

The Case for Global Fiscal Stimulus

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Basic Conclusions

1. No such thing as a simple fiscal multiplier! The response of the economy to discretionary fiscal stimulus depends on a number of factors.
2. The model simulations based on the Global Integrated Monetary Fiscal Model (GIMF) suggests that the G20 stimulus will have important effects on global GDP. Without this stimulus, the model suggests that global GDP would be significantly weaker in 2009 and 2010. Same conclusions when we look at other structural models from the Fed, ECB, EC, OECD, and Bank of Canada.

Strengths of GIMF

- OLG set up means that increases in government debt will have permanent effects on net foreign liabilities and real interest rates
- Large menu of fiscal instruments
- Can study fiscal and monetary policy issues in the same model; good for short-run and long-term analysis which is essential for understanding fiscal issues

Table 1: Long-Term Crowding Out Effects of Higher Government Debt

(10 percentage point increase Government Debt Ratios)

	Increase in All Countries	Increase in the United States
<u>Effects on:</u>		
World:		
GDP	-1.3	-0.6
Consumption	-1.0	-0.5
Investment	-3.6	-1.4
Real Interest Rates	0.39	0.14
United States:		
GDP	-1.2	-0.5
Consumption	-0.9	-0.5
Investment	-3.5	-1.3
Real Interest Rates	0.39	0.14
Rest of the World		
GDP	-1.3	-0.6
Consumption	-1.1	-0.5
Investment	-3.6	-1.4
Real Interest Rates	0.39	0.14

Multipliers from Temporary Changes in Fiscal Instruments

- The change in the fiscal instrument is calibrated to generate a change in expenditures or revenues equal to 1% of baseline GDP in year 1 and 0.5% in year 2.
- The multiplier is measured simply in terms of real GDP as a percent deviation from the baseline.
- It is assumed there is a coordinated global monetary policy response. Monetary policy is determined by an interest rate reaction function, where interest rates are allowed to either adjust freely, or are held fixed for two years.

Why is it Critical to Examine the Multipliers under Monetary Accommodation?

- Timely fiscal expansions are critical when there are risks of deflation and the policy rate is at the zero interest rate floor.
- In a situation where fiscal stimulus is designed to help exit from a recession, fiscal multipliers should be expected to be larger than during periods when monetary and fiscal policies are working at cross purposes and central banks are raising interest rates to offset the expansionary and inflationary implications of a fiscal expansion.

The Seven Fiscal Instruments

1. increase in government consumption.
2. increase in government investment.
3. increase in general lumpsum transfers.
4. increase in transfers targeted to hand-to-mouth consumers.
5. decrease in labour tax revenue collection.

6. decrease in consumption tax revenue collection.

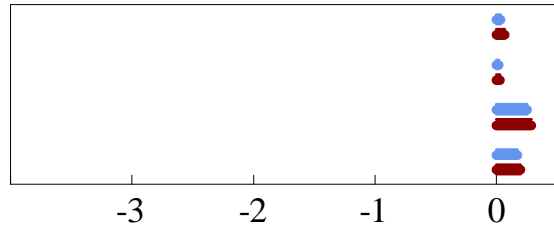
7. decrease in corporate income tax revenue collection.

Figure 1: Effects of Global Fiscal Stimulus: World

— First Year Effects — Second Year Effects

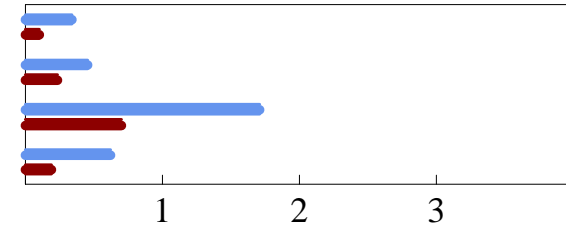
Without Monetary Accomodation

Real Interest Rate
(Percentage point deviation from control)



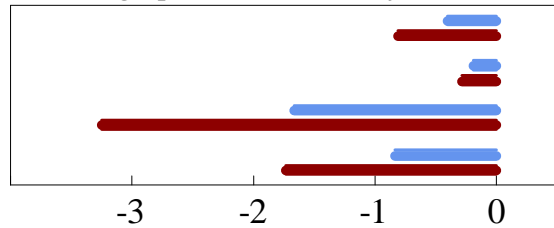
Lump Sum Transfers
Labor Income Taxes
Government Investment
Targeted Transfers

