



## “Hidden Risks from Expanding Governments”

Lawrence Goodman and Yubo Wang

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The debt crisis in Greece and waves of unprecedented public spending designed to minimize the impact of the financial crisis present new vulnerabilities for officials and market participants. Sizable government spending helped foster a "man-made" recovery in many parts of the world. However, recent public action unleashes hidden and visible risks.

Main risks and potential consequences include:

- The swell in government spending threatens to diminish long term growth potential in many nations. Our study of 37 countries reveals how enlarged government spending meaningfully dents the efficiency of investment and potential for future growth.
- In response to the financial crisis, Greece, the UK, and Spain implemented the loosest fiscal policies during the 2008-2010 period, among 37 nations evaluated. The US and Portugal are not far behind. Despite the focus on China's fiscal stimulus, the expansion was reasonably contained - representing only 5.4% of GDP during the identified period and substantially less than 24.2% in the US.
- Government spending and deficits represent a meaningful threat to international financial stability especially with mounting nervousness surrounding enlarged sovereign debt levels and transfer of the financial crisis from the private to public sector.

Based on our analysis, policy should focus on liability management and exit strategies rather than mechanisms to automatically "prime the pump" or spend during future economic slowdowns. The IMF is underestimating the risk of actively promoting the formalization of countercyclical fiscal policy or automatic mechanisms to expand spending during periods of economic weakness and contract during strength.<sup>1</sup>

Lastly, the debt crisis in Greece and market pressures in Portugal and Spain are calls to action for the US government to develop a serious long term fiscal program to help steer the economy toward stronger growth, job creation, and financial stability.

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<sup>1</sup> Strauss-Kahn, Dominique, "Economic Policy Challenges in the Post-Crisis Period" Speech at Inaugural Conference at the Institute for New Economic Thinking, Cambridge, UK April 10, 2010.

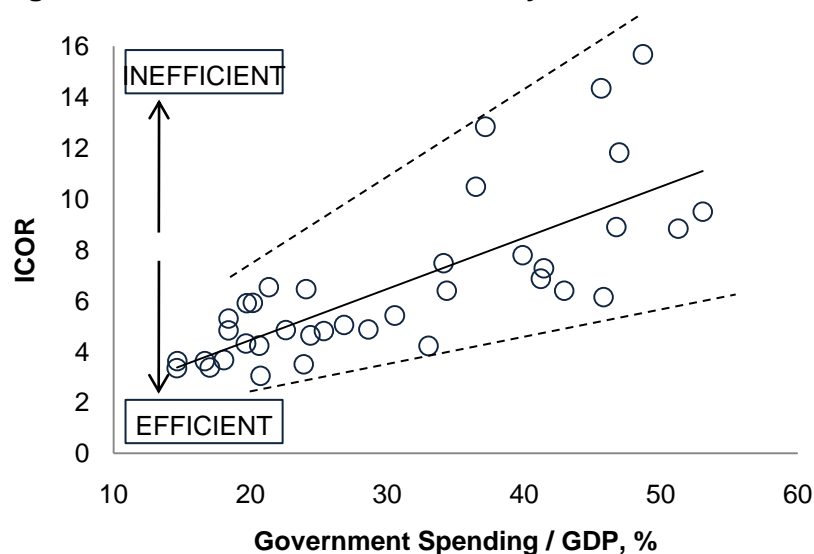


## Hidden Risks from Government Spending – Inefficiency and Slower Growth

The role of governments throughout the world has increased as one of the byproducts of the recent "man-made" economic recovery following the financial crisis. Fiscal and monetary policy is powerful. However, less efficient investment and slower growth represent the hidden risks or the unintended consequences of the dramatic expansion of economic stimulus from the public sector.

We find that an increase in government spending meaningfully dents the quality of future economic growth. We reach this conclusion via our study of a broad cross-section of 37 advanced and emerging economies over a 15-year period between 1993 and 2007. This analysis window avoids the influence of the recent financial crisis, but is long enough to retain statistical power. We assign additional weight to data between 2004 and 2007 in order to capture more recent trends. Conclusions remain the same with an un-weighted sample over the 15-year period, although the statistical relationship is marginally less robust.

**Figure 1. More Investment Inefficiency with Government Spending**



Source: Datastream, IMF and Center for Financial Stability, Inc.

