management process.

2. Converging EMU Economies? Maybe Not!

There has been much discussion about how first round EMU economies will somehow be in sync after EMU occurs. We simply do not understand how this could be. Although GDP growth in these countries appears to be centralizing, we aren't so sure that all of a sudden, after EMU, these economies will no longer differ significantly.

Our Favorite Example: Economies as Race Cars

Imagine that each European economy could be represented as a race car on an oval track. Accelerating economies would be represented by the cars in the front of the pack. Decelerating economies would be lagging the pack. Prior to EMU, the primary method that local economic policy makers employed was independent manipulation of their local interest rate term structure. In other words, steepening or flattening their own yield curves. After EMU, this mechanism is absent thereby making it more difficult for local economies to speed up or slow down relative to their peers using traditional methods.

Our confusion lies with the fact that if interest rate convergence occurs, how can these individual race cars (economies) affect position changes in the race (catch-up to each other)? **In other words, if everyone has the same interest rate term structure, doesn't that imply that it will become more difficult for individual economies to alter themselves relative to their neighboring economies (competing race cars)?** (We are willing to concede that other methods to adjust local economies will come into favor such as inflation control, productivity improvement, etc.)

There appears to be a strong opinion present that after EMU, all of the race cars will be lined-up at the start finish line as equals! We just can't figure this one out rationally! It is our belief that it will actually become more difficult for EMU economies to become synchronized after interest rate convergence. Inflation control, productivity and consolidation of inefficient industry players will become the new driving forces behind economic growth.

Finally, if the above example holds true, why would investors believe that cyclicals would be correlated across Euroland? (Please refer to our special report entitled *"Global Industry Correlations Handbook"*, copies available upon request.) It is our belief that after EMU, there will be certain countries with continued accelerated economic growth (Ireland, Spain, Italy) and certain countries with decelerating economies (Netherlands, Germany, France). Therefore, it does not appear wise for fund managers to assume that country risk has dissipated. Although interest rate risk and currency risk have been neutralized, there are still risks:

- **Political / Sovereign risk**
- **Credit risk**
- **Country risk**
- **Economic risk**

3. Why Euroland Is Not The USA

Many proponents of EMU have suggested that the single Euroland yield curve and single currency will make Euroland appear more like the United States. While this may be partially true, we don't agree that this will better facilitate the comparison of companies within the same sector across different markets. Let's examine some of the characteristics of the US market that allow for homogeneous fundamental stock analysis across states:

- **Single Government, Tax Structure, Pension System, Language**
  When considering the difficulty in establishing a single government body for the European Union one need only remember the difficulty in establishing EMU Central Bank leadership! Independent of where you live in the United States, you still file the same federal tax return. Finally, an employee's pension is easily transferred from state to state if the employee relocates.

- **Single Accounting System**
  The calculation of EPS does not vary by state. This facilitates comparative equity analysis without regard to which state the company operates in. Allows for comparing valuations across "borders".

Clearly a single yield curve and currency are not sufficient to turn the individual countries within Euroland into states. **Therefore we do not accept the concept of comparable cross-border valuations or overall sector analysis as a stock-picking methodology for Euroland.** We understand that this is not the predominant viewpoint but we can't see any evidence to support Euroland sector stock picking in the same manner that US equity market stock selection occurs across states.

Mobility of Labor: Looming Unemployment?

Consider an employee at an accounting firm in California who loses his/her job. It is relatively easy for that person to relocate to New York. They can roll-over their 401k pension account with no consequences. They can easily enroll their children in New York schools with little or no disruption in their educational process. They still fill out the same federal tax return and they continue to speak English.

Now consider employees at a French auto company who lose their jobs. They relocate the family to Germany to work at Volkswagen. Their French pension is not easily transferred to a German pension. They do not speak German, so their children will have considerable trouble acclimating to the German educational system. They are unfamiliar with German tax law and therefore are ill-equipped to manage their personal finances. Clearly there is much less labor mobility across Euroland than in the USA.