GDP
(Percent deviation from control)



With Monetary Accomodation

Real Interest Rate
(Percentage point deviation from control)



Lump Sum Transfers
Labor Income Taxes
Government Investment
Targeted Transfers

GDP
(Percent deviation from control)

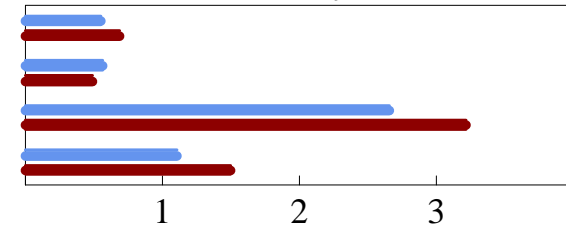


Figure 2: Effects of Global Fiscal Stimulus: United States

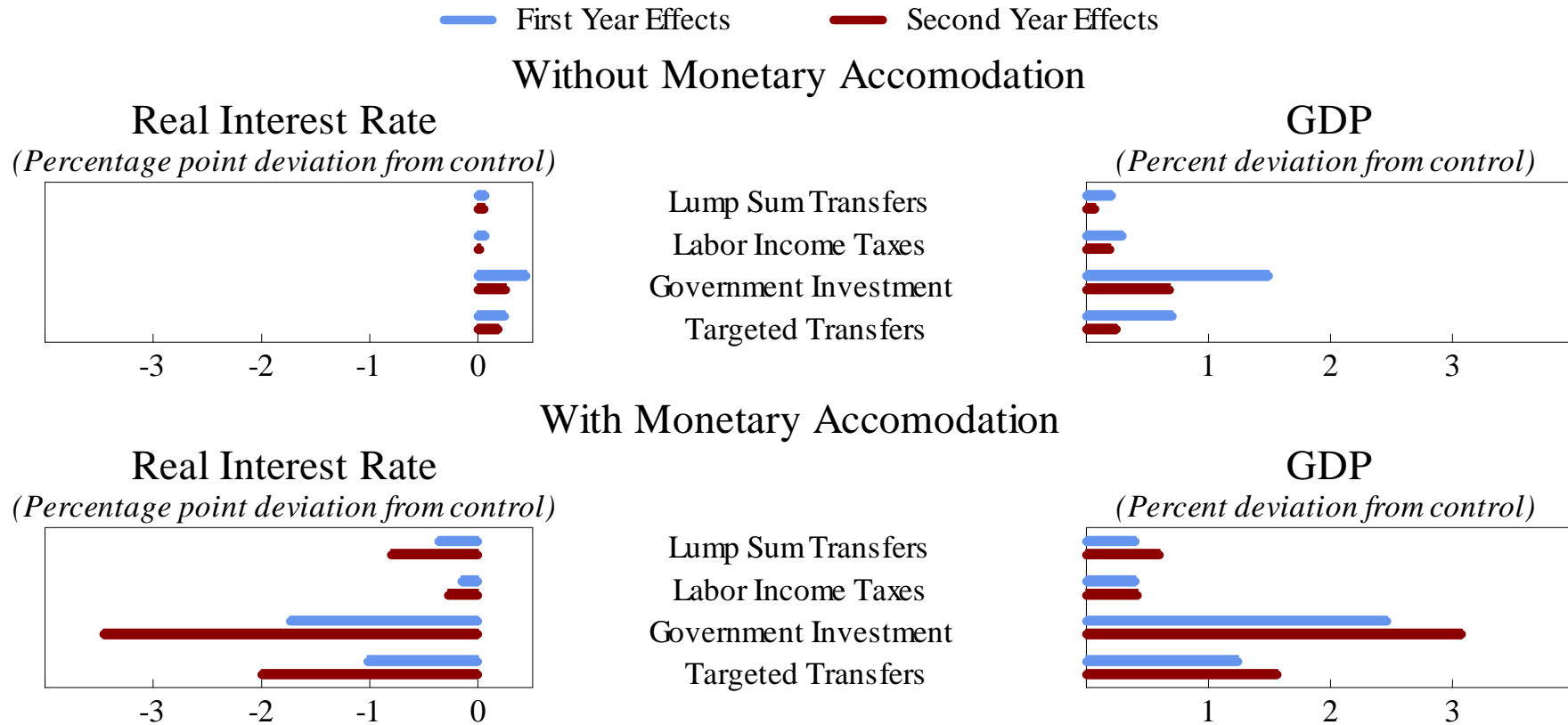


Figure 3: Effects of Global Fiscal Stimulus: Euro Area

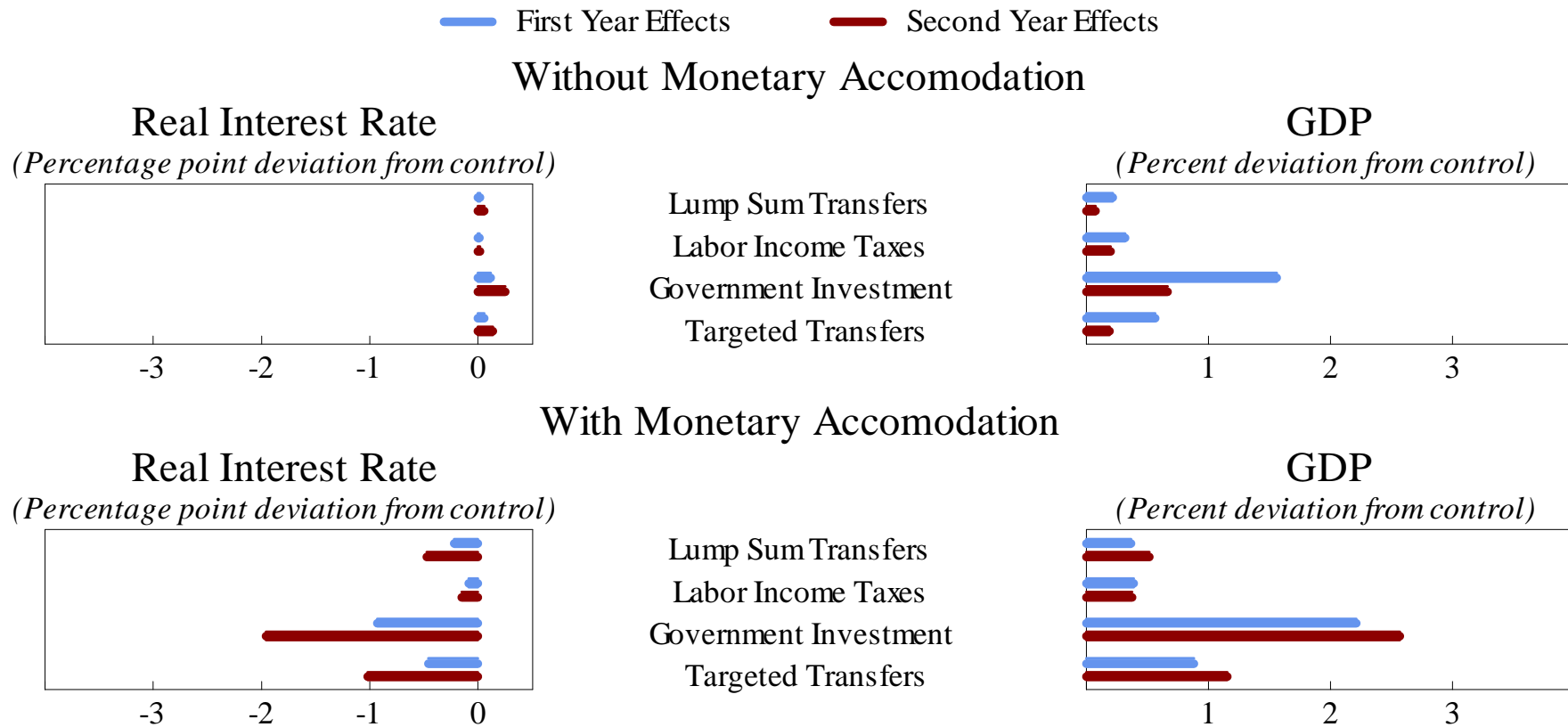


Figure 4: Effects of Global Fiscal Stimulus: Japan

