The Virus Wars in 3 parts

1. The Alien Invasion
2. Wartime Fiscal Policy
3. Wartime Central Bank Policy
The Invasion: World Growth Collapses

Dashed lines is Jan 2020 forecast. Solid line is Apr 2020 forecast.

Seems very optimistic!

Source: IMF World Economic Outlook, April 2020.
The Invasion: U.S. Industrial Production

Peak to trough industrial production in past business cycles.

The 2020 estimate is based on March a peak unemployment rate of 18%

Source: FRED, and author’s calculations.
The Invasion: U.S. GDP Growth Collapses

Quarterly decline: -15 percent.

Annual rate decline: –40 to –60 percent!

Source: FRED, and author’s calculations.
The Invasion: Spike in Unemployed

Unemployment insurance claims: +22 million in 4 weeks

Implies Unemployment Rate: 18%

(Underemployment could rise above 25%)

Source: FRED.
The Invasion: U.S. Inflation Expectations Fall

Higher of probability of lower inflation.

The Invasion: Consumer Delinquency Rates

Consumer loan delinquencies move with unemployment.

If unemployment goes to 18%, many borrowers will not be able to make payments.

Source: Federal Reserve Bank of New York and author’s calculations.
The Invasion: Equity Volatility

VIX peak is above 2008 level
Signals extreme financial stress

Source: FRED.
The Invasion: Risk Spreads

3 month LIBOR – OIS spread ↑↑↑

Measure riskiness of short-term bank funding.

Source: Haver Analytics, courtesy of Citigroup.
Consequences of the Alien Invasion

• Output is collapsing
• Unemployment is skyrocketing
• Expected inflation is falling
• Consumer loan defaults are rising
• Business creditworthiness plunging
• Financial market turmoil
Is the Invasion a Supply or a Demand Shock?

• **Supply**
  • The lockdown and quarantines
  • Business closings
  • Supply chain disruptions

• **Demand**
  • Loss of income lowers consumption
  • Uncertainty reduces investment and increases saving
  • Reduced access to credit
  • Global downturn
Is the Invasion a Supply or a Demand Shock?

• Demand: Output & inflation move in **same** direction
• Supply: Output & inflation move in **opposite** directions
• Aliens look like a combination:
  • Potential output is down dramatically
  • Demand is down dramatically
  • Inflation expectations are down
Franco bombed Madrid in 1936
People stopped going to museums
Appropriate policy: protect the art

Diego Velasquez, Las Meninas, 1656
Policy Challenges from the Alien Invasion

• Distribute the large losses (now or later)
• Cushion the impact on the real economy
• Ensure financial system continues operate
• Maintain relationships
  • Employer/Employee
  • Retailer/Consumer
  • Supplier/Customer
  • Landlord/Tenant
  • Lender/Borrower

To maintain productive capacity keep network intact