Finally, assuming that the current restructuring trend within Euroland continues, we believe that there is a great potential for increased unemployment as those factories and offices that are rationalized during restructuring leave hundreds of employees jobless. Compare this potential increase in unemployment with the restructuring in the US during the late eighties where greater mobility of labor allowed downsized employees to easily find work elsewhere in the country.

No Single Accounting System is the Deal-Breaker

Of all of the arguments for Euroland sector stock picking, the weakest is the fundamental difference between EPS calculations across markets. How does one compare German P/E's to French P/E's? Using US generally accepted accounting principles (GAAP) has been one suggested methodology. Intuitively, we have no problem with this approach however, a closer look reveals some weaknesses. First of all, unless all of the companies have ADR programs and published US GAAP financial statements, then there will always be companies that can't be fit into a US GAAP model. Secondly, if we assume that US GAAP standards are the proper analytical viewpoint, then we are also assuming that ***everyone*** who analyzes that company's financial statements is making the same assumption. We're not so sure that the entire global analytical work force is making this assumption. More importantly, by forcing a French or a German company's financials into a US framework, we may actually be penalizing that company's management for optimizing their financial structure to their country's financial standards instead of US standards. Our conclusion must be that until the adoption of a uniform set of accounting standards, cross market analysis for the purposes of stock-picking is a risky endeavor at best.

How Long Before We Have Uniform Accounting Standard Data?

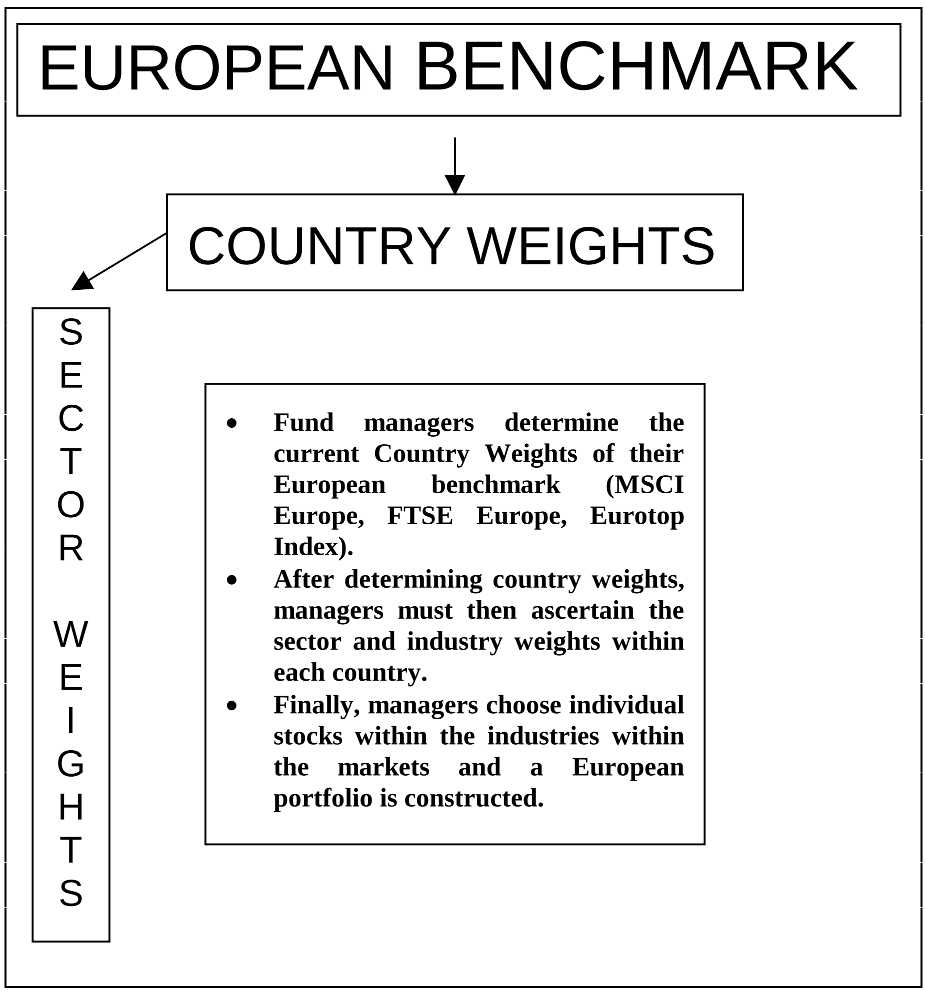
Let's make the assumption that today a uniform Euroland accounting standard is adopted. Immediately all of the chief financial officers, bookkeepers and accountants will need to go back to school to learn the new system. This should take at least 8-12 months. Then, these accountants and financial managers will need to implement new accounting systems for their internal accounting management. We figure another 6-12 months for this implementation. Finally, the historical annual financial statements must be restated and distributed to the financial community…another 6-12 months. **Our point here is that even if a uniform accounting system is adopted, it could take anywhere from 2-4 years before fundamental equity analysts have access to the new accounting statements.**