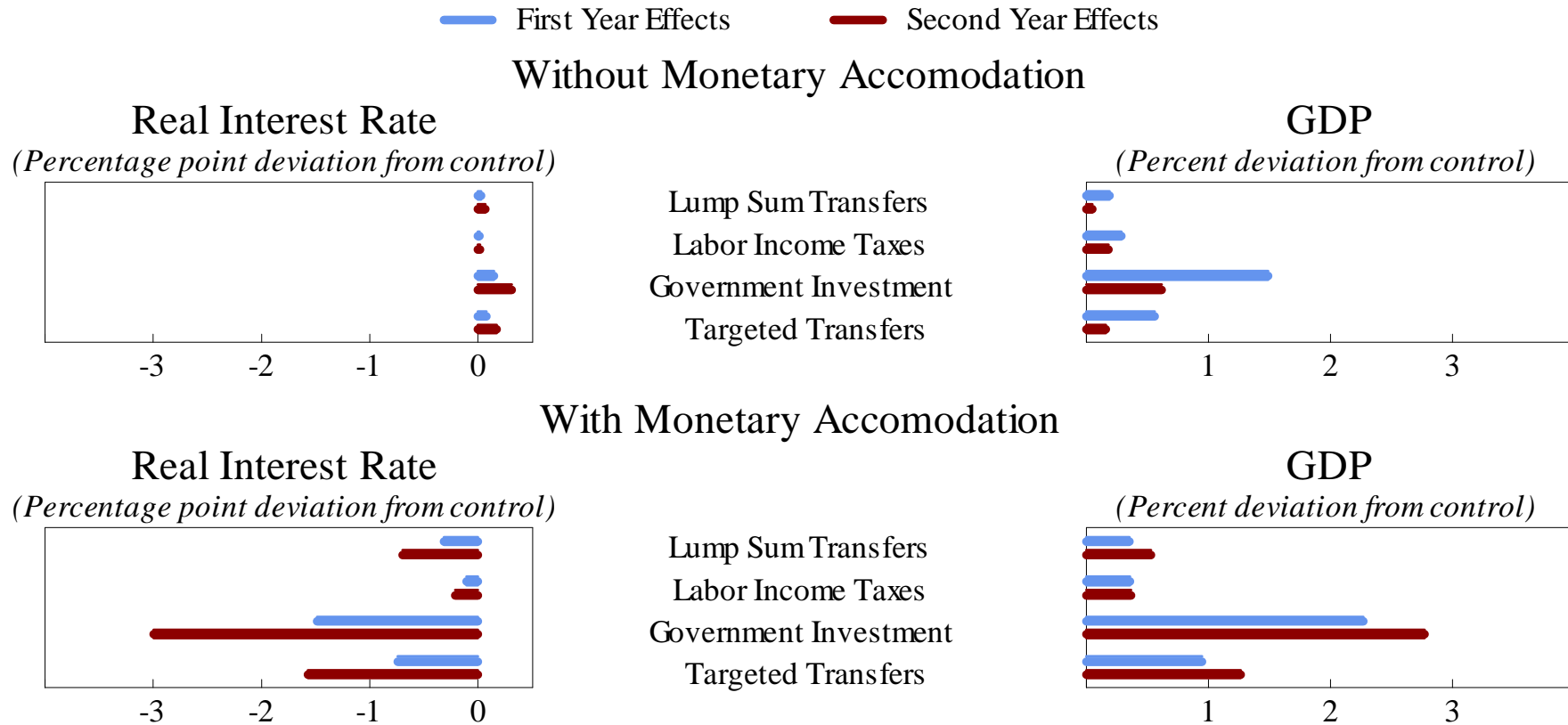


Figure 5: Effects of Global Fiscal Stimulus: Emerging Asia

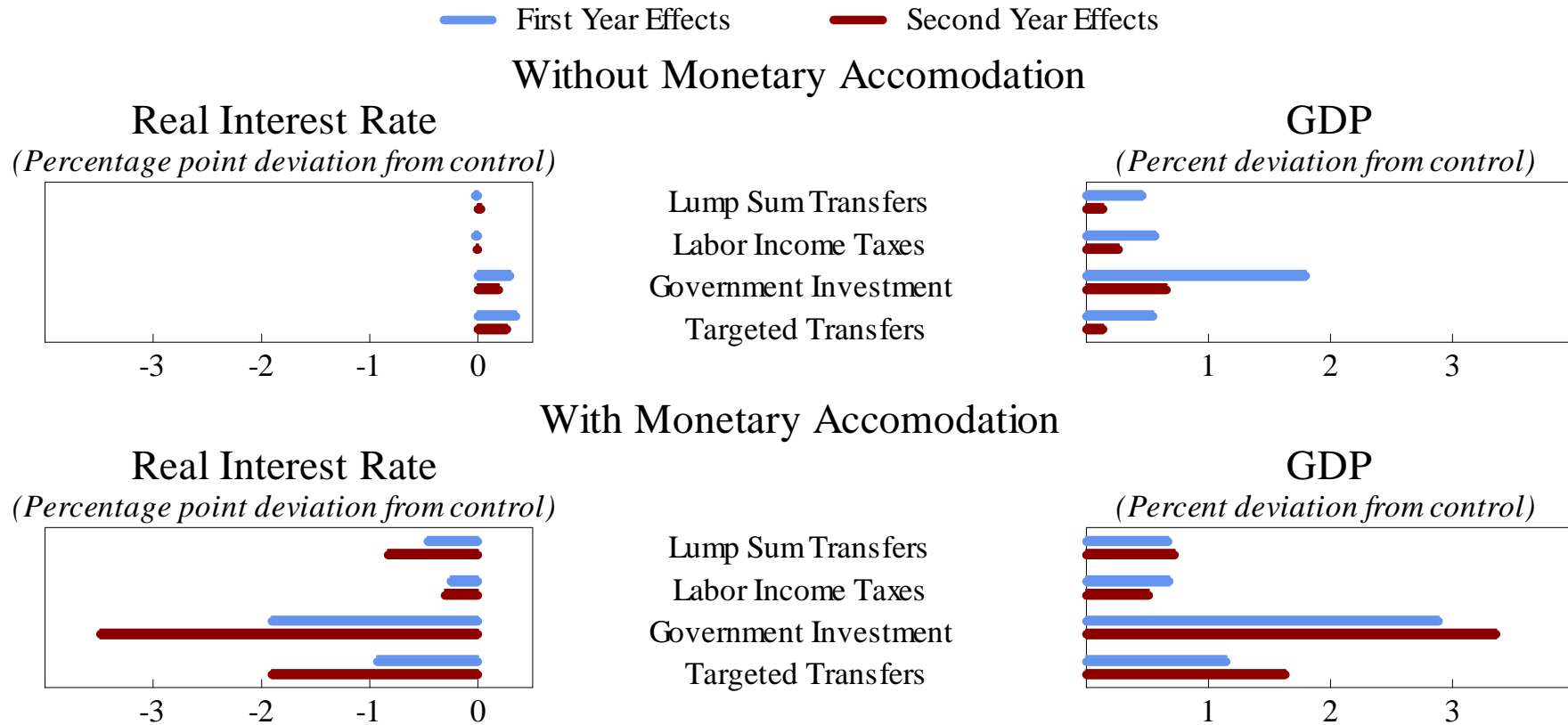


Figure 6: Effects of Global Fiscal Stimulus: Remaining Countries

