



14TH JACQUES POLAK ANNUAL RESEARCH CONFERENCE  
NOVEMBER 7–8, 2013

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## Currency Regimes, Capital Flows, and Crises

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Paper presented at the 14th Jacques Polak Annual Research Conference  
Hosted by the International Monetary Fund  
Washington, DC—November 7–8, 2013

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# Currency regimes, capital flows, and crises

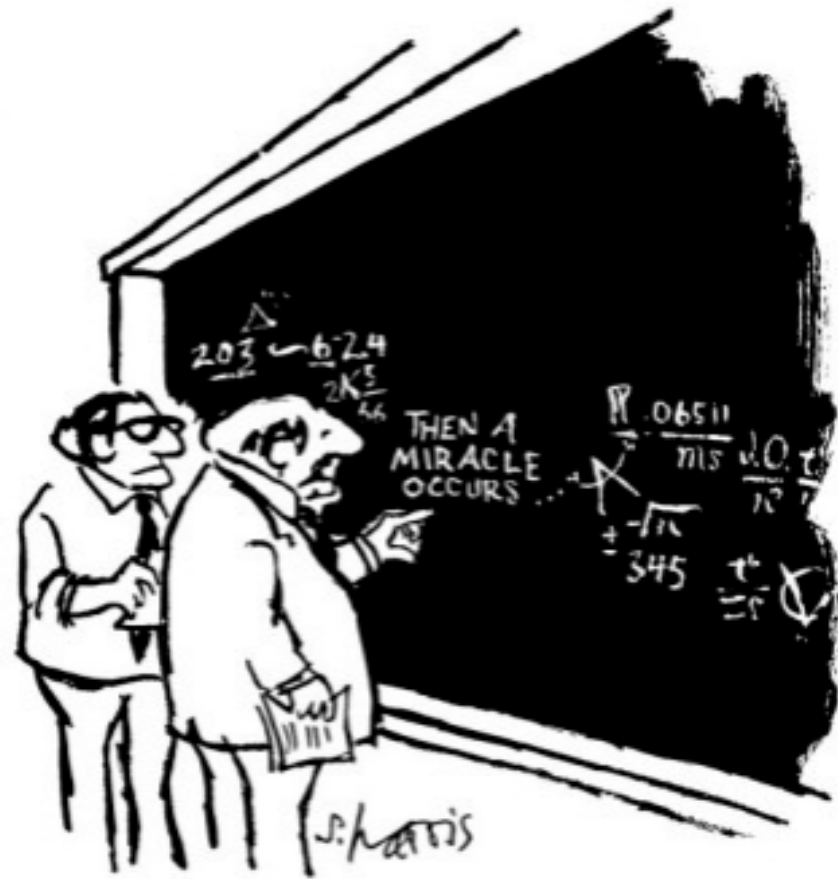
Paul Krugman

Don't be fooled by today's low interest rates. The government could very quickly discover the limits of its borrowing capacity: An urgency to rein in budget deficits seems to be gaining some traction among American lawmakers. If so, it is none too soon. Perceptions of a large U.S. borrowing capacity are misleading. Despite the surge in federal debt to the public during the past 18 months—to \$8.6 trillion from \$5.5 trillion—inflation and long-term interest rates, the typical symptoms of fiscal excess, have remained remarkably subdued. This is regrettable, because it is fostering a sense of complacency that can have dire consequences .... Fortunately, the very severity of the pending crisis and growing analogies to Greece set the stage for a serious response.

- Alan Greenspan in the Wall Street Journal, June 10, 2010

[T]his is a problem we're going to have to face up to. It may be two years, you know, maybe a little less, maybe a little more. But if our bankers over there in Asia begin to believe that we're not going to be solid on our debt, that we're not going to be able to meet our obligations, just stop and think for a minute what happens if they just stop buying our debt.

- Erskine Bowles, co-chairman of President Obama's debt commission, in testimony to the Senate Budget Committee, March 8, 2011



