

Economic Foundations of Theories of Change

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May 3

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We respect the Treaties that were made on these territories, we acknowledge the harms and mistakes of the past, and we dedicate ourselves to move forward in partnership with Indigenous communities in a spirit of reconciliation and collaboration.

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Plan for the workshop

Day 1

Hour 1: Key themes from Economics

Hour 2: The Policy Map: An economist's view

Hour 3: Applying core ideas from economics the 2021 federal budget – Breakout 1

Day 2

Hour: 1 Modelling policy: Cause and effect

Hour: 2 Measuring economic impact – Evaluating a basic income

Hour: 3 Using economics to design an – Breakout 2

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Breakouts

- Each day will have a breakout (start of Hour 3) with follow-up to conclude the Day.
- I have preassigned you to a breakout very imaginatively entitled 1, 2, and 3.
- The email you received will have identified a policy/program and associated issues/questions for each breakout.

Key themes from economics

Two key definitions

- **Standard economics**(classical, neoclassical, neo-liberal, Keynesian....)

Economics studies how people interact with value; in particular, the production, distribution, and consumption of goods and services.

<https://en.wikipedia.org/wiki/Economics> (accessed 24/04/21)

- **Political economy** (Marxism, post-Keynesian, heterodox...)

Political economy studies production and trade and their relations with law, custom and government; and with the distribution of national income and wealth. As a discipline, political economy originated in moral philosophy, in the 18th century, but now encompasses analyses of institutions, laws, and groups.

https://en.wikipedia.org/wiki/Political_economy (accessed 24/04/21)

Two more definitions

- **Microeconomics**

Studies the decision making within and among individual economic agents (individuals, households, businesses, organizations...) as well as aggregations of individual agents (unions, cartels, associations...).

Policies include: taxation, subsidies, regulation, public services....

- **Macroeconomics**

Studies national economies in terms of performance and structure as well as the decisions made by governments and central banks.

Policies include: monetary policy (interest rates, financial regulations), fiscal policy (budgets and taxes) and trade policies (tariffs, development aid)

Positive vs. Normative Economics

- **Positive economics** offers an assessment of *what is*, while normative economics describes *what ought to be*.

The description of what is, would appear to be an objective exercise – everyone should be able to agree on the actual state of affairs . In fact, different perspectives exist on the existence of processes such as climate change or the extent of income inequality.

- **Normative economics** is the art/science of public policy that attempts to ameliorate a social/economic/environmental problem.

Public policy *may* divert private resources from the present to the future. This entails opportunity costs (foregone or deferred benefits).

Or, public policy may reduce the diversion and restore resources to the private sector

Key themes from Economics

- **No one is an island** (with apologies to John Donne)
- **Market vs Command** (guiding the invisible hand)
- **Cost and price** (free lunches and economies of scale)
- **Bounded rationality** (rational actors vs behavioural economic concepts)
- **Wicked problems** (complexity in diagnosis, complexity in the design of interventions, and complexity in implementation with many actors having diverse interests and vetoes)
- **Uncertainty** (unknown probabilities of outcomes)
and **risk** (known probability of outcome) affecting design, implementation and evaluation of policy.
- **Institutions** (customs, practices, and norms)

Efficiency vs Equity

- **Efficiency goods/services** seek to improve/supplement private decisions to increase general economic welfare
- **Equity goods/services** seek to make the economy more equitable

Public policy operates in both domains

Evaluations assesses in both domains

Hereinafter – “goods” refers to goods (“stuff”) and services

Efficiency Goods

The goal is to improve the operation of the market economy

- **Public Goods** – Public provision of private goods
- **Market Failure** – Information distortion and risk management
- **Externalities** – Good and bad
- **Competition Policy** – Economies of scale and market power
- **Economic Development** – AKA Industrial Policy

Equity Goods

The goal is to improve the fairness of the market economy and quality of life

- Quality of life
- Nationalism
- Fairness

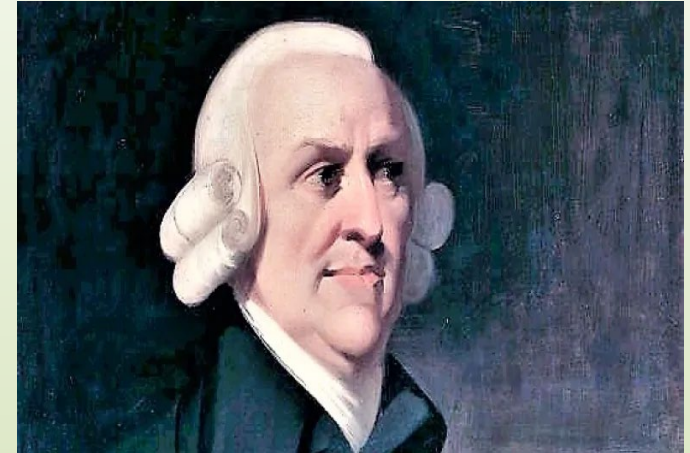
Key debate issue: Are quality of life and fairness independent of growth and efficiency

