Institutional transformation.

- Agricultural transformation.
  - The enclosure movement.
- Commercial transformation.
  - The requickening of trade.
  - The development of cities.
- Political transformation.
  - The rise of the nation-state.
  - Mercantilism.
Rise of the nation-state.

Increase in the MES of military technology.

- Lower communication and coordination costs.
- Population increase.
- Change in military technology?
  - Pike and longbow.
  - Gunpowder.

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The Battle of Agincourt (1415). Fifteenth-century miniature.
Institutions and economic growth.

- Efficient institutions.
  - Secure property rights.
  - Reduce transaction costs.
  - Positive-sum game.

- Inefficient institutions.
  - Redistribute wealth rather than create wealth.
  - Monopolies, trade restrictions.
  - Zero-sum (negative-sum) game.
Market integration.

- Tolls and internal customs barriers.
- Coinage.
- Weights and measures.
- Law.
- Market-enhancing institutions.

Rembrandt, detail from *The Moneychanger* (1627), Staatliche Museen, Gemäldegalerie, Berlin.
Tolls and internal customs barriers.

- Not only tariffs at political boundaries but also internal tolls.
  - Roads and waterways.
  - Markets and towns.
- Customs barriers every six miles on the best roads.
- More than 60 tolls on the Rhine by the end of the Middle Ages.
- In France, still 1600 tolls at the time of the French Revolution (1789).

Rembrandt, detail from *The Moneychanger* (1627), Staatliche Museen, Gemäldegalerie, Berlin.
Tolls and internal customs barriers.

- England: monarch opposed tolls without a *quid pro quo* of service.
  - Royal permission needed.
  - Inhabitants could demand audit.
- Gradual disappearance of tolls.
- Separated foreign from domestic:
  - “customs” vs. “tolls.”
- National customs system, 1275-1350.
- Early power of monarchy.

Rembrandt, detail from *The Moneychancer* (1627), Staatliche Museen, Gemäldegalerie, Berlin.
The turnpike system.

- 1660 through eighteenth century.
- Best one-fifth of English roads.
- Privately constructed by “turnpike trusts.”

“The benefits of these turnpikes appears now to be so great, and the people in all places begin to be sensible of it, that it is incredible what effects it has already had upon trade in the counties where it is more completely finished.”

— Daniel Defoe
Coinage.

- Unification quicker and easier.
  - Theory of money.
  - Depreciation ceases.
- France: a talent for manipulating coinage.
- Germany: coinage remains largest obstruction to internal trade.

Rembrandt, detail from *The Moneychanger* (1627), Staatliche Museen, Gemäldegalerie, Berlin.
Weights and measures.

- In Middle Ages, varied not only by locality but also by type of product.
- Aids cheating, raises transaction costs.
- England leader in unification, but local weights and measures not abolished until statute of 1835.

“... to bring the whole of His Majesty’s kingdom within the same statutes and within the same system of weights and measures, an undertaking very worthy of our great King …”

— Jean-Baptiste Colbert (1665)

Rembrandt, detail from *The Moneychanger* (1627), Staatliche Museen, Gemäldegalerie, Berlin.
Evolution and unification of law.

- On the continent, the rediscovery of Roman law.
- In England, parallel development of Common Law.
  - Battle against royal monopolies.
- The Law Merchant.
  - Enforcement at the Champagne Fairs.

Rembrandt, detail from *The Moneychanger* (1627), Staatliche Museen, Gemäldegalerie, Berlin.
Economic association without kinship.

- Trading within ethnic networks.
  - Ethnic culture and institutions promote trust, enforce sanctions.
- The Community Responsibility System.
  - Intergroup trading.
  - Sanctions imposed at group level.
- The Individual Responsibility System.
  - As groups grow, difficult to monitor members effectively.
  - Rise of legal institutions of nation-state and law merchant.

Other market-promoting innovations.

- Bills of exchange.
  - Development of banking.
- Insurance.
  - Separation of marine insurance from financing.
- Double-entry bookkeeping.
  - Helps detect errors.
  - Separation of business account from family account.
Guilds.

- Medieval guilds.
  - Institutional structure for preserving and diffusing productive knowledge.
  - Institutional structure for coordinating commitments and enforcing contracts.

- Decline of guilds.
  - Competition from rural industry.
  - State policy weakens guilds in England and the Netherlands, strengthens them in France.


Medieval guilds integrated insurance, safety-net, and other functions.
Mercantilism.

Association of state power with economic power.

- Microeconomic.
  - System of economic regulation

- Macroeconomic.
  - Regulation of international trade and finance.

- System of economic thought.

A sea depot in Amsterdam, 1750.
Patents and Monopolies.

- Creation of “artificial” property rights.
  - Right to exclude others from competition.
- Monopoly transfers wealth from consumers to producers (PS)
  - Merchants willing to pay monarch up to PS for right to monopoly.
- Dead-weight efficiency loss (DWL).

DWL loss represents foregone gains from trade.
Patents and Monopolies.

- Origin of the word *patent*.
- Typical Elizabethan monopolies:
  - Saltpeter, gunpowder, salt, paper.
- In 1603, Elizabeth declares monopolies contrary to common law.
  - In re: playing cards.
  - Pressure from merchants and courts.
- Statute of monopolies (1625).

Trade and monetary policy.

- Control of export of bullion.
- Staple policy.
  - Town as entrepôt.
- Policy of provision.
  - Restrictions and subsidies to retain or attract certain goods.
- Sumptuary laws.

Balance of trade.

A sea depot in Amsterdam, 1750.
Mercantilism as a system of ideas.

Balance of trade.

- Analogy with individual account.
  - From Italian accounting practices.
  - Fallacy of composition.
- Struggling to understand growth in a zero-sum framework.
- Adam Smith attacks “the mercantile system.”

A sea depot in Amsterdam, 1750.