**"I think you should be more explicit here in step two."**

Figure 1: Debt and interest rates



Figure 2: Debt and interest rates, by currency

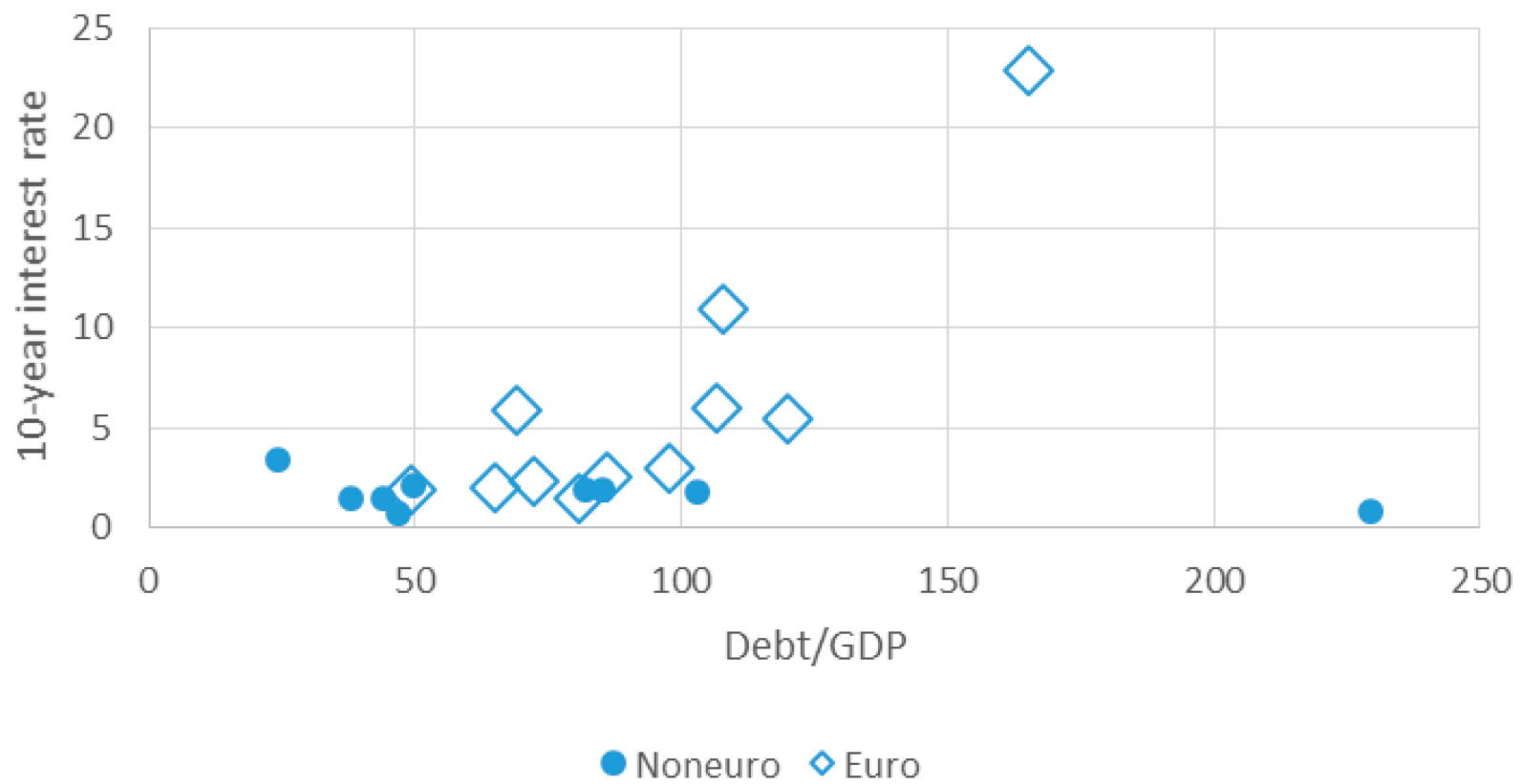


