

endorsed by the transferring firm. By endorsing the note, the transferring firm guarantees to take on the obligation of redeeming the note in case the original issuer defaults. Thus, the potential liability of the transferring firm is related to the total face value of the notes (and hence total sales), which may be much larger than the size of the economic surplus arising from the relationship between the two firms. In our illustration above, when firm 0 defaults with large debts, firms 1 and 2 must meet the liabilities of firm 0.

Also, when the issuer of the note defaults, *all* of the endorsing firms become liable at the same time, and the holder of the note can demand payment from any of the endorsers. The order in which the note was endorsed has no bearing on the sequence in which firms are liable. The economic rationale for making the endorsers jointly liable is clear. By imposing joint liability, the endorser cannot refuse payment by citing some other firm as being “more liable” for the payment of the note, and exploiting the uncertainties surrounding the true ability to pay of those further up the liability chain.¹²

To illustrate the effects of contingent liability, consider a production chain where all upstream firms are financially constrained initially, and must pay for intermediate inputs by transferring the promissory notes of firm 0 with endorsement. We will consider a variation of our earlier model with a finite horizon, given by T . The current date is $t < T$. If the project fails before the terminal date T , then the final product firm (firm 0) fails and there follows a post-default game in which all upstream firms are jointly liable for the liabilities of firm 0. Suppose that the expected cost for an upstream firm arising from contingent liability in the post-default game is C . We do not model the post-default game explicitly here, since the basic tradeoffs will not

¹²The rules governing endorsement are similar to those governing bills of exchange. See Schnabel and Shin (2004) for a discussion of the legal underpinnings of bills of exchange in Europe in the 18th century.