

Reinhart-Rogoff "austerity" paper, 2010



coding mistakes

bad public policy



Mars Climate Orbiter

lbf-seconds

N-seconds

units mix-up

lost mission



```
1 program energy
2   != unit kg           :: mass
3   != unit m/s**2       :: gravity
4   != unit m            :: height
5   real, parameter :: mass = 3.00, gravity = 9.81, height = 4.20
6   != unit kg m**2/s**2 :: potential_energy
7   real              :: potential_energy
8   potential_energy = mass * gravity * height
9 end program energy
```

units-of-measure checking