AI and Disruption in Insurance and Credit Markets

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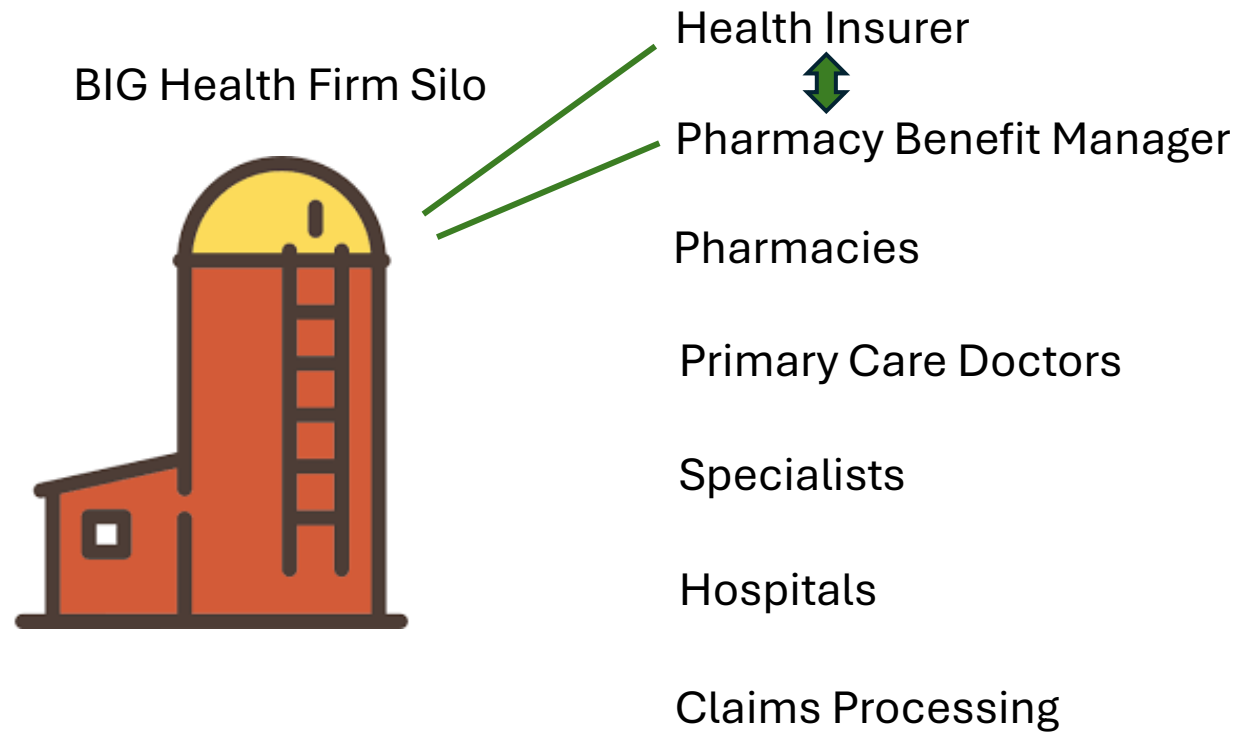
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AI, Big Data and Economies of Scale

- Insurance and credit markets depend heavily on information about customers [endogenous cost types and utilization]

- AI + Big Data allow for substantive improvements in targeted pricing, selection and utilization management strategies

- Who controls the data?

-- Proprietary, siloed within firms

--Third-party businesses / agencies

--Government [via regulation] disseminated to third parties
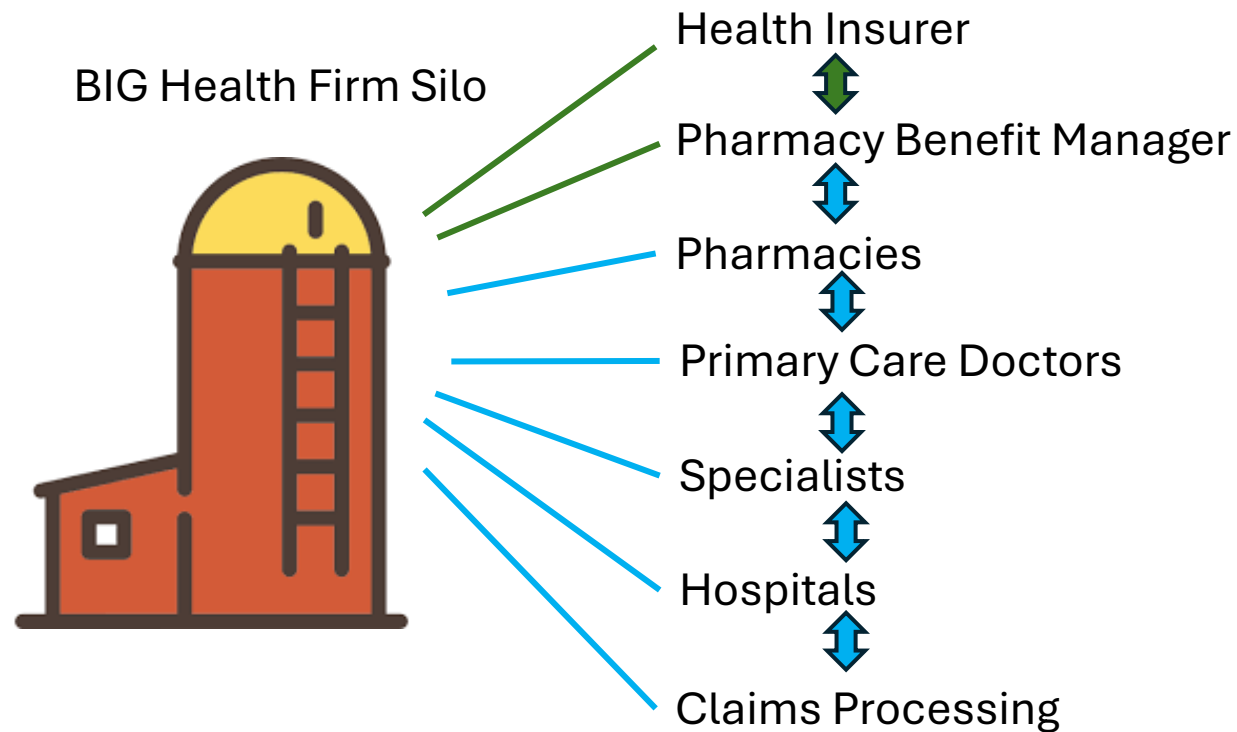
AI, Big Data and Economies of Scale

