

At the beginning of date $t+1$, firm 2 delivers its intermediate good to firm 1, who then discounts its holding of promissory notes at the bank, obtaining cash of p . This cash is used to pay its wage bill of w , and firm 1 is able to produce its intermediate good. This intermediate good is delivered to firm 0 at the beginning of date $t+2$.

At date $t+2$, firm 0 incurs cost of w to produce the final good. This final good yields revenue of $3p$ at date $t+3$. At this date, firm 0 redeems the promissory notes discounted by firms 1 and 2, and repays the bank the amount $2p$.

In this way, firm 0 can make its creditworthiness available to upstream firms, enabling them to economize on their working capital. However, the flip-side of this arrangement is that firm 0 must borrow on behalf of the whole production chain, rather than simply for its own operation. Firm 0 ends up with very high levels of leverage. In the run-up to the 1997 financial crisis in Korea, *Chaebol* firms had debt to equity ratios of 300% or more - many times the OECD average. Promissory notes also enabled the *Chaebol* firms to exploit their bargaining position to extract the surplus from their relationship with subcontracting firms, further entrenching their dominance. The 1997 crisis exposed the fragility of the financial system built on promissory notes.

Given our focus on the role of moral hazard in the production chain, the financing of the triangle of costs via promissory notes raises the issue of how moral hazard can be addressed. To put it another way, how are promissory notes different from cash?

The system of promissory notes replaces the carrot of accounts receivable with the stick of contingent liability arising from the contractual feature of endorsement. Before the note can be transferred to another firm, it must be