Figure 3: Spreads against Germany

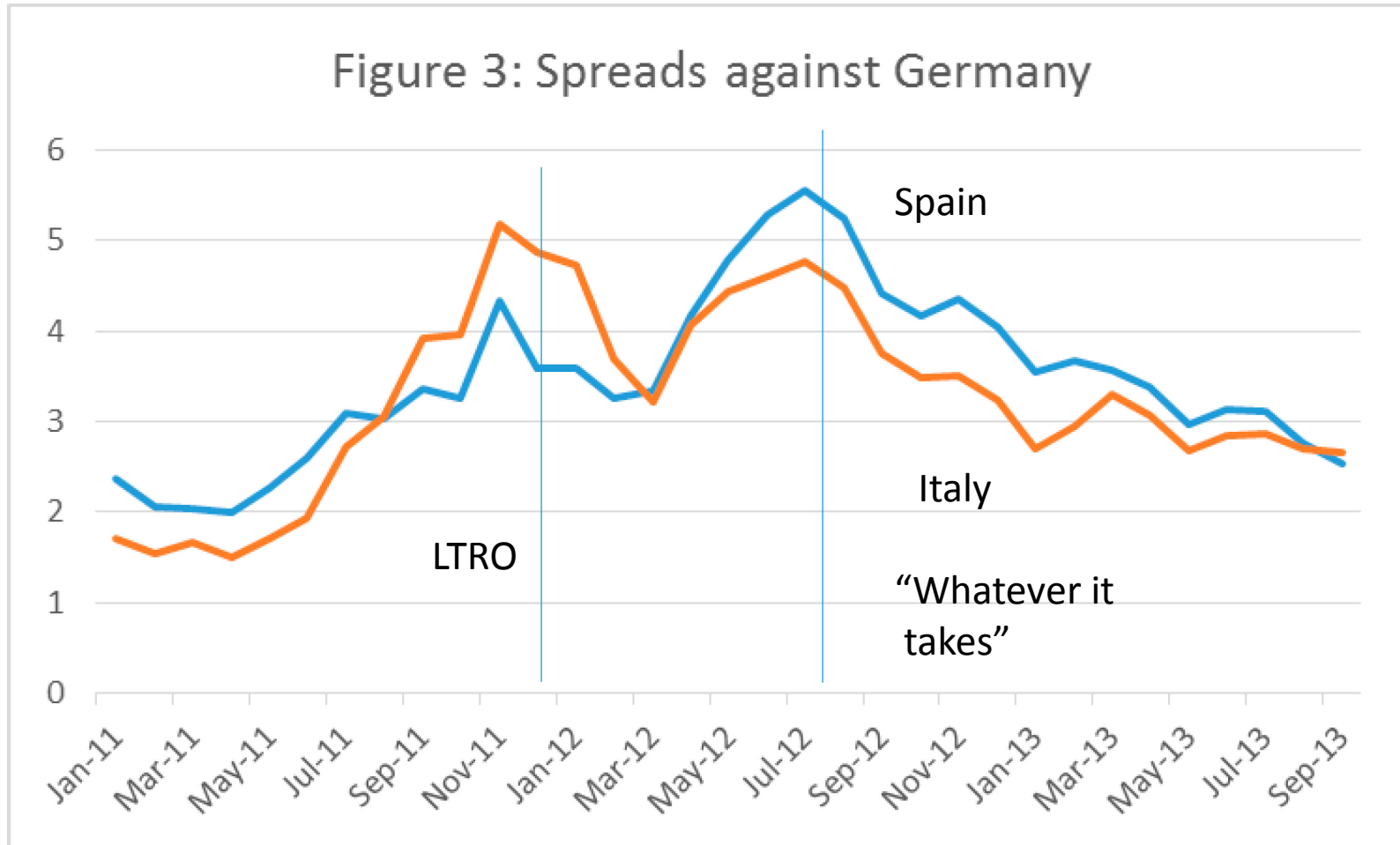


Figure 4: Spreads against Germany

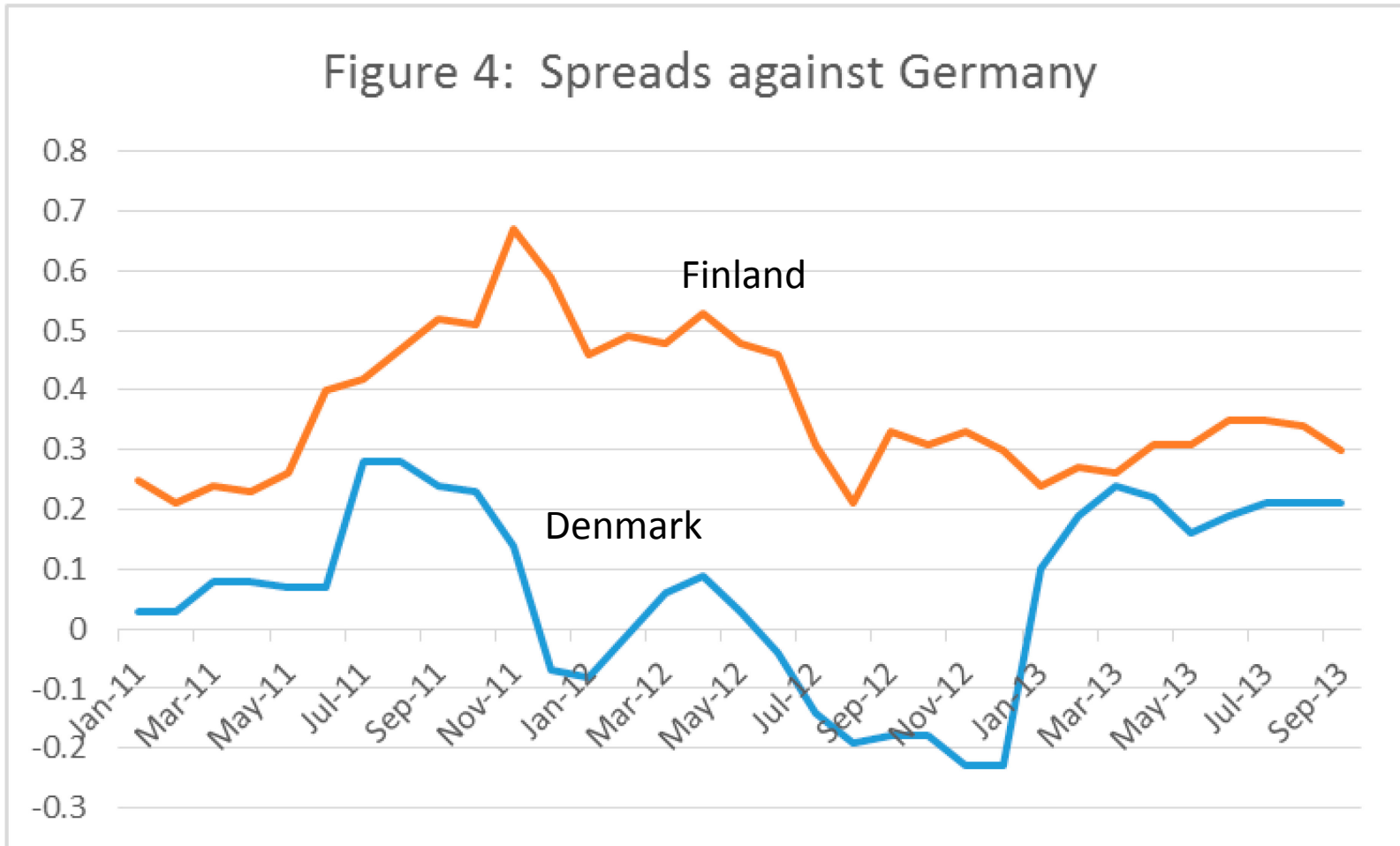
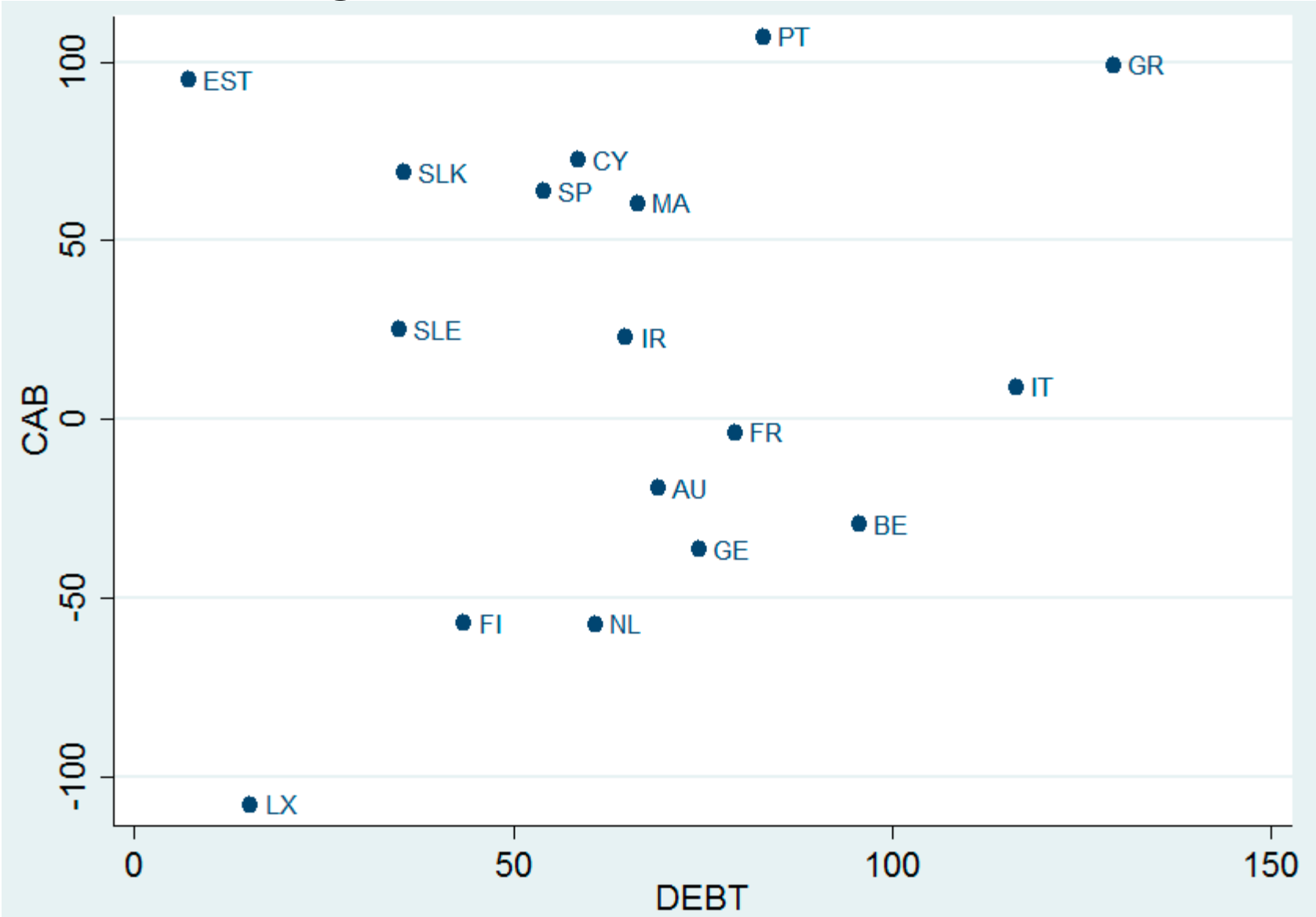




