Principles of Economics I: Summary

1. Comparative advantage
    - With different opportunity costs for producing various goods, there is room for mutually beneficial trade
2. Constrained optimal choice
    - Feasible set -> MRT.
    - Preferences -> MRS.
    - Optimal choice where MRS = MRT
    - Comparative statics: effect of changes in feasible set, income effect, substitution effect
3. Social Interactions
    - Payoffs depend on strategies of all many decision makers (players)
    - Description as games
    - Solution concepts: Dominant strategy equilibrium, Nash equilibrium
    - Social dilemmas
    - Material vs. subjective payoffs
4. Institutions and Power
    - Dictatorial decisions (subject to some constraints)
    - Power to refuse (outside options for the subjects)
    - Institutions guiding division of surplus
    - With well defined property rights, Coase Theorem: if the parties can negotiate freely, efficient economic outcomes result regardless of the initial allocation of property rights
5. Firm and its workers
    - Worker has some autonomy in her decisions at work (how much or how well aligned effort to provide)
    - Firm wants productive effort
    - Worker may have different preferences
    - Wage determines labor rent and effort determines the probability of keeping the job
    - Firm chooses wage to minimize wage cost of effort provision
6. Firm and its consumers
    - Demand curve representing the willingness to pay in the market
    - Cost function describing the technology of the firm
    - At lower prices more consumers buy
    - Marginal revenue differs from price since to sell more, price must be decreased
    - Profit maximizing firm sets marginal revenue equal to marginal cost if in operation
    - Since MC = MR which is below the market price and market price equals the willingness to pay for an additional unit in the market, price setting leads to deadweight loss
    - If the resulting price at this point is below average cost, firm will not operate (since profit is negative at all levels of production)
    - Elasticity of demand representing the degree of substitutability of the product

7. Price-taking firms and competitive equilibrium
    - Market supply from adding together individual supply curves by the firms
    - Equilibrium price at the intersection of market supply and demand
    - Pareto efficient allocation: also maximal total surplus = consumer surplus + producer surplus
    - Distortions in the market: taxes, price ceilings, subsidies
    - Fiscal incidence of taxes: it does not matter who pays the tax
    - Economic incidence of taxes: losses from taxes to consumers and producers depend on the elasticities of demand and supply
    - Model of trade and tariffs: distinction between tariffs for a small open economy (no impact on world market prices) and a large economy where all prices depend on the tariff set in the large country
8. Long-run equilibrium and perfect competition
    - If all production technologies can be freely copied, long-run supply curve is horizontal. Rent-seeking.
    - Long-run number of firms determined by efficient scale of operation (production level minimizing average cost) and the average cost at that efficient scale (equalized to market price to eliminate excess profits or rents in the market)
    - Incentives to innovate? Need protection in the form of at least temporary rents to incur costs to improve technologies or products etc.
    - Balance between losses from market power due to this protection and the incentives needed for innovations: patent policies, copyright, trade-marks etc. protection. IPR (Intellectual Property Rights)
    - Is rent-seeking always beneficial? Competing for a fixed resource leads to inefficient rent-seeking
9. Saving, borrowing and financial markets
    - Intertemporal allocation of consumption and decision on firm investment projects: depends on MRT between time periods that reflects storage, investment opportunities, borrowing and lending at a market interest rate etc.
    - Market for credit: interest rate as the market price equilibrating the demand for credit and the supply of credit
    - Financial institutions: banks performing maturity transformation. Different maturities in assets and liabilities make banks vulnerable to liquidity problems: bank runs.
    - Central bank supplying legal tender, performing as lender of last resort, enforcing financial market stability (other governmental regulations in place too such as deposit insurance)
    - Market in shares, i.e. stock market as a means of raising funding for investment projects and as a means of obtaining market evaluation of firms' future profitability