**COST OF CPU OVER TIME (DIFFERENT CPU’S)**

**INTRODUCTION**

The cost of Central Processing Units (CPUs) has undergone significant changes since the inception of the microprocessor. From the early days of the Intel 4004 in the 1970s to the advanced processors of today, CPU pricing has been influenced by technological advancements, manufacturing processes, market competition, and economic factors. This introduction explores how these elements have shaped the cost trajectory of CPUs, highlighting key milestones and shifts in the industry. Understanding the evolution of CPU pricing provides insight into the broader trends in computing technology and market dynamics.

**SUMMARY**

The cost of CPUs has changed a lot over the years. Here's a simple overview:

* 1970s-1980s: Early CPUs like the Intel 4004 and 8080 were expensive because they were new and made in small quantities.
* 1980s-1990s: CPUs such as the Intel 80386 and Pentium were still pricey due to advances in technology.
* 2000s: Prices started to drop as AMD competed with Intel, offering powerful CPUs like the Athlon 64 at lower prices.
* 2010s: More affordable high-end CPUs appeared, like Intel's Core i7 and AMD's Ryzen, thanks to intense competition.
* 2020s: Top models like Intel's Core i9, AMD's Ryzen 9, and Apple's M1 chip offer great performance at various prices.

Factors affecting CPU prices include improvements in manufacturing, better technology, competition between companies, and economic conditions. Today, consumers get more powerful CPUs for their money than ever before.

**DESCRIPTION**

**Manufacturers and Types of CPUs**

**Major Manufacturers:**

* Intel: Pentium, Core, Xeon series.
* AMD: Athlon, Ryzen, EPYC series.
* Apple: M1, M2 chips (ARM architecture).
* ARM Holdings: Designs used by Qualcomm (Snapdragon).

**Types of CPUs:**

* Desktop: Intel Core i9, AMD Ryzen 9.
* Server: Intel Xeon, AMD EPYC.
* Mobile: Qualcomm Snapdragon, Apple A-series.
* Embedded: ARM Cortex.
* Reasons for CPU Price Increases
* Technological Advancements: Smaller transistors, increased performance.
* Manufacturing Costs: High R&D investment, complex fabrication.
* Market Dynamics: Supply and demand, competition.
* Economic Factors: Supply chain issues, inflation, trade policies.

**Future Expectations:**

* Continued Technological Progress: Smaller nodes, new architectures.
* Enhanced Competition: New entrants like Apple, ongoing Intel vs. AMD rivalry.
* Economic and Supply Chain Stability: Stabilizing supply chains, economic adjustments.
* Overall, while CPU prices have fluctuated, future trends suggest continued innovation and competitive pricing, benefiting consumers with more powerful and affordable CPUs.

**CONCLUSION**

In conclusion, while CPU prices have risen due to technological advancements, competition among manufacturers like Intel, AMD, and emerging players such as Apple has mitigated some of these increases. Looking forward, continued innovation and competitive pressures are expected to keep CPU prices in check, offering consumers improved performance and value. Additionally, as supply chains stabilize and economic conditions adjust, there may be opportunities for prices to become more predictable and potentially lower, benefiting consumers worldwide.