4. Sectors Vs. Countries

In addition to all of the discussion about Euroland becoming a single equity market, there have also been a great deal of commentary about how European portfolios will be constructed after EMU implementation. After careful consideration and analysis, we don't really think that the fund management process will change all that much after EMU. Let's look at how things are pre-EMU and compare them to post EMU.

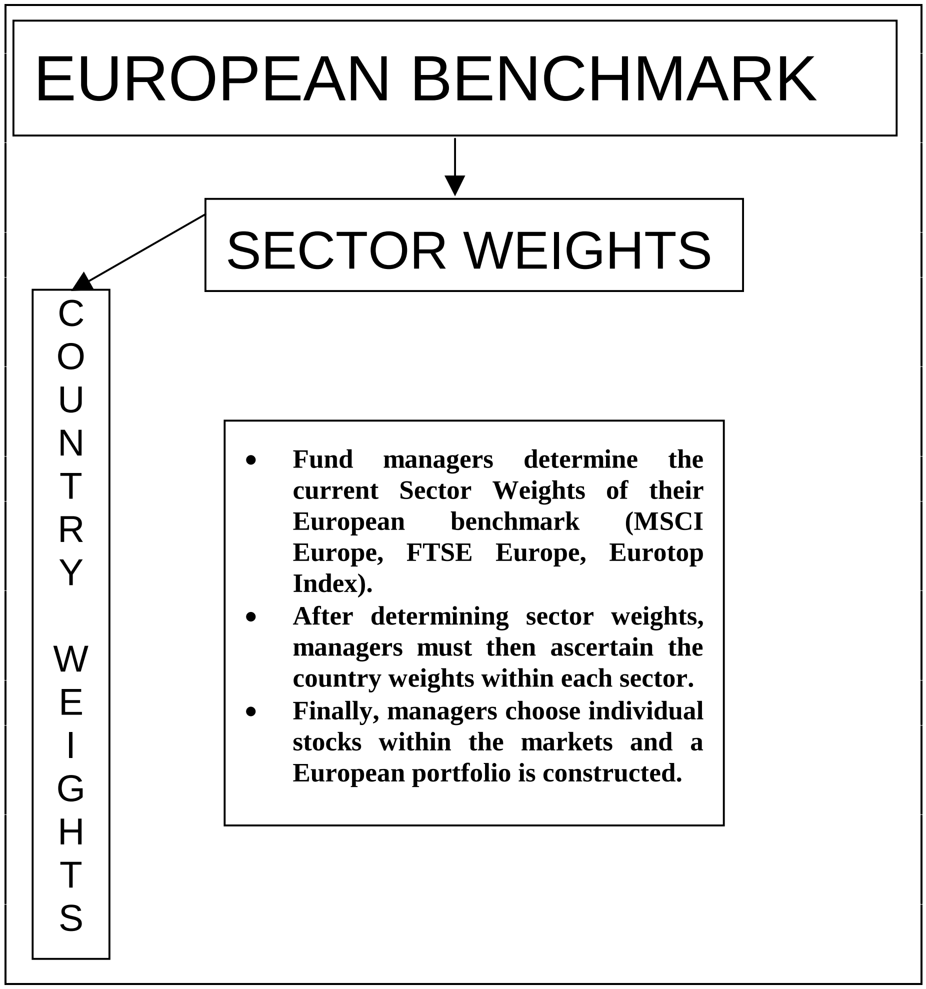
Before EMU:

