In these risks to effectively offset the commodity

Art & Culture, Music

In this section we will first see the variouscommodity price risks the industry is facing followed by, how each of our threeenterprises are establishing their responses to these risks to effectively offsetthe commodity price risk. In computer industry Dynamic Random Access Memory(DRAM) and NAND flash memory1 are consideredas commodities and the industry is exposed to the input commodity price risk ofthese commodities. The risk primarily stems from ongoing price volatility ofthe following items, DRAM and NAND flash memory2. Let us learn what these commodities are exactly and whereDRAM and a NAND memory gets used in the manufacturing of computers. DRAM is atype of hardware memory part every computing system needs to perform a givenoperation. By using a DRAM computers of computing systems develop thecapability of processing multiple tasks which are given to it at the same timein a very short span of time. This is possible as DRAM enables multiple accessto the computer’s memory at the same time.

Though it may sound like heavyengineering, the functional point we need to keep in mind is that instead ofprocessing tasks one after another line in a serial queue, DRAM give computerthe capability to perform that task parallel as a result it saves on the timeto compute that task, as a result the computer processes faster. Without this magnificenthardware, computers in todays would take ages processing information and wouldbecome useless. Now let’s explore NAND flash memory. NAND memory is atype of device which does not need to power for data retention. Meaning tostore or retrieve data computer hard drives needs to be powered on to do anyaccess management, however NAND flash memory allows those functions to be performedwithout having the device powered on. This is significantly helpful

when NANDis used in devices which needs less power to operate or which are small and donot have capacity to carry big batteries or energy cells with them , an exampleof such a device would be Smart phone, tablet, Camera, portable music player.

The prices of both DRAM and NAND has been veryvolatile. As shown in Figure 3. 1 fluctuationsin Spot Price and Contract Price of 8GB DDR4 RAM and figure 3. 2 shows the fluctuations in Spot Price and Contract Priceof a 128GB Multi-level cell NAND. DRAM and NAND are considered as commodities in theComputer industry, and their prices are majorly governed by demand and supplyfactors3. Device manufacturers need a certain amount of DRAM and NAND to meet theirdevice’s needs for performance requirements of their systems.

Factors which aregoverning the steep increase in the price of DRAM are: a) booming hardwaremarket which is making the price double each year and b) mobile and cloudcomputing, which being the two new technology growth sectors have fueled the everincreasing demand of DRAM. The skyrocketing increasing price of NAND can becontributed to the fact that the manufacturer of NAND are unable to keep pacewith the heavy industry demand. Almost every smart electronic product viz, television, thermostat, mobile devices security cameras etc. uses NAND todayand assessing the demand situation for these commodities in can be verycomplicated as well.

In figure: 3. 3we can see the growing and diversifying demand for DRAM and NAND memories. 1DRAM and NANDmarket, marketrealist. com/2017/09/microns-strategy-in-the-nand-market2DRAM and NANDmarket,

marketrealist. com/2017/09/microns-strategy-in-the-nand-market3Where is theDRAM market headed? https://www. forbes. com/sites/greatspeculations/2017/09/20/where-is-the-dram-market-headed/#1769f2045c61