Mundell-Fleming Lecture: Federal Reserve Policy in an International Context

Ben Bernanke
Brookings Institution

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A SIMPLE MODEL OF CURRENCY WARS

(1) \[ i = i_{US} + e \]  Interest-rate parity

(2) \[ Y = -ai + bX \]  EME IS curve

(3) \[ X = -ce + fY_{US} \]  EME exports

(4) \[ L = \frac{\theta}{2} Y^2 - X \]  EME loss function
EME POLICYMAKERS' SOLUTION

(5) \( Y^* = c/\left[\theta(a + bc)\right] > 0 \) \hspace{1cm} \text{Overheating bias}

(6) \( e^* = -k_0 - k_1 i_{US} + k_2 Y_{US} \) \hspace{1cm} \text{Exchange rate determination}

where the \( k_i \) are positive constants:

\( k_0 = c/\left[\theta(a + bc)^2\right], \ k_1 = a/(a + bc), \ k_2 = b f/(a + bc). \)
THE GLOBALLY OPTIMAL SOLUTION

(7) \[ Y_{US} = -gi_{US} + hX_{US} \] IS curve for the US

(8) \[ X_{US} = je \] US exports

(9) \[ L = \frac{\theta}{2} Y^2 - X + \frac{\delta}{2} Y_{US}^2 \] Global loss function

(10) \[ Y_{US} < 0 \text{ and } 0 < Y < Y^* \] Social optimum
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