Quite simply, higher government spending limits the efficiency of investment in an economy as well as its potential growth. Figure 1 reveals a positive relationship between government spending and the Incremental Capital Output Ratio (ICOR) -



defined as the GDP share of investment divided by real GDP growth.

The ICOR is an important measure of investment efficiency<sup>2</sup>, where a high value signals an **inefficient** economy. Conversely, a low ICOR represents a country that is much more **efficient** in translating investment dollars into economic growth. At the extreme, a nation with one large unproductive "white elephant" investment project leads to very limited growth. At the other end of the spectrum, a country with one investment in a dynamic and expanding sector will create jobs and growth.

The ICOR is defined as the GDP share of investment divided by real GDP growth. Intuitively, it is the investment - measured in percentage points of GDP - required to generate one percent of real economic growth.

Results from evaluation of the relationship between efficiency - as measured by ICOR - and government spending reveal:

- A general tendency for greater government spending to be associated with higher ICOR values or less efficient investment and growth capacity, as demonstrated by the positively sloped linear regression line in Figure 1.
- High levels of government spending not only thwart investment efficiency, but also introduce greater uncertainty with respect to the deterioration of investment efficiency. In other words, higher government spending also generates more variability and uncertainty in the relationship between the public sector and real economy. This is evident by noting that the range or variance of ICOR values widens in tandem with a rise in government spending. The expanding cone in Figure 1 illustrates this dynamic.

## The Plot Thickens – Big Spenders Rapidly Become Less Efficient

As governments spend more, the efficiency of the economy deteriorates at a more rapid rate. In other words, investment inefficiency tends to increase at an increasing rate with respect to government spending. Statistically the relationship between government spending and investment efficiency is exponential (see Figure 2).

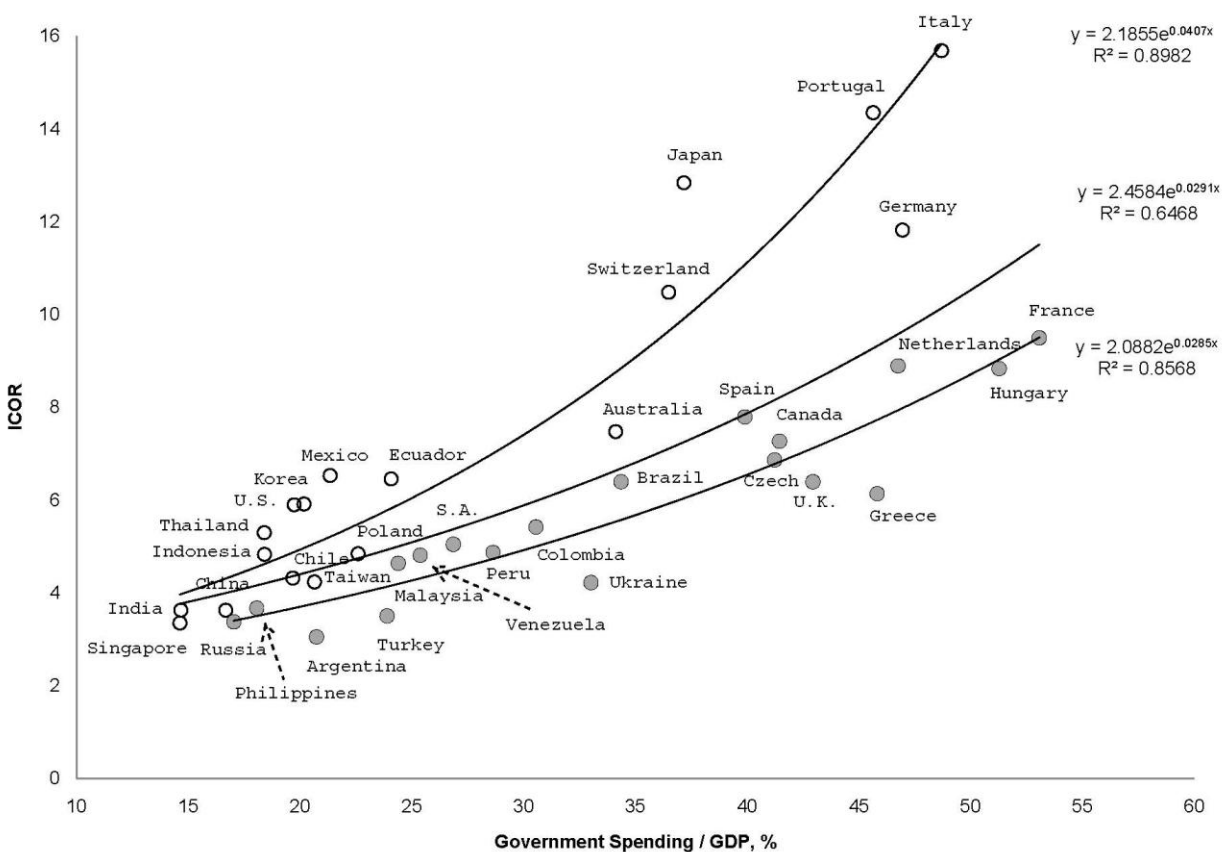
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<sup>2</sup> Incremental Capital-Output Ratio (ICOR), Statistical Manual, The World Bank, 2010.