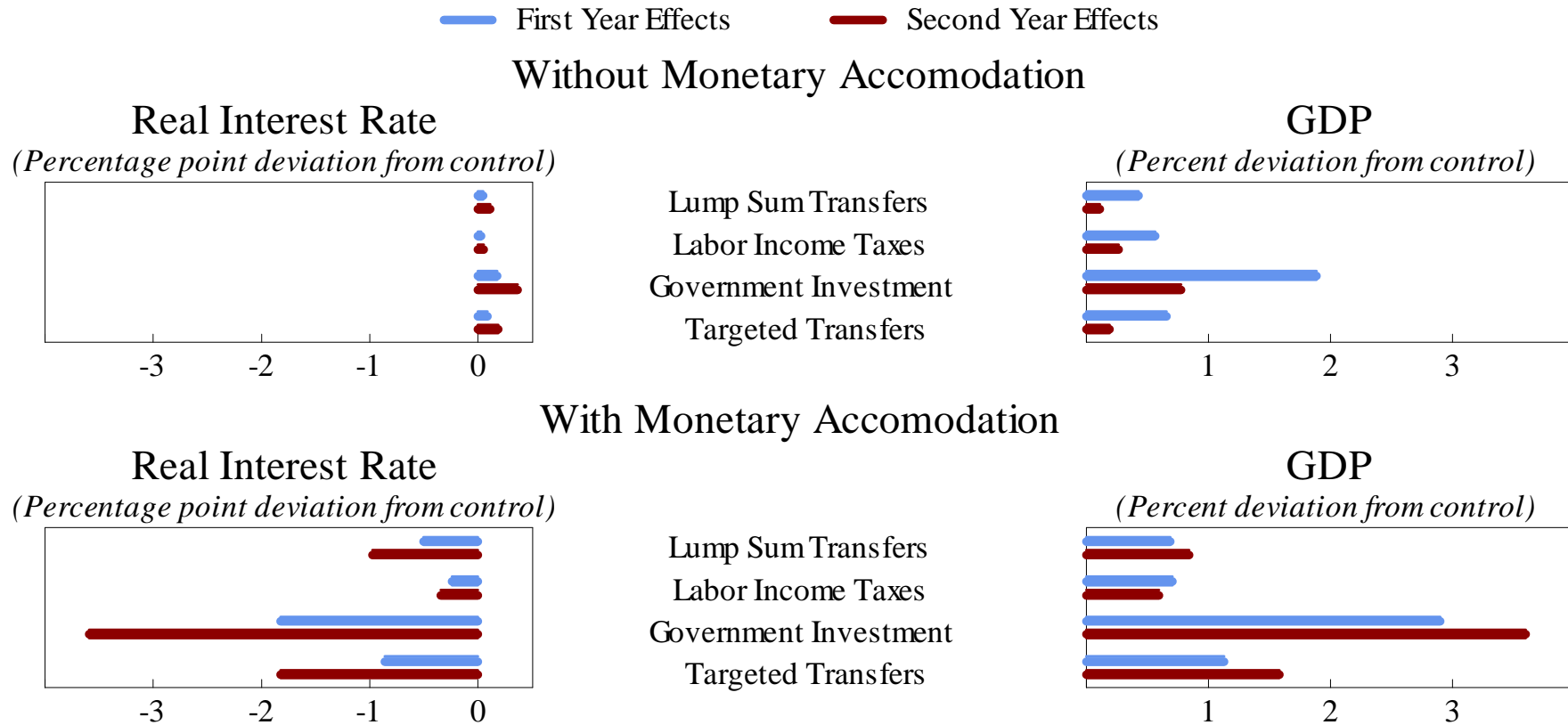


Figure 7: Fiscal Multipliers When Market Participants Expect Permanent Higher Deficits (Deviation from Baseline)

