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### **Math for Europe: Lessons from Greece**

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Although equity markets rallied immediately after a political show of support for Europe, I found discussions coincident with the IMF / World Bank meetings disappointing. For instance, a senior European official noted that "markets are ridiculous" and "biased against the EU."

This represents a misdiagnosis and unfortunately a potentially missed opportunity for Europe and the rest of the world.

The overwhelming majority of financial market participants want Europe to thrive. However, the market doubts the effectiveness of the current set of government responses. A plan with credible math will likely reverse the recent slide in European financial markets. So, officials in Europe and abroad must shift from politics to math for successful resolution to the present crisis.

#### **In Favor of Math: The Case of Greece**

On June 24, we wrote "Solving the Greek Crisis" with the objective of clearly identifying practical solutions to the debt crisis and minimizing the threat of contagion.<sup>1</sup> The framework rested heavily on financial programming exercises employed during many successful Brady debt restructuring plans. Programs focused on:

- Economics – restoring growth for a long-term solution,
- Finance - identifying sustainable levels of debt and potentially needed support for banks,
- Official Institutions - highlighting available official resources to support and ensure implementation of a successful program.

Many successful economic and debt restructuring programs rested on financial programming, which force consistent and practical policies. These seemingly mundane exercises also helped anchor expectations for officials and market participants.

Over the summer, we developed a range of policy options and associated costs to solve the Greek debt crisis. The costs were manageable with the need for a 20% to 40% reduction of debt and ability to absorb a loss in the European banking system of EUR23.2 to EUR46.4 billion.

Unfortunately, delays and insufficient assessment of the challenges simply deepened the crisis. For example, our analysis at the time provided a litmus test to evaluate the proposed private sector debt relief program released one month after our original paper. On July 22, we concluded the program would flop as "a deeper approach will prove requisite for restoring growth in Greece and thwarting the risk of contagion."<sup>2</sup>

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<sup>1</sup> Goodman, Lawrence, "Solving the Greek Crisis" - Center for Financial Stability, Inc., June 24, 2011.

<sup>2</sup> Goodman, Lawrence, "Brief Thoughts on Debt Proposal for Greece" - Center for Financial Stability, Inc., July 22, 2011.



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### The Future

The crisis is now far more complex than in the summer. The number of vulnerable nations is higher and resolution costs rapidly mount with each passing day. Nonetheless, methods to help practically resolve the complications remain the same.

- We urge the formation of small teams to perform the requisite analysis to develop practical policy solutions with empirical estimates of 1) economic growth potential, 2) levels of debt reduction, 3) government bank recapitalization, and 4) European Financial Stability Facility (EFSF), European Central Bank (ECB), and International Monetary Fund (IMF) financial involvement.
- The ECB, IMF, and even major nations' Treasury departments should mobilize the "right resources" to identify and estimate the cost of practical and realistic solutions to the current market malaise in European sovereigns and financial institutions.

The "right resources" would consist of a team of 10 economists – including 3 professionals with expertise in financial programming, 1 specialist in currency regimes, 4 bank analysts, 1 expert on official sources of funding, and 1 project coordinator. This could be achieved in the private sector, yet more readily implemented by officials with perhaps more ready access to real time data and information.

- Costs should be estimated across a realistic range of scenarios stretching from reinforcement for the euro to debt reduction in select nations to debt reduction with currency exits from the euro.
- EU officials should evaluate the potential for realistic pools of funding to support financial institutions and facilitate debt restructuring.
- US officials should exercise extreme caution before approving capital increases to the IMF or similar multilateral organizations – if asked.

Lastly, many European financial markets are undervalued based on our preliminary currency and equity market valuation models. So, a practical and credible plan based on math would likely unleash a powerful market rally and potentially positive feedback between markets and economic growth. For officials, the plan could even ultimately reduce the cost of a rescue program. For market participants, short positions with respect to European risk assets will likely remain enticing until math trumps politics.

So, financial markets may be irrational at times, but they are not ridiculous. In fact, financial markets may be part of the solution to stronger and more stable sovereign credits and domestic banking systems.

*With thanks to Robin Lumsdaine and Bruce Tuckman for comments.*

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