Figure 5



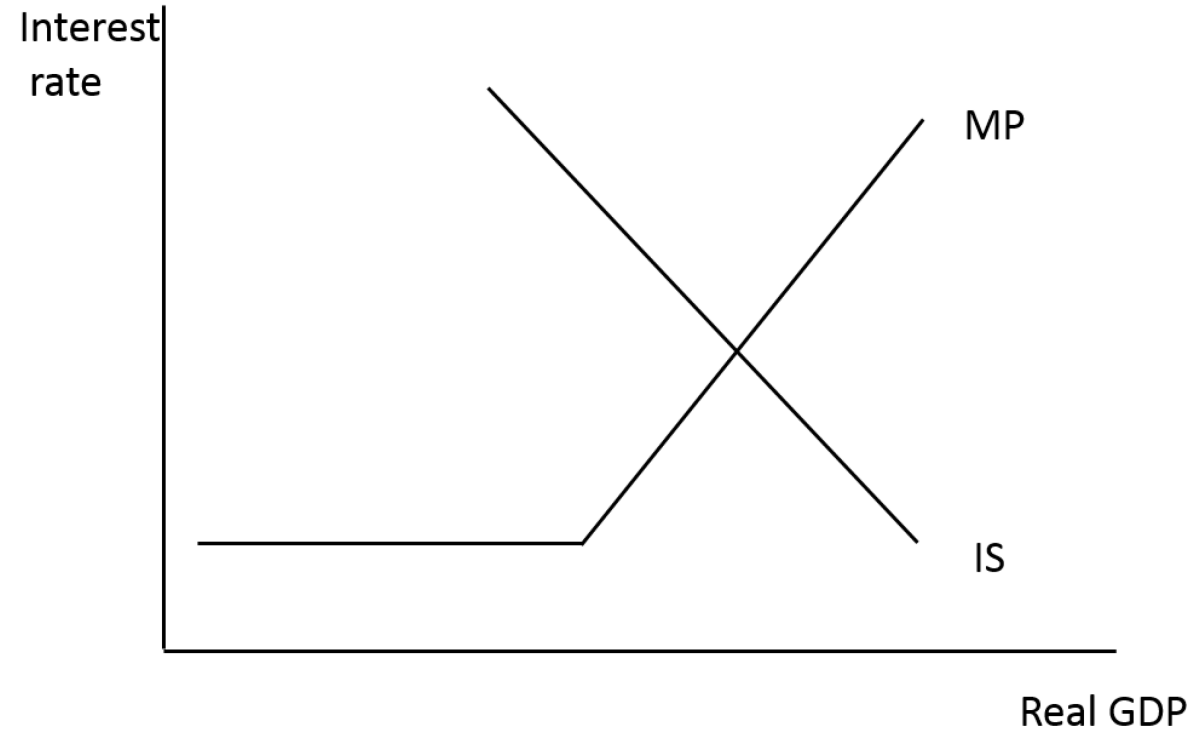
# Modeling sudden stops I: IS-MP analysis