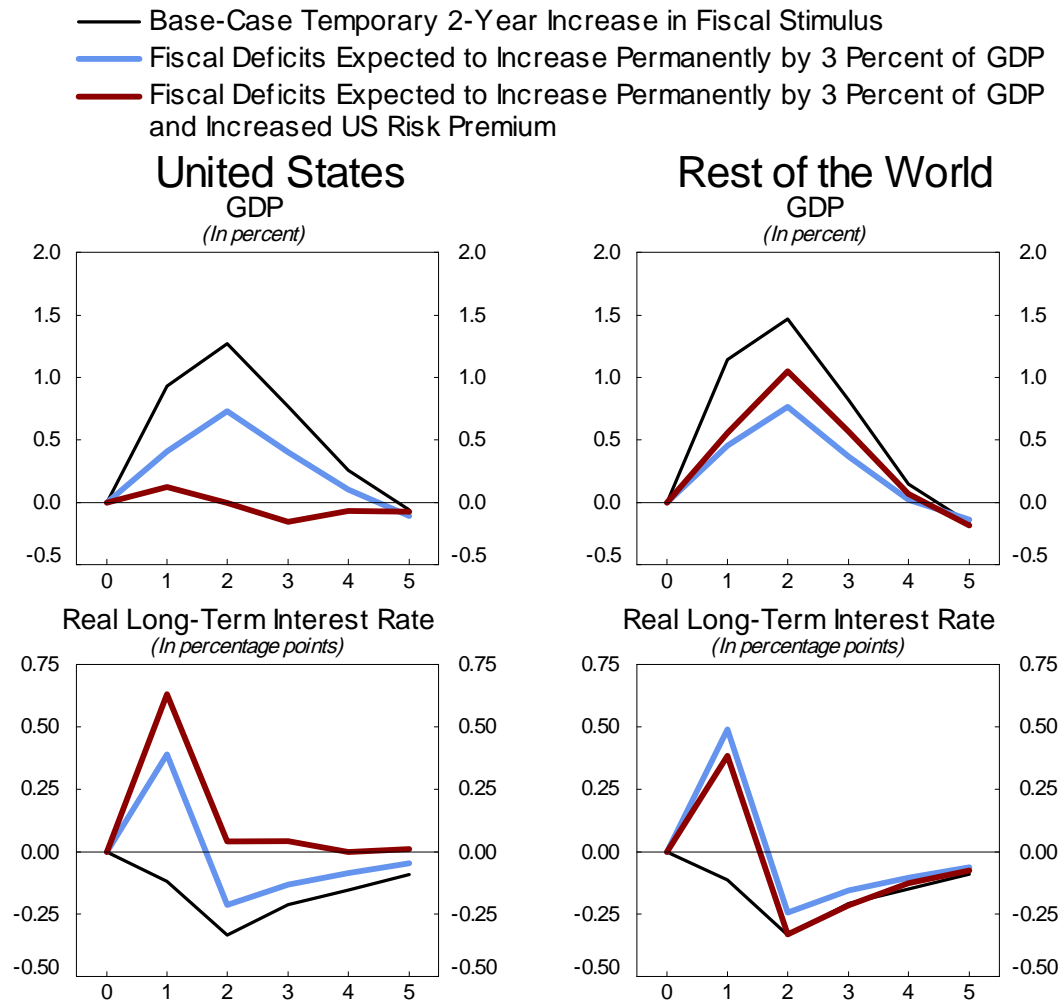


Table 2: Fiscal Stimulus Packages Announced for 2009–2010 (As of August, 2009)

	2009	2010	2009+2010
United States (US)	2.0	1.8	3.7
Euro Area (EU)	0.8	0.7	1.6
Japan (JA)	2.4	1.8	4.2
Asia excluding Japan (AS)	2.2	2.0	4.2
Rest of G-20 (RC)	1.0	0.5	1.5
World Total (PPP-weighted)	1.5	1.2	2.7

Table 3: Growth Effects of Fiscal Stimulus in 2009 and 2010

	Stimulus in:					
	All	U.S.	Euro Area	Japan	Em. Asia	RoW
Effects on Growth in 2009						
World	1.7	0.4	0.2	0.2	0.7	0.4
United States	1.3	0.9	0.0	0.1	0.2	0.2
Euro Area	1.1	0.1	0.5	0.0	0.2	0.2
Japan	1.5	0.1	0.0	1.0	0.3	0.1
Emerging Asia	2.9	0.3	0.1	0.1	2.2	0.2
Remaining Countries	1.6	0.2	0.1	0.1	0.3	0.8
Effects on Growth in 2010						
World	0.7	0.4	0.0	0.1	0.0	0.1
United States	0.9	0.5	0.1	0.1	0.1	0.1
Euro Area	0.5	0.3	-0.1	0.1	0.1	0.1
Japan	1.0	0.3	0.1	0.4	0.1	0.1
Emerging Asia	0.5	0.6	0.0	0.1	-0.3	0.1
Remaining Countries	0.6	0.4	0.1	0.1	0.2	-0.0