In addition to a relationship where countries with higher government spending become less efficient by moving from the left to the right in Figure 2, those countries below the trend line enjoy more investment efficiency than those nations situated above the trend line at least for a given level of government spending as a percentage of GDP. So, countries with a set level of government spending may be more or less efficient relative to peers.

**Figure 2. Exponential Hidden Cost of Government Spending**



Source: Datastream, IMF and Center for Financial Stability, Inc.

Transition economies or those marked by substantial structural change during the time horizon studied demonstrate relatively more productivity or tend to fall below the center line in Figure 2. The Czech Republic, Hungary, and Greece tend to fall below the middle line, whereas Italy, Portugal, and Spain are in the middle toward the upper end for similar government spending levels relative to GDP.



In other words, some high spending nations such as Greece, the Czech Republic, and Hungary are relatively more efficient than counterparts such as Italy and Portugal. The differentiation is likely a function of the timing and uneven benefits associated with the entrance into the European Monetary Union. For example, a reduced cost of credit represented one of the more powerful benefits to various European nations coincident with moves toward monetary union.<sup>3</sup> The fall in the cost of credit helped promote the efficiency of investment through lower servicing costs and an uneven boost to select countries. For example, the yield on German 10-year government bonds fell by 464 basis points between September 1992 and September 2005 (the pre-Financial Crisis low). Italian and Portuguese bonds also benefited with a respective 1,082 and 990 basis point slide in yields. However, Greece was the clear beneficiary of integration with a stunning 2,020 basis point drop in the yield on 10-year bonds.

This process will now likely work in reverse, as the benefits from integration shift to the perils of economic and market constraints.

The observation of countries with more efficient investment profiles and those with less efficient investment profiles is also supported statistically. For example, the shaded and non-shaded dots in Figure 2 represent an even partition of our sample according to the slope of each dot. Intuitively, the shaded dots represent countries with relatively more efficient investment profiles at given levels of GDP share of government spending within our sample. The more efficient and less efficient clustering of countries tend to follow separate exponential trajectories (Figure 2). This bifurcation is statistically notable with an improvement in the goodness of fit from 0.65 to above 0.85 once we recognize these two separate exponentially sloped trajectories.

## **“Fiscal Space” - A Useful Metric to Evaluate Stimulus**

Recently, the IMF released a paper with the title "Rethinking Macroeconomic Policy".<sup>4</sup> Although there is much to contemplate in the paper, the authorities promote the concept of nations having "fiscal space". The concept is quite simply the capacity to expand public spending efforts - if needed. So, a country with "fiscal space" would have low

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<sup>3</sup> Jappelli, Tullio and Marco Pagano "Financial market integration under EMU" European Commission - Economic Papers 312, March 2008.