(1)  $y = A(r) + NX(y, e)$

(2)  $K(\underline{r}, e) + NX(\underline{y}, e) = 0$

(3)  $r = \text{Max}[0, T(\underline{y}, e)]$

Figure 6



Greece: Annual rate of growth in M1

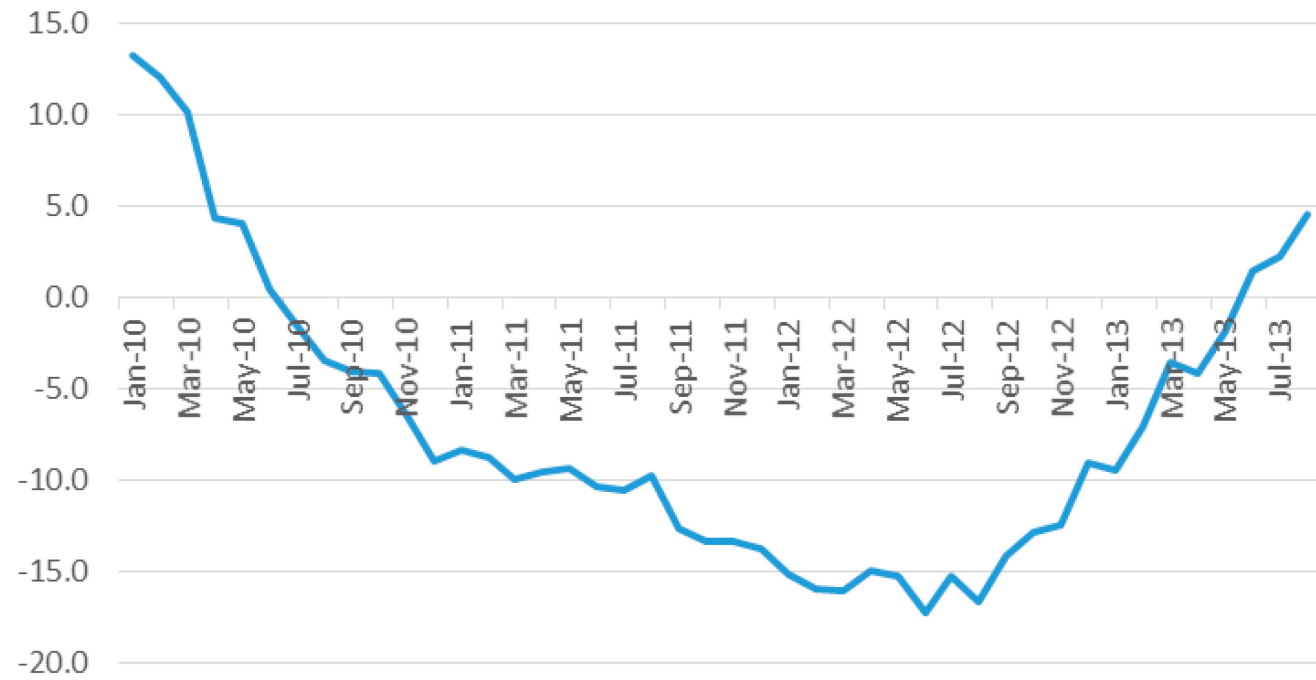


Figure 8

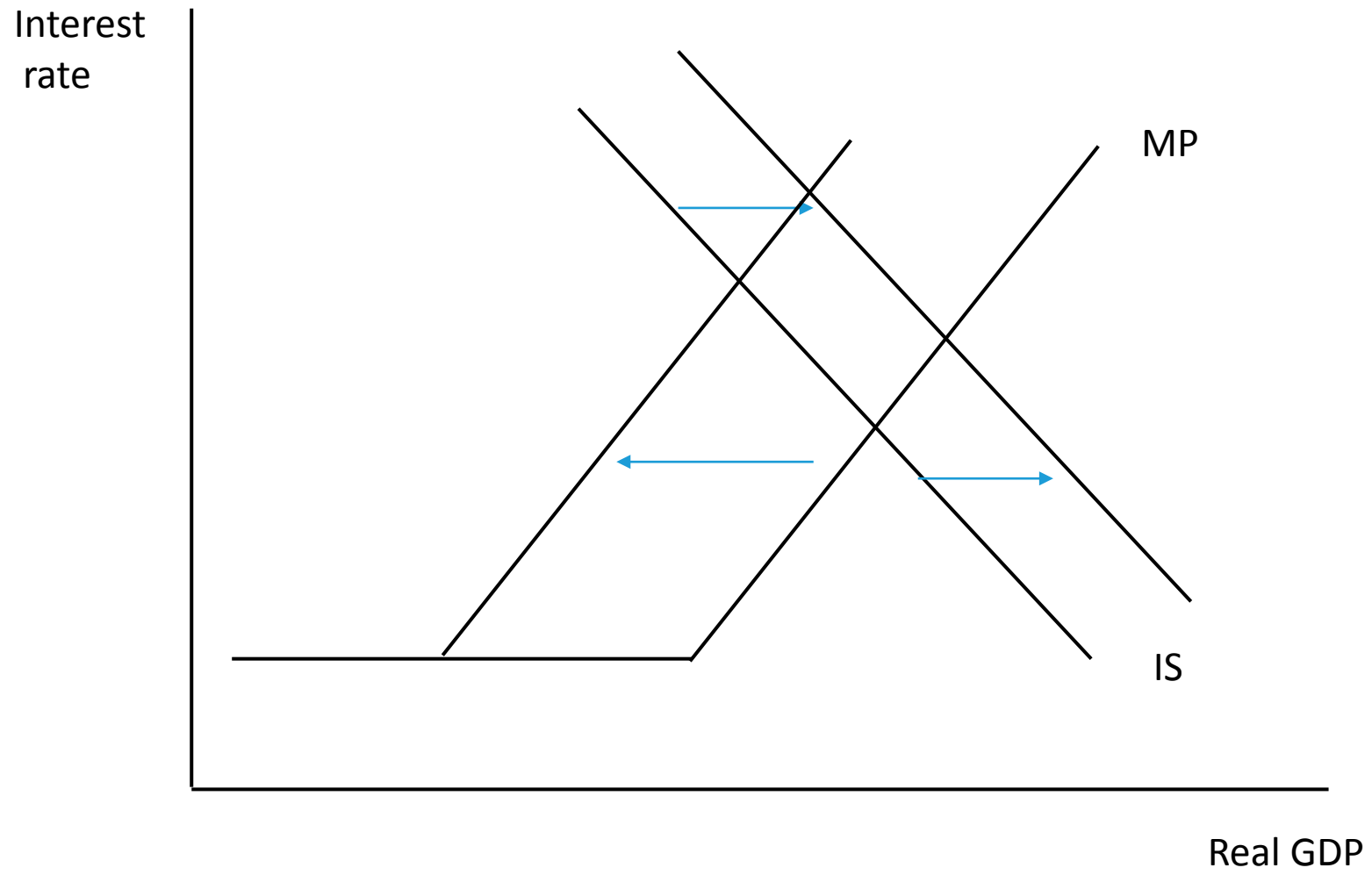
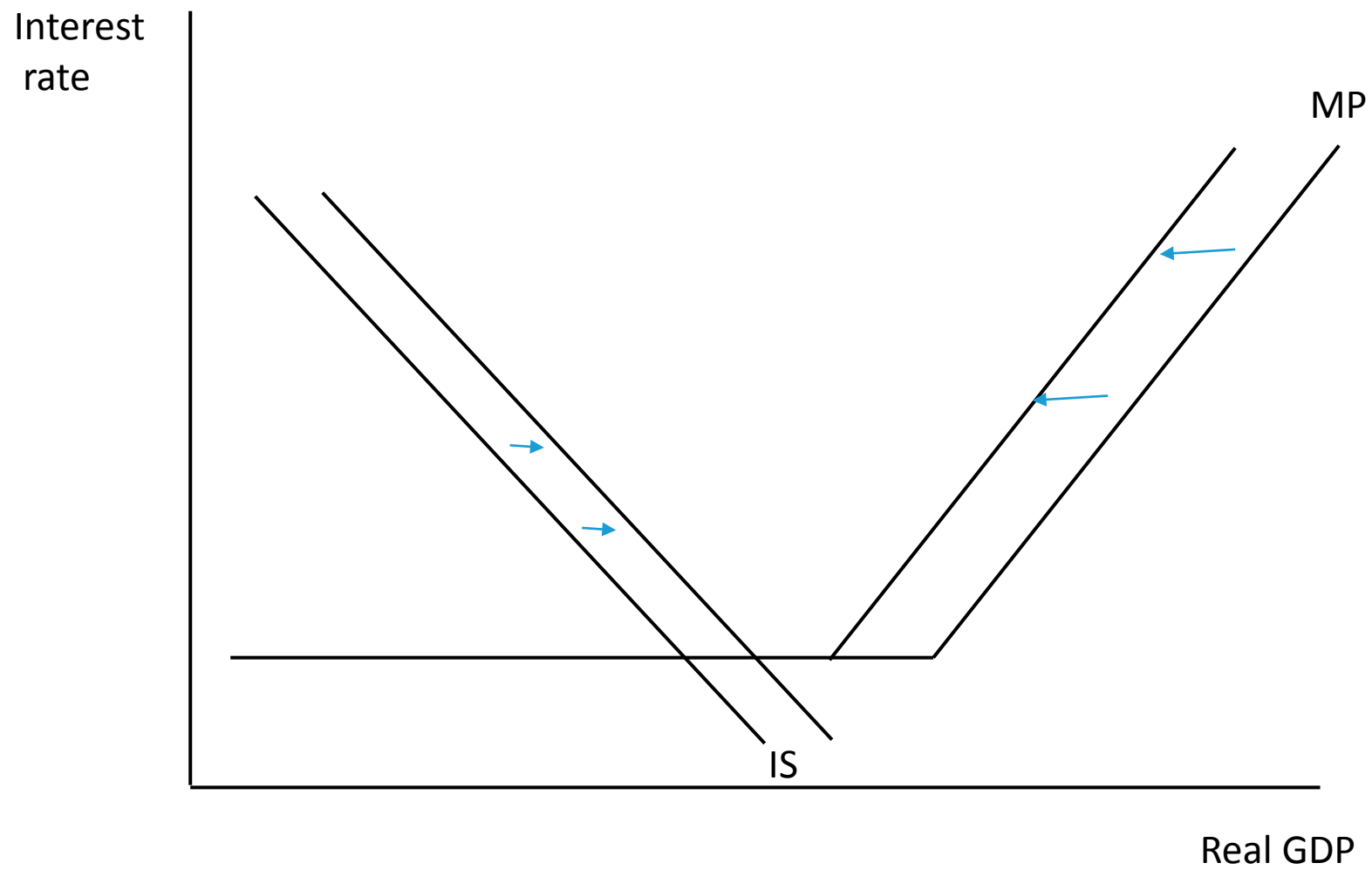


