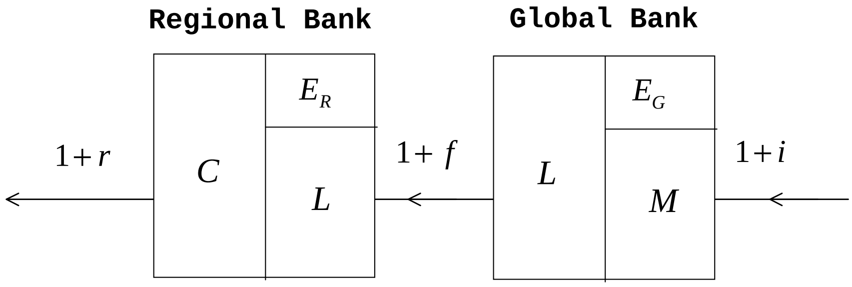

Figure 7. Regional and global bank balance sheets

where $f_G(\cdot)$ is the density of the good portfolio and (13) follows from integration by parts. Hence, $\Delta\pi(\varphi) = \int_0^{\varphi} [F_B(s) - F_G(s)]\, ds$. Since $F_G(z)$ cuts $F_B(z)$ once from below, $\Delta\pi(\varphi)$ is single-peaked. From (12), $\lim_{\varphi\to 1} \Delta\pi(\varphi) = k$, so that $\Delta\pi(\varphi)$ approaches k from above as $\varphi \to 1$. Since $\varphi < 1$ for any bank with positive equity, we have a unique solution to $\Delta\pi(\varphi) = k$. This proves the lemma.

Lemma 1 ties down the leverage of regional banks as a function of the payoff fundamentals and the expected appreciation of the local currency.

2.2.4 Loan supply

We now solve for loan supply by regional banks. The notation follows Figure 7. All banks are risk-neutral price takers and take i, f and r as given when making their lending decisions. Regional bank i has own funds $E_{R,i} > 0$, which is exogenous. Bank i's loan supply is C_{is}.

Bank i's optimisation problem is to choose C_{is} to maximise its market value of equity:

$$C_{is} \cdot (E(w) - (\varphi - \pi(\varphi))) \tag{14}$$

subject to the incentive compatibility constraint $\Delta\pi(\varphi) \leq k$, its exogenous own funds $E_{R,i}$ and the balance sheet identity $C_{is} = E_{R,i} + L_i$, where L_i is the dollar funding obtained from global banks. From the balance sheet identity, L_i is determined when C_{is} is chosen, and so we may limit attention to C_{is} as the sole decision variable.

Since the bank is risk-neutral, the IC constraint binds and φ is the solution identified in