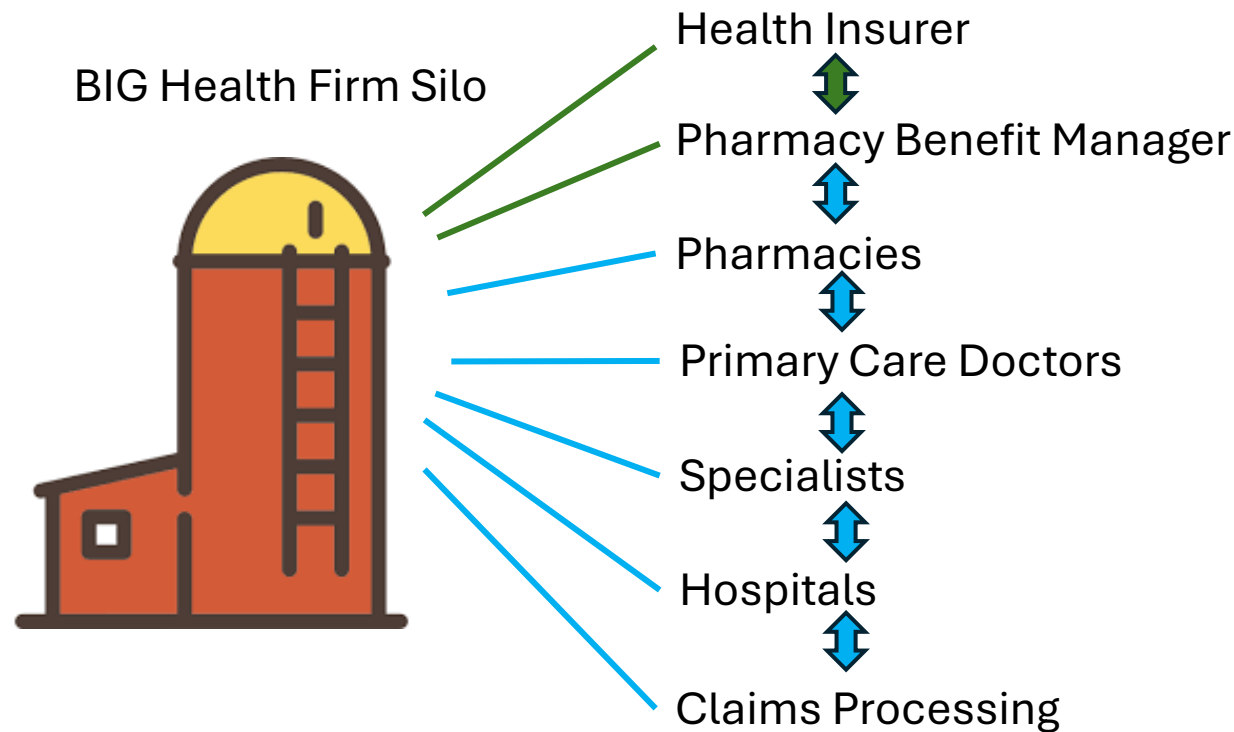- Who controls the data in health care markets?

BIG Health Firm Silo

Health Insurer

Pharmacy Benefit Manager

Pharmacies

Primary Care Doctors

Specialists

Hospitals

Claims Processing

AI, Big Data and Economies of Scale

- Vertical Integration, Scale and AI complements in health markets

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- HIPAA and privacy law protects data silo and firms protect "secret sauce." May be different in other credit / insurance markets.