Figure 9



Miniature New Keynesian model:

$$U = \sum_{t=1}^{\infty} \ln(C_t) (1 + \delta)^{-t}$$

where  $\delta$  is the rate of time preference, and

$$C = C_H^{(1-\mu)} C_M^{\mu}$$

Add borrowing constraint, assumed to be binding;  
sudden stop takes form of unexpected inward shift  
of this constraint.

The model boils down to:

1. Steady state – kind of tedious, affected by short-run events
2. Current account condition
3. Euler conditions on consumption of imports and home good

Capital account + Current account = 0

$$\text{Net exports} = A \frac{P^*}{EP} - \overline{IM} \frac{1 + \delta}{1 + r}$$

Floating rate  
adjustment here



Fixed rate adjustment  
here





Possible channels to reverse this result:

1. Long-term versus short-term interest rates
2. Banking crisis
3. Foreign currency debt
4. Inflation

## About long-term bonds ...

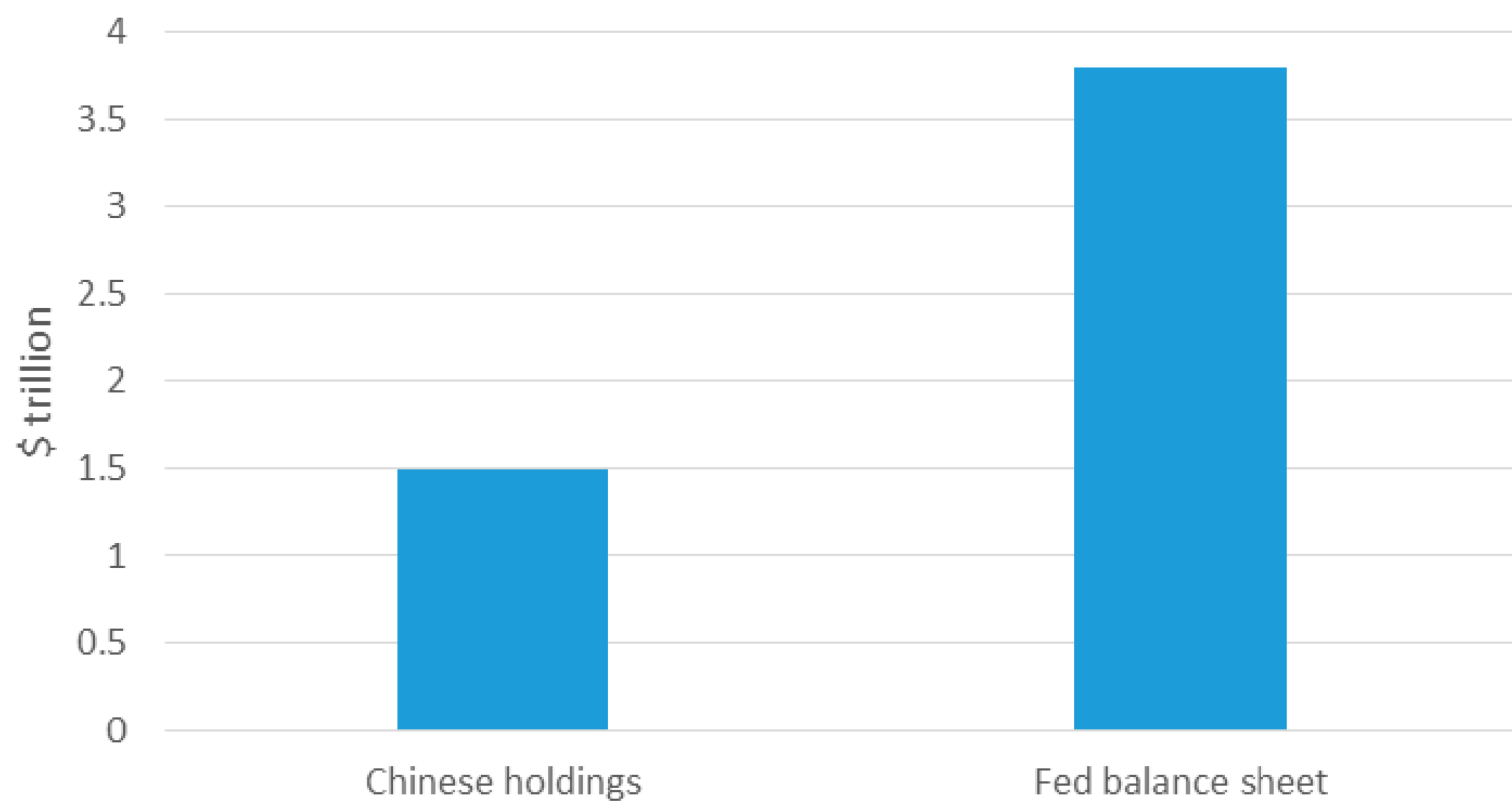


Figure 10

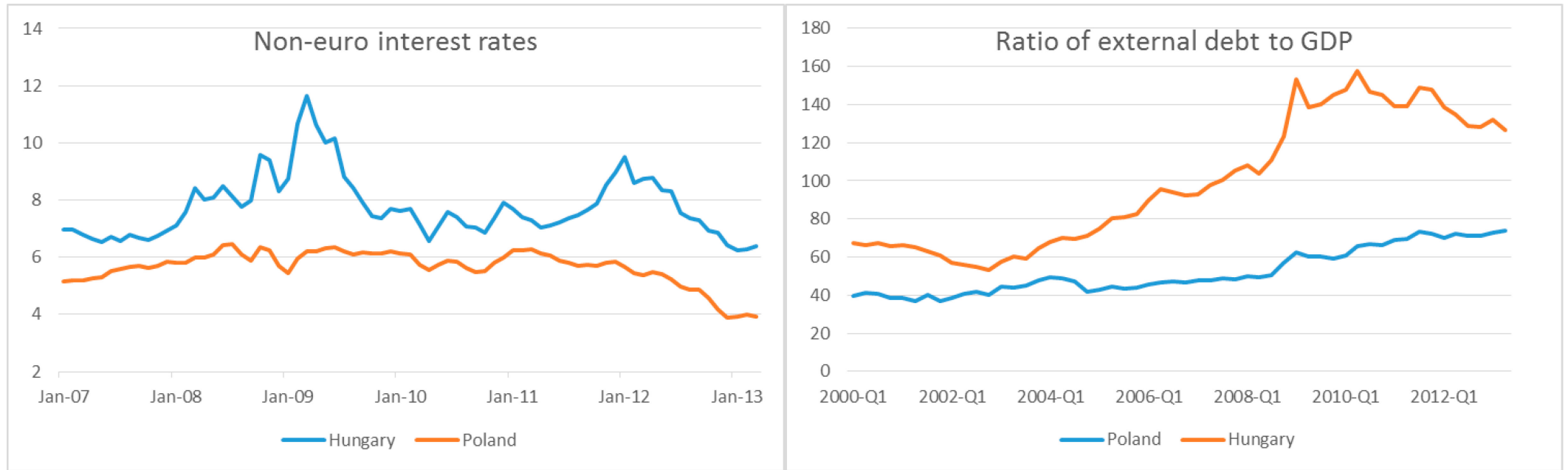


Figure 11

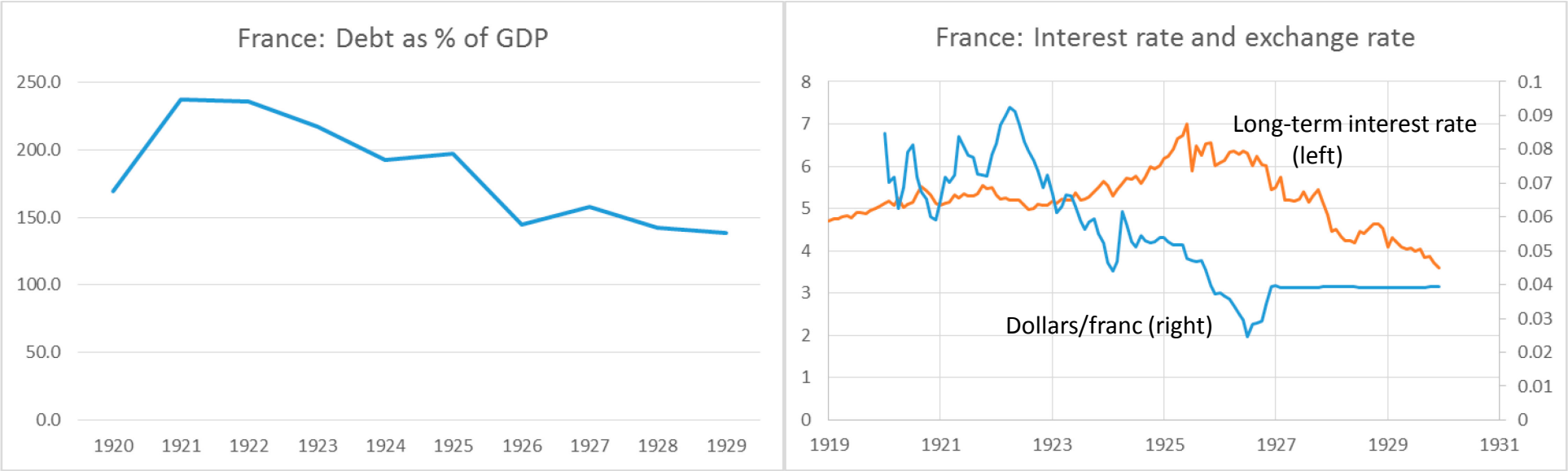


Figure 12

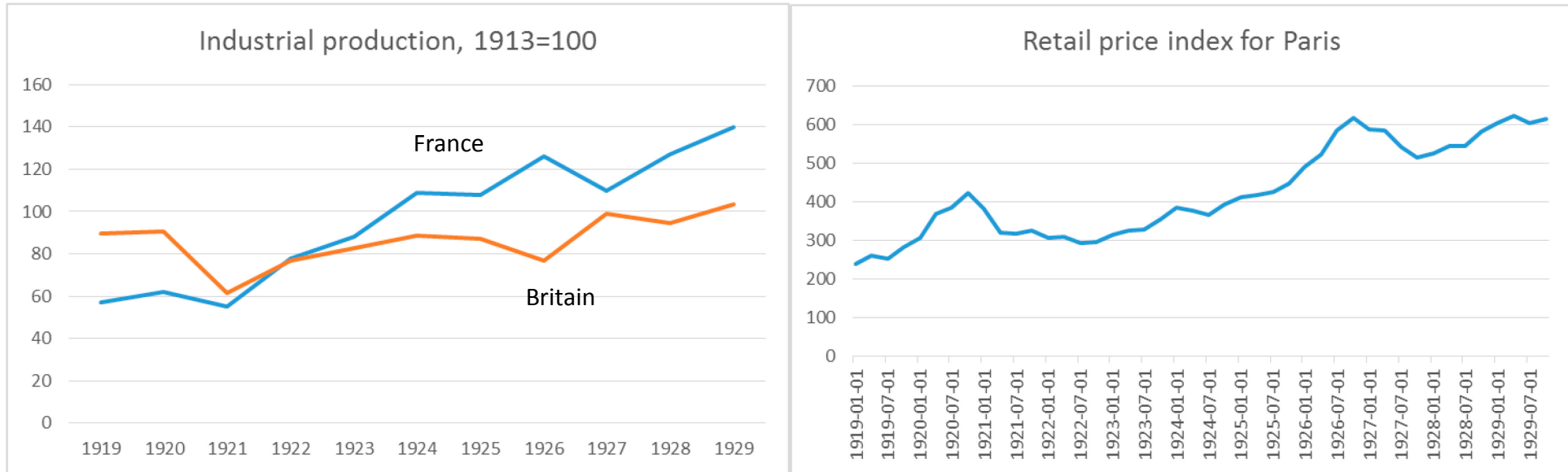
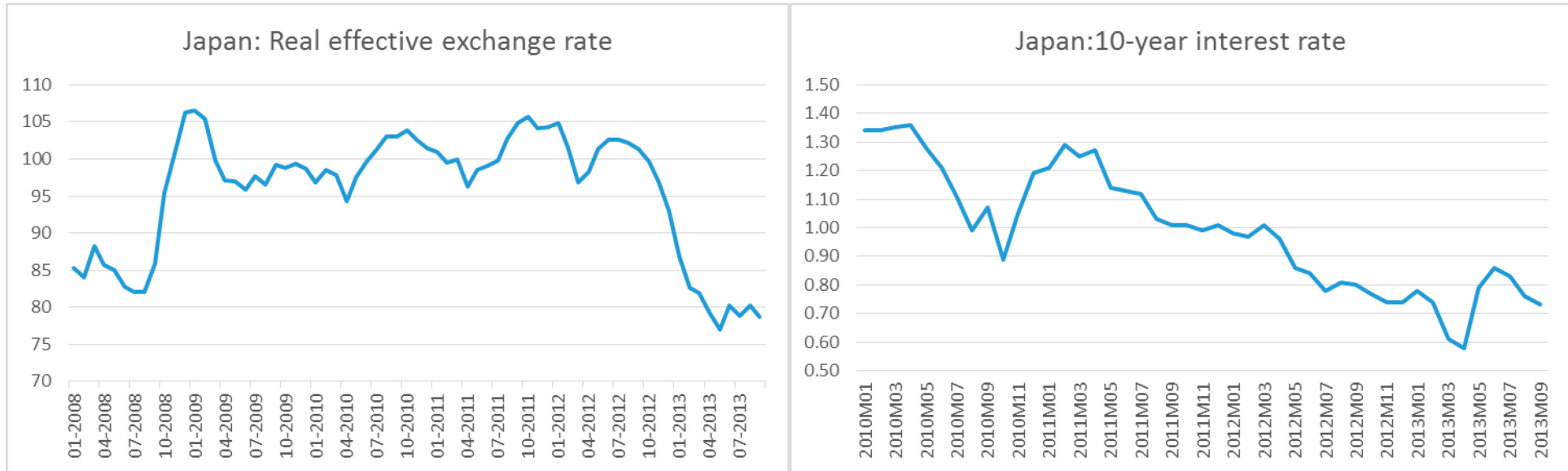


Figure 13



The confidence gnomes:

1. Loss of confidence

2. ??????

3. Greece!

Still waiting for an explanation of step 2