

x86-64

- follow on to x86

- All Intel + AMD chips

- AMD did x86-64

- Intel tried Itanium

 - ↳ very long instruction word
(VLIW)

 - failed!

- x86-64 extends x86 to 64bits

- no longer base pointer for stack

- lots more registers

- TONS more instructions

- New calling convention



Figure 3.35 Integer registers. The existing eight registers are extended to 64-bit versions, and eight new registers are added. Each register can be accessed as either 8 bits (byte), 16 bits (word), 32 bits (double word), or 64 bits (quad word).