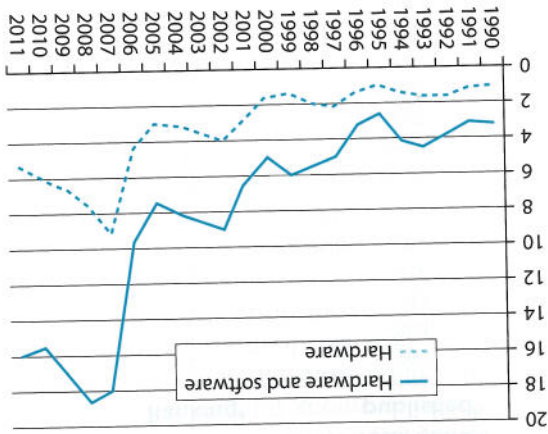


FIGURE 1 US consumer expenditure on video games and consoles, 1990-2011 (\$billion)



The composition of the market was changing rapidly in terms of both hardware and software. Video games were shifting from home-based devices such as consoles and PCs to mobile devices, while the distribution of games was shifting from packaged software sold by retail stores to direct downloads, subscriptions, and cloud access.

Software

Each video game console supplier ("platform provider") licensed third-party software companies to develop and distribute games for its system. Two types of companies were involved in video games software: video game publishers, which were responsible for financing, manufacturing, marketing, and distributing video games; and video game developers, which developed the software. Publishing was increasingly dominated by a few large companies (Table 2). Typically, the software publisher submitted a proposal or a prototype to the console maker for evaluation and approval. The licensing agreement between the software company and the hardware provider gave the console maker the right to approve game content and control over release timing, and provided for a royalty payment from the software company. Game developers were paid a royalty, typically between 5 and 15%, based on the publisher's revenues from the game. The console makers were also major developers and publishers responsible for some of the most popular video games (Table 3).

Escalating game development costs were a result of the demand for multifeatured, 3-D, cinematic-quality games that could utilize the potential of increasingly powerful consoles. Atari's *Fac-Man* released in 1982 was created by a single developer and cost about \$100,000. Activision's *Call of Duty: Black Ops* involved over 100 software engineers, about three years' development, about \$28 million in development cost, and about the same in launch promotion. Released in November 2010, it generated \$650 million of sales in its first five days. Its sequel, *Call of Duty: Modern Warfare 3*, which was released a year later, realized revenues of \$775 million within five days.