- Analysis of benchmark country weights
- Analysis of sector/industry weights within each country
- Stock selection within each industry and market



After EMU:

- Analysis of benchmark sector weights
- Analysis of country weights within each sector
- Stock selection within each market and industry



- Realistically, the portfolio management process does not dramatically change after EMU!
- Instead of looking at countries and then sectors, they would merely look at sectors and then countries.
- Failure to consider individual country exposure within Euro sectors can lead to acceptance of additional risk to the portfolio.

5. Aren't European Companies Global?

One of the justifications for ignoring country weightings within Euro sectors is that companies are no longer tied to their local economies. Therefore, there is no country economic risk to these companies. This is true to some extent but not across the board. There are actually three types of company in Europe.

Super Global, Global and Sub-Global Companies

While we are willing to concede that there are companies in Europe that are not dependant upon their local economies, there are also a good number of companies that *are* exposed to some extent to their local economies. We can divide the companies in the Eurotop 300 Index into three basic types:

Super Global Companies:

Super global companies are those whose financial statements are fully diversified from top to bottom. In other words, revenues and expenses as well as financial structure are spread across more than one country. These are the companies that manufacture in more than one country, thereby immunizing themselves against local economic risk in the country in which their stock is listed. They are the truly global European companies and their earnings are relatively immune to their local economy. For these companies, there is little individual country risk.

Global Companies:

Global companies are those whose top line is diversified across multiple markets but the rest of their financial statements are still locally-based. These are the companies that may sell their product around the world although they are headquartered and do all manufacturing within one country. For these companies, their revenue growth may be immunized against local economic changes but all of the other aspects of their earnings growth are still locally dependant. For example, if a French company wishes to expand capacity, they will need to use French labor, French real estate, French construction companies, etc. Even though they may sell to many non-French markets, a major portion of their income statement is still locally-based.

Sub-Global Companies:

These are the companies in Europe that are entirely local and have little or no incentive for becoming global. Local gas and electric utilities, retail companies, restaurants, are examples of sub-global companies. They tend to be the smaller capitalization issues in the market but they do affect benchmark returns.

How Will Benchmark Returns Be Affected?

Obviously, the Super Global companies will tend to be immune from many of the post EMU risks we have mentioned already. However, the remaining companies that are not immune to local country risks (economic, political, credit) will determine whether or not the super global companies are outperformers or underperformers.

An Example:

Assume that local cyclicals in Germany outperform the super globals in Germany, investors who only owned super globals would be underperformers while investors who were diversified across Germany with both local cyclicals and super globals would probably have lower volatility and therefore lower portfolio risk.

We do believe that *eventually*, many of these risks will disappear, we are just not willing to accept that this will occur *immediately* after EMU is enabled.

6. How Will The Benchmark Change?

Another issue that should be examined is how the performance benchmark will change after EMU. Obviously, the extent to which the benchmark will change will determine how much portfolio rebalancing will be required after EMU. After an informal poll of fund mangers in the US, Japan, London and Continental Europe, it is our belief that different regions will utilize different performance benchmarks:

US & Japanese-Based European Fund Managers:
Our informal poll suggests that after EMU, US and Japanese-based fund managers will not change benchmarks. The overwhelming benchmark preference will remain the MSCI Europe (ex UK) Index. When questioned, the majority of managers indicated that they would not exclude non-EMU member countries from their portfolios. Their rationale was that even though certain markets were not going to be EMU members, they still contained attractive investments. For example, these managers were not going to divest themselves of Swiss and Swedish companies simply because they were not part of EMU. Of course, they would still be accepting additional currency risk and would have to hedge their positions against the Swedish krona and the Swiss franc. They did not appear too concerned over this requirement. **Therefore, it is our conclusion that for US and Japanese-based European fund managers, portfolio rebalancing will be minimal after EMU.**