Efficiency Goods

Adam Smith: misunderstood and maligned

Critical contributions :

- Saw the economy as system of *self-organizing processes* where each agent seeks to maximizing their own welfare.
- Individual agents in engaging in self-interested transactions would create the maximum social welfare as if guided by *an invisible hand*. The invisible hand does not exist... it is a metaphor.
- Advocated free trade, in advance of David Ricardo.
- Worried monopolies work against the common good.
- Defined *public goods* which required government provision ... education, public health, defence, regulation of external trade, and transportation systems. Smith understood that private provision existed in many of these areas (e.g., education) but that private consumption would be “too low”, necessitating public policy.
- Later in the twentieth century, economists added civil and criminal justice systems to the minimal set of public goods.



Key Debate Point

Do voluntary trades produce unintentional and widespread benefits, which are greater than those of a regulated, planned economy?

Public Goods

- The goods/services spectrum
 - **Pure Private goods** are *excludable* (only the consumer and seller are parties to the transaction) and *rivalrous* (consumption by one reduces availability for other consumers).
 - **Pure Public goods** are *non-excludable* and *non-rivalrous*
- Most goods/services occupy a position between these two polar positions (*mixed goods.*)

Table 1: Levels of excludability and rivalry

	Rivalrous	Non-rivalrous
Excludable	Private goods (wheat, cars, restaurant meals....)	Club goods (private parks, clubs, membership in CES...)
Non-excludable	Common-pool resources (national fisheries or forests)	Pure public goods (air quality, aesthetic value of landscape, biodiversity, agricultural research, development, and commercialization)

Market Failure = Information Failure?

- **Moral hazard**
 - Market participants alter their behaviour in response to the divergence of public and private costs
 - Taxes/subsidies cause market participants to purchase/sell less/more than would have occurred with prices equal to the marginal cost
- **Asymmetry of information**
 - Sellers are typically more informed than buyers
 - Prisoners paradox - information lack produces sub-optimal outcomes
- **Uncertainty** about other players reactions causes poor decisions
 - Nash equilibrium exists when I fully account for your probable reaction to my choices and you fully account for my probable choices.
 - Equilibrium exists when we have all adjusted and readjusted to each others' choices/decisions, such that no one can improved welfare by making a change.

Example – information failure

Crop Insurance

- Farmers are believed to experience moral hazard and asymmetric information and therefore tend to purchase too little crop insurance.
 - **Moral hazard** occurs because farmers to reduce other risk management practices (crop diversification, field diversification, seed and harvest timing...). This is common to all insurance markets – I become more careless in taking care of my “stuff” if I am covered by insurance. Insurers attempt to cover these losses by increasing rates after any claim and creating “escape” clauses in the fine print.
 - **Asymmetric information** occurs because the buyer (the farmer) conceals their true risk profile from the seller (insurer) in an attempt to secure lower rates. Increased qualification and arduous application processes are used to mitigate this risk
- The result is that the true risk is higher than measured risk leading insurers to raise the cost of insurance. Farmers underinsure, with the result that crop failures due to natural events create farm losses the cost of which government has traditionally assumed

Example – information failure

Financial literacy and the GFC (2008)

- One widespread explanation for the GFC of 2008 was that many consumers entered into investments (mortgages) that entailed misunderstood risks.
- Asymmetric information existed (sellers of mortgages were believed to understand these risks more than the consumer) and this prompted the call for the provision of financial literacy courses to equip consumers to deal with added complexity in mortgage markets.
- Another policy was mandatory stress tests for prospective mortgage holders
- Another view is that financial institutions concealed (or failed to understand the nature of the risks of the mortgage bundles they were creating.)

Behavioural Economics – the lessons from COVID

- **Moral hazard** relates to our inability to assess risk. The relaxation of social distancing while masked is a perfect example.
- **Present bias** reflects choices favouring immediate gratification (going to a bar) versus a future and unquantifiable risk (the chance of contracting COVID-19).
- **Framing effect** shapes our choices. Research shows that people will respond more to a positive health directive framed as "Wearing a mask increases your chances of remaining healthy to 90 per cent," compared to negative messaging such as "Not wearing a mask means you have a 10 per cent chance of falling ill."
- **Optimism bias** reflects the belief that many of us seem to view ourselves as being heroes in a dystopian novel. We are part of a small group of survivors; everyone else succumbs to the zombie apocalypse and we are the stars in our own reality show. Young people routinely underestimate the risks of disease.

