Managers have been enticed by the possibility that “loss framing” incentive plans—prepaying bonuses and then clawing them back if targets are unmet—might motivate improved performance at little cost. We use a $66 million field experiment with 294 car dealerships to demonstrate that contrary to common expectations, loss framing can backfire as agents pursue costly actions to reduce the risk of paying bonus clawback. Loss-framed dealers lost $45 million in sales, cannibalizing some car models to protect bonuses for others. A formal model shows this result is generalizable—loss-framed incentives will commonly backfire by motivating incentive gaming.