Figure 8: World Economic Outlook Global Growth Projections, April 2009 (With and Without Estimated G-20 Fiscal Stimulus)

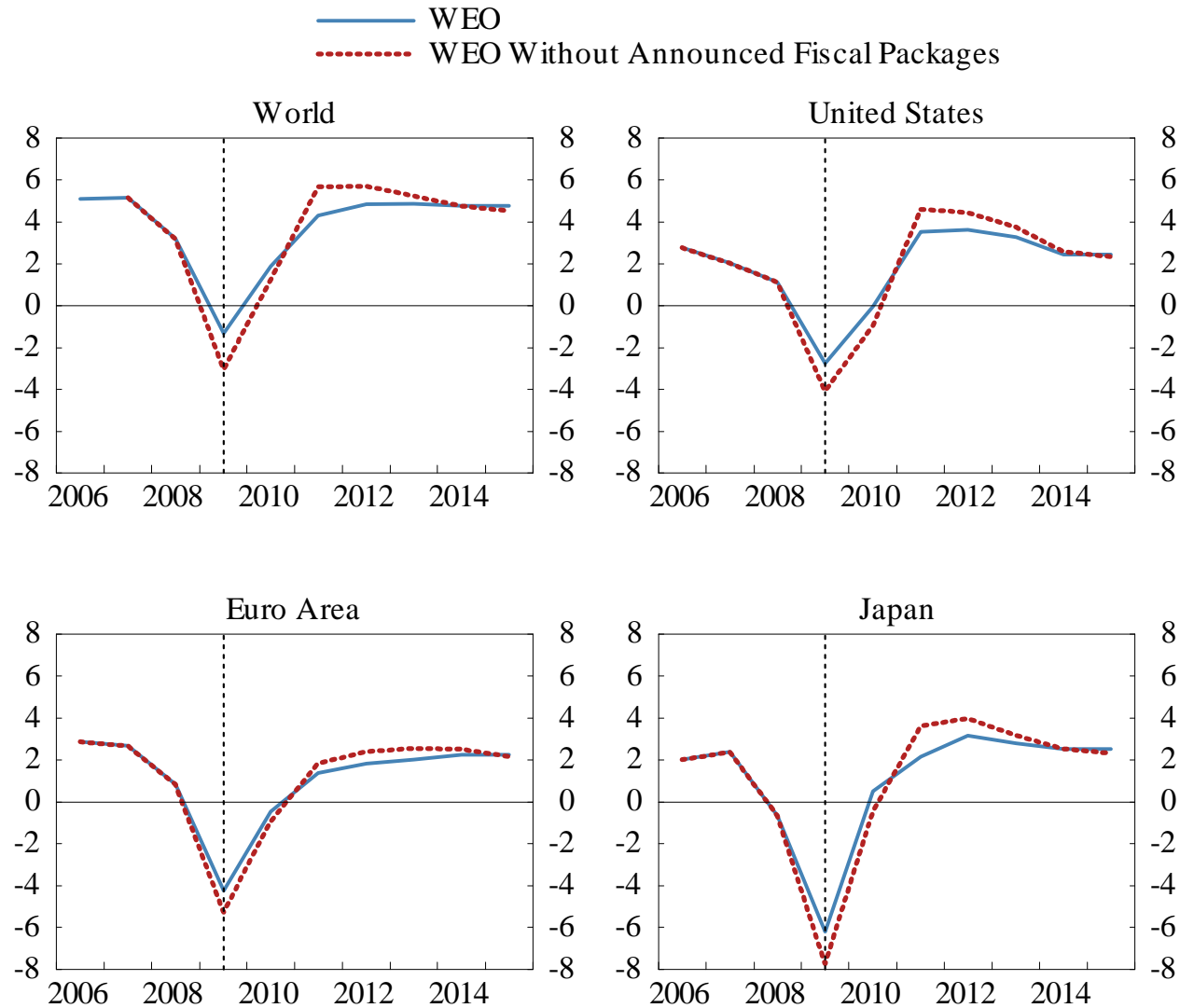


Figure 9: World Economic Outlook Inflation Projections, April 2009 (With and Without Estimated G-20 Fiscal Stimulus)