Externalities Example - Pollution

- Down stream water users are often at the mercy of upstream users
- Neighbours often inflict/suffer noise pollution
- COVID is the “mother” of all externalities

Competition Policy

- **Natural Monopoly:**
 - Certain industries (electrical utilities) have extreme economies of scale (long-run costs decline).
 - The incumbent can always underprice new entrants
 - Government typically regulates these entities with respect to profit, price, revenue, scope of service...
- **Outlawed practices include:**
 - Predatory pricing
 - Price-fixing

The irony is that what is outlawed within a nation is a common practice among nations (and provinces!)

Economic Development

- The role of government in guiding, managing, and promoting economic development has grown.
 - Increased focus on advancing disadvantaged groups.
 - The rise of China as a corporate state
 - Chronic “underinvestment” after the GR (low savings and cash hoarding)
 - Accelerated transitions (internet connectivity, “green” economy).

Equity Goods

Equity Goods

- Direct provision (public housing), taxation (progressive income taxation) and subsidies (child care).
- Some policies focus on the quality of life.
- Measures of inequality drive the policy debate.

Winter Olympics 2010

A central goal of the Olympics was to stir national pride. Much of the work of Heritage Canada is to present a favourable image of Canada to the rest of the world.

Success of our athletes is often taken as a measure of “worthiness” for our country. It is usually hard for Canadians to accept that our participation/hosting of the 2010 Olympics has the same motivations as Hitler’s in 1936

Quality of Life

- Common expenditures include support to the arts, sports, national parks....
- In most cases, elected officials serve as a proxy for voter preferences.
- Models where government matches corporate/private donations and paid tickets does allow a measure of demand to guide allocations.
- Many quality of life activities suffer from the “cost disease” as developed by W. Baumol.

Cost disease

The arts and much of healthcare is labor intensive. Unlike many areas where an increase in labour cost will encourage the substitution of machinery for labour, in culture that is often not possible. Increasing the number of live operas triggers a high cost per concert. Since many consumers prefer live concerts, the cost tends to rise rapidly.

Contrast this with concerts viewed from streaming services.

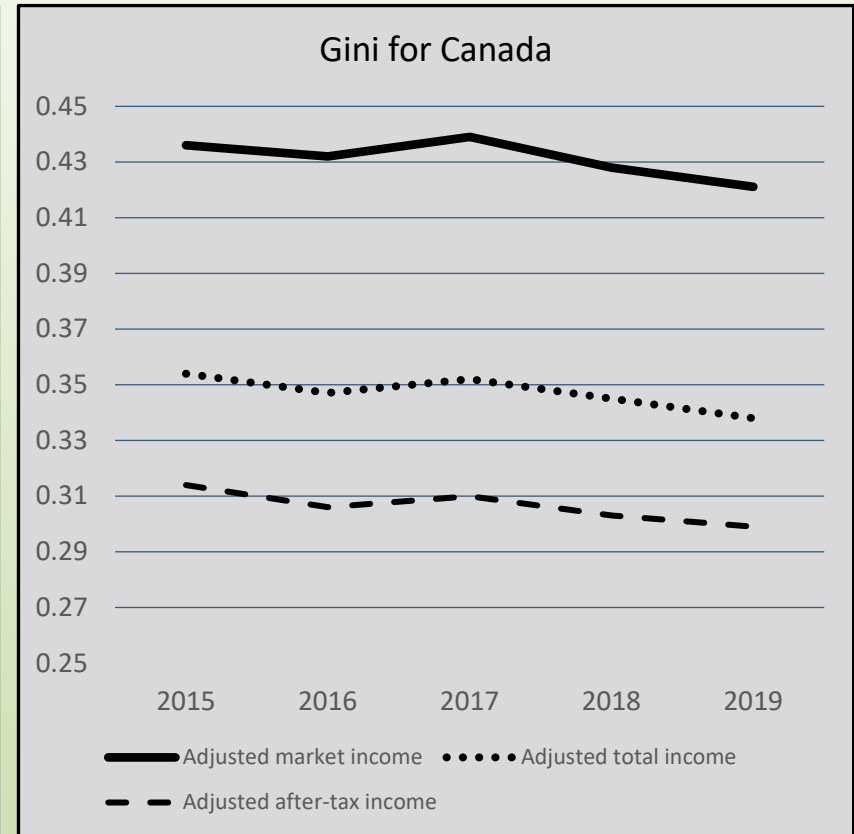
Nationalism

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Equity Goods - Fairness

- Much research confirms the corrosive effects of poverty.
- For the last 100+ years the federal and provincial governments (with the support of Canadians) have accepted responsibility in the creation/maintenance of a social safety net.
- Initial programs were modest (mothers' allowances), but since the nineties, programs such as the Canadian Child Benefit have expanded significantly.
- More recently, inequality has formed a focus for redistributive policies.
- Support for a Universal Basic Income appears to be growing.