AI, Big Data and Economies of Scale

- Vertical Integration, Scale and AI complements in health markets

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⇕
Claims Processing

- **Impact**: Enhanced (i) utilization management (both good and bad) (ii) risk selection (iii) referrals / supply-chain use (iv) targeting of physicians / hospitals to purchase (v) provider incentives / strategies (vi) gaming government programs. Market advantage.

AI, Big Data and Economies of Scale

- Vertical Integration, Scale and AI complements in health markets
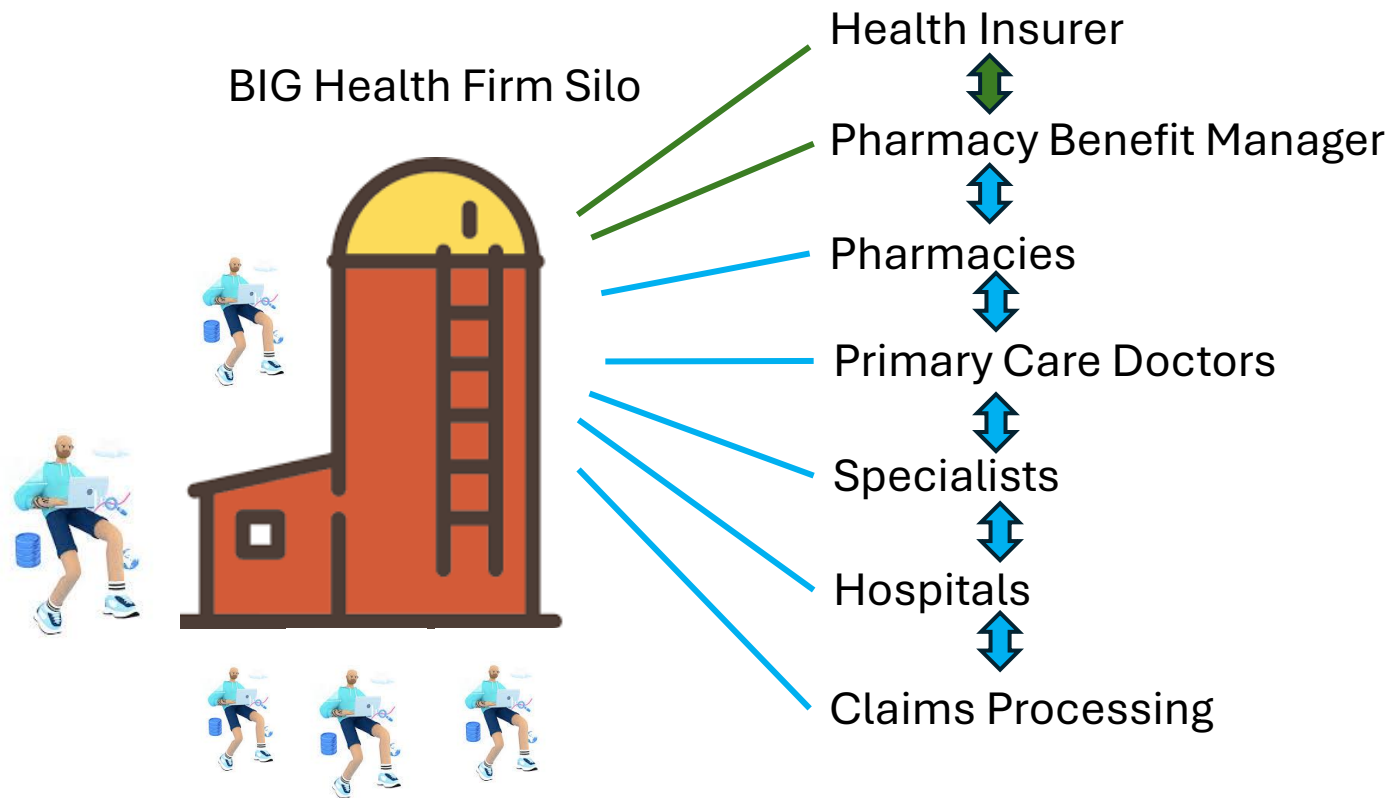
- Given siloing, economics of scale further enhanced by limited supply of top quality data scientists / data engineers, who collect / work in large firms

Regulation

- Big potential benefits to regulation that anonymizes and makes available real(ish) time anonymous medical claims / chart data to aid smaller firms

- We're really really really far away from this. Current purchasable / accessible data falls far short of proprietary data.
  - Price transparency law as example of difficulty

- But, could take baby steps at different jurisdiction levels (i.e., state vs. federal) or for certain parts of supply chain.

Additional Topics

- Targeted defaults, consumer purchases, consumer switching

    -- Data availability matters a lot

    -- Within / across firms, could have massive improvements in AI generated behavioral recommendations.

    -- Data portability a la Thaler / Nudge cell phone plan choice example

    -- Who can make the best recommendations? Third parties? Businesses with existing customers?

- Changing market fundamentals with AI-generated cost projections / pricing projections / recommendations

    -- Adverse selection and moral hazard

    -- Static and dynamic price discrimination [credit, car insurance]

- Collusion and AI