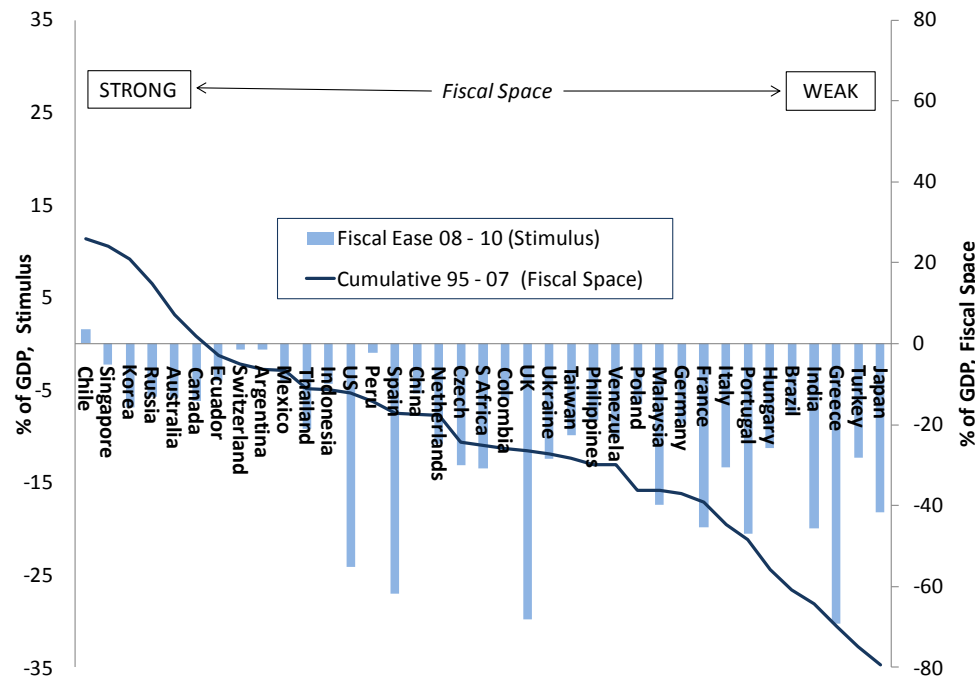
<sup>4</sup> Blanchard, Olivier, Giovanni Dell'Ariccia, and Paolo Mauro "Rethinking Macroeconomic Policy" - International Monetary Fund Research Department, February 12, 2010.





public debt and limited unfunded liabilities. This concept is helpful in evaluating recent record stimulus packages around the world.

**Figure 3. Fiscal Stimulus and Capacity to Expand**



Source: Datastream and Center for Financial Stability, Inc.

In Figure 3, we create a measure of "fiscal space" by cumulating fiscal deficits between 1995 and 2007. In the absence of high quality public debt data across a wide spectrum of nations, this approach typically serves as a proxy for the stock of public liabilities. In this case, Chile, Singapore, Korea, Russia, and Australia represent nations with a strong "fiscal space" or capacity to spend in the event of economic weakness. Conversely, Japan, Turkey, Greece, India, and Brazil represent weak nations by the same measure.

The idea of fiscal space and the pecking order identified in Figure 3 are helpful in evaluating recent stimulus packages. For example, Greece, the UK, Spain, the US, and Portugal were the countries that engaged in the largest stimulus coincident with the financial crisis or between 2008 and 2010 of 30.3%, 29.8%, 27.1%, 24.2%, and 20.6%, respectively. Of these nations, Greece and Portugal maintain the weakest capacity to expand government spending and are experiencing profound pressure in financial markets as a consequence. The UK, Spain, and the US are neither strong nor weak, so



they are certainly vulnerable to market contagion depending on the origin of the shock. In other words, the Southern European shock is more likely to impact Spain than the US.

Past episodes of contagion dating back to the Asia Crisis, where Korea and Indonesia experienced market and economic discomfort in the aftermath weakness in the Thai baht, are also consistent with the implications of this framework.

Despite the focus on China's fiscal stimulus efforts, the expansion was reasonably contained - representing only 5.4% of GDP during the identified period or substantially less than 24.2% in the US.

## **Future Policy Risks for the IMF and the US**

As noted earlier, the IMF is actively promoting "countercyclical" fiscal policy. In other words, the authorities are contemplating the promotion of creating more automatic mechanisms to expand government public spending during periods of economic weakness and halt public stimulus when economies are strong.

A detailed discussion of countercyclical policy is beyond the scope of this paper. Nonetheless, a few clear points surface.

First, the IMF should be extremely careful in too actively promoting this policy, which could readily have the unintended consequences of leading to a further expansion of public spending, deficits, and debts. Governments are typically swift to implement easier rather than more politically costly policies. The risk is high that governments around the world after receiving the sign of approval from the IMF to generate countercyclical policies will successfully implement automatic expansionary policies, yet fall short in designing counterbalancing policies designed to adhere to fiscal stability.

Second, higher public spending clearly has an unhealthy impact on the efficiency of investment and long term growth potential. This is a trap the IMF will want to avoid.

Lastly, the US government must take a longer perspective on recent fiscal stimulus to help return the economy to a higher long term potential growth rate as well as avoid potential future pressures similar to Southern Europe.



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