United Kingdom-Based European Fund Managers:
Nearly all of the UK-based European fund managers indicated that they would continue to view continental Europe as they have in the past, namely, all developed pan-European markets would continue to be considered for investment. The primary difference between the UK-based manager and the US & Japanese-based fund managers is their choice of performance benchmark. The majority of those UK managers we spoke with will continue to use the FT European indices or the more recently introduced Eurotop 100 and 300 indices. **Again, our conclusion is that UK Pan-European portfolios will remain relatively unchanged after EMU. The most visible change will be a reduction in the currency hedge position. Since a majority of pan-European markets will become Euro currency-based, there will be less of a required currency hedge than is currently implemented by today's standards.**

Non-EMU Member-Based European Fund Managers:
Our informal survey of these managers suggests that they will continue to view Continental Europe in much the same manner as they have in the past. One of the major differences between these managers and those residing in The UK relates to investment in their local market. For example, Swedish-based continental European investors will excluded Sweden from their portfolios as this market is considered their "local" market. The same could be implied regarding Swiss-based European fund managers. **However, it appears as though the Eurotop indices will be the benchmark of choice for these managers. Considering that many of these managers have already adopted the Eurotop index as their performance benchmark, we would not expect major portfolio rebalancings post EMU.**

EMU-Based European Fund Managers:
We believe that this last group of managers will be impacted the most by EMU implementation. Because currency exposure has been the primary determining factor in the pre-EMU portfolio construction, we would expect their investable universe to increase by an amount equal to the increased number of common currency (Euro) markets after EMU. **The changes to EMU-member European portfolios should be great and we would expect the largest amount of portfolio rebalancings to come from this sector.**

7. Isn’t There *Anything* Good About EMU?

Now that we have spent the majority of this report tearing down some of the myths of EMU, let us examine the potential positive effects from European monetary unification. Many of the following post-EMU benefits will probably not be immediately observable, but will occur gradually over a longer period of time. Some of these benefits include: improved liquidity, reduced portfolio risk, improved company profitability, larger and more liquid corporate bond markets, increased information flow and the potential for geometric gains in many European equity market indices over the next ten years.

Improved Liquidity

Clearly, as EMU-based investors begin to add non-local markets to their portfolios, we should see a marked increase in daily trading volumes. We have referred to this activity as ***“Re-Shuffling of Ownership.”*** In order to understand this concept, let us take a simple example of three EMU markets: Germany, France and The Netherlands. As the French-based fund manager begins to increase investment in non-French markets, they will effectively be “trading” ownership of very large French positions for non-French positions, or in other words, they will trade shares in Elf for shares in Daimler Benz. Similarly, German fund managers will “trade” Daimler Benz holdings for Elf holdings. At the same time, Dutch managers will trade Philips and Royal Dutch holdings for Daimler and Elf holdings.

Overall, this should have a marginal effect upon stock prices, although daily trading volume should increase by an order of magnitude. It is our belief that the major beneficiary of this “reshuffling of ownership” will be the European brokers who will earn a margin on each transaction. It could be implied that after the initial transactions from “reshuffling of ownership” have been completed, liquidity may dry up somewhat. We would tend to think that this will not happen to a great extent because EMU-based investors will continue to trade in these stocks much the same way they used to trade in their local shares. **Our conclusion is that overall market liquidity in EMU Europe will increase dramatically as these funds diversify across more markets.**

Reduced Portfolio Risk

Clearly, as EMU-based fund managers increase exposure to markets other than their own, their portfolio risk should be reduced. This of course, is simple efficient frontier theory. **Based upon our belief that the economic cycles of EMU-member countries will not be suddenly synchronized after EMU implementation, portfolios that are exposed to multiple markets should have lower portfolio risk than before diversification was permitted or practiced.**

