Upon the exception restart a new node is added to the tree, changing the height of its branch and potentially requiring rebalancing. We may need to rebalance the tree only after the key lookup failure and the addition of a new node. The optimal solution is to proceed upon the assumption of no rebalancing; if we eventually discover that the key was missing and a new node has to be adjoined, we go 'back in time' and add the call to rebalance at the beginning.