The GINI is the “talisman” for those arguing for policies to mitigate inequality

The Policy Map: An economist's view

Figure 1: Policy map (Efficiency Goods)

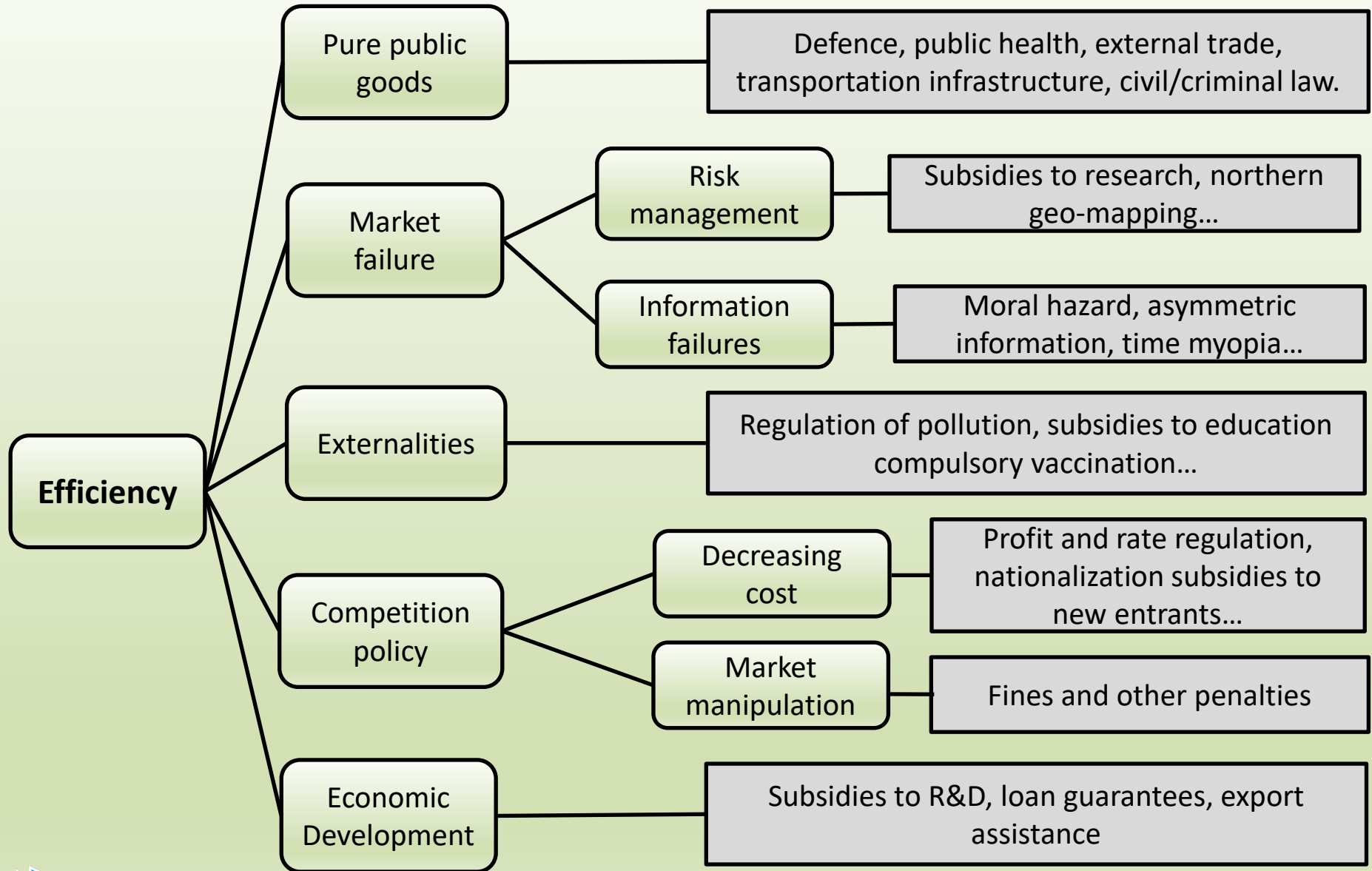