The effects on non-EMU-based fund managers (US, Japan, UK) should be to a lesser extent as many of these managers have long been invested across markets. However, there will be a definite reduction in portfolio risk. **This reduction of risk will be primarily due to the elimination of much of the existing currency risk that these managers face today. Additionally, transaction costs should be reduced due to the need for fewer currency hedge instruments and their related expense.**

Improved Company Profitability Through Restructuring

There has already been an increase in merger and acquisition activity throughout the European markets as companies continue to try to improve their competitiveness and profitability. We would expect this trend to continue and actually increase as more and more industries attempt to become leaner and more efficient. Comparisons to the US restructuring phenomenon of the late eighties have been made, but in this case, we would not expect as great an impact upon earnings as was experienced in the US. When US companies restructured in the late eighties, they took relatively large write-offs and in some cases reported losses as they rebuilt their balance sheets. **We have not yet observed European restructurings to the extent that they occurred in the US and therefore wouldn't expect the results to be as observable as they were in the US. We would tend to believe that the restructurings in Europe will be more of an M&A type rather than write-offs.** For example, a highly leveraged company would merge with a very low leveraged company with the resulting balance sheet containing lower overall debt. We would also expect much of this merger and acquisition activity to be funded with corporate debt as well as equity. This should lead to an increase in liquidity and volume within the European corporate paper markets.

A More Liquid Corporate Bond Market

The expected increase to merger and acquisition activity outlined above suggests a subsequent increase in the corporate bond markets. This could be expected because many of the companies in Europe today have better credit ratings than their banks. A higher credit rating would enable many of these companies to issue paper themselves at a lower cost than borrowing from banks. Clearly there are potential off-balance sheet financings that could also enable borrowing without apparent increases to leverage.

Increased Financial Information Flow

As many public companies gain increased exposure to a greater number of investors from other European markets, there should be increased pressure from the financial markets for better disclosure and perhaps more frequent reporting. As these companies compete with US companies for investment funds, they will be under more pressure to improve their financial reporting and communications with the equity markets in order to remain competitive. We would not be surprised to see a greater number of European companies reporting in multiple accounting standard formats and with more detail. This of course would facilitate better financial analysis and perhaps more efficient earnings estimates going forward.

A Geometric Rise In European Equity Markets

There has been a great tendency in the European markets to emulate the US equity market. Fund managers throughout Europe and Asia have begun to adopt generally accepted US fund management techniques. We would expect this trend to continue which **leads us to believe that there is tremendous upside potential for the European equity markets going forward.**

Asset Allocation Shifts

The average fund manager in the US is currently anywhere from 50%-60% weighted in equities. Consider that the average European fund manager is probably only 5%-15% weighted in equities, although UK, Dutch and Irish managers tend to be higher weighted in equities over the past few years. If European fund management is truly emulating US fund management, it is logical to assume that equity exposure will increase. In addition to this so-called "emulation effect", consider the European investment alternatives, cash (little or no return), bonds (relatively low returns considering convergent yield curves and an expected 4% EMU yield). **Clearly the European fund manager will be motivated to increase equity exposure. This simple asset allocation shift could help to fuel a huge market rally.**

Other Stimuli

It has often been said that a major stimulus to the US equity markets has been the combination of increased asset allocation to equities, low and steady inflation combined with relatively low and stable interest rates and one of the most stimulating monetary stances in history. Consider restructured, lean and mean companies operating in this environment and it is no wonder that we have witnessed an extended bull market!

There are almost the same set of circumstances in Europe today. There is relatively low and stable inflation, expected increases to equity asset allocation and relatively low and stable interest rates. Additionally, companies are restructuring to improve profitability, albeit to a lesser extent than in the US. The only key factor that may be somewhat lacking is tremendous monetary policy stimulus. Although yield curves in Europe are not nearly as steep as was the US yield curve in the late eighties and early nineties, we do believe that there is sufficient evidence to suggest substantially increased European equity market participation in the future.

To put it in more simple terms, imagine if all German equity managers increase their exposure to German equities from 5% to 10%. This could cause the DAX to nearly double! Although we are not willing to set any time horizon for this phenomenon, we feel pretty confident that it will come to fruition in the long run.

A Possible Fly In The Ointment

What could prevent or at least stifle the above scenario would be any or all of the following occurrences:

- Increased inflation, flatter yield curves
- Reduced corporate restructuring either by choice or by government restriction
- A collapse of EMU of any sort (i.e., member withdrawal)
- Asset allocation restrictions to portfolios due to asset and liability matching of European assurance companies.

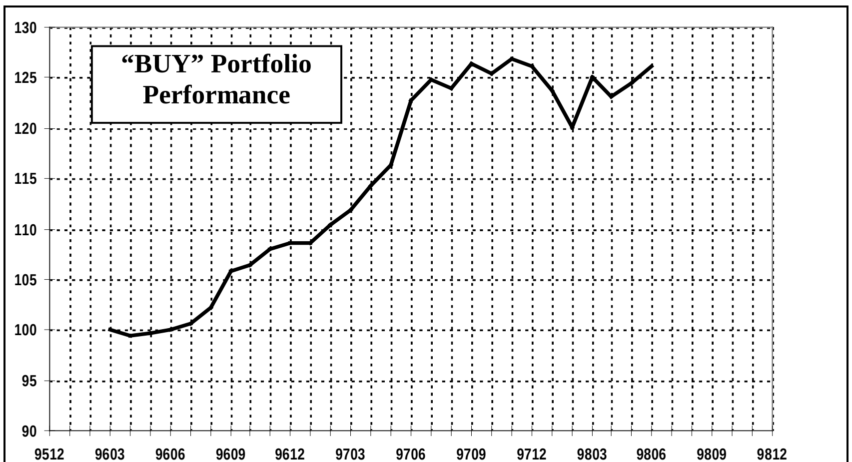
8. Implications For EMU Stock Selection

Although we may not know what is going to happen after EMU, we feel pretty strongly about what is *not* going to happen. It has been the purpose of this in-depth report to shed some light and common sense on a rather complicated set of issues. **Our ultimate goal has been to show European fund managers that after EMU, a majority of their day-to-day activities will in fact, remain largely unchanged. However there will still be a strong desire to make stock selection decisions across borders and there is hope on the horizon.**

A Viable Cross Border Stock Selection Model

Although we have believe that cross-border valuations will be nearly impossible at best and a losing proposition at worst, there are indeed methods that European fund managers may implement to add value to EMU stock selection**. Our flagship stock selection model The Merrill Lynch EPS Surprise Model ignores the differences between different accounting systems and EPS calculations. It is able to ignore these differences because it attempts to identify those stocks in *any* market that have the highest probability of an upward revision ("buy" candidate) or a downward revision ("sell" candidate) and therefore is indifferent to the raw EPS value.** The model merely measures the greatest distances from a mean value. Historically, the model has performed extremely well throughout Europe and we would expect this trend to continue as it has in the US for over nine years. For a complete explanation of the Merrill Lynch proprietary EPS Surprise models please refer to the monthly publication "*The First Quintile"*, copies available upon request.

The Merrill Lynch Positive EPS Surprise Model – Europe (ex UK)



Source: Merrill Lynch Int'l Quantitative Strategy

We would caution investors to avoid stock selection models that try to compare valuations across markets until the calculation of EPS is more uniform in these markets. Additionally, we would avoid using valuation methodologies that move up the income statement (EBITDA, EVA, Price-to-Sales) as our work indicates that these are inferiro stock selection techniques. (For futher information please refer to our *Quantitative Viewpoint* entitled "An Analysis of EVA parts 1 & 2) as well as our August 13, 1996 report dated "Analyzing Global Valuation Techniques".)

Quantitative Strategy Department

Richard Bernstein **Chief Quantitative Strategist**	**(1) 212 449-0905**
Satya Pradhuman Director, Small Cap Research	**(1) 212 449-0913**
Markus E. Barth, CFA Director, International Quantitative Strategy	**(1) 212 449-7523**
Alex Makedon Quantitative Strategist	**(1) 212 449-1071**
Kari Bayer Quantitative Strategist	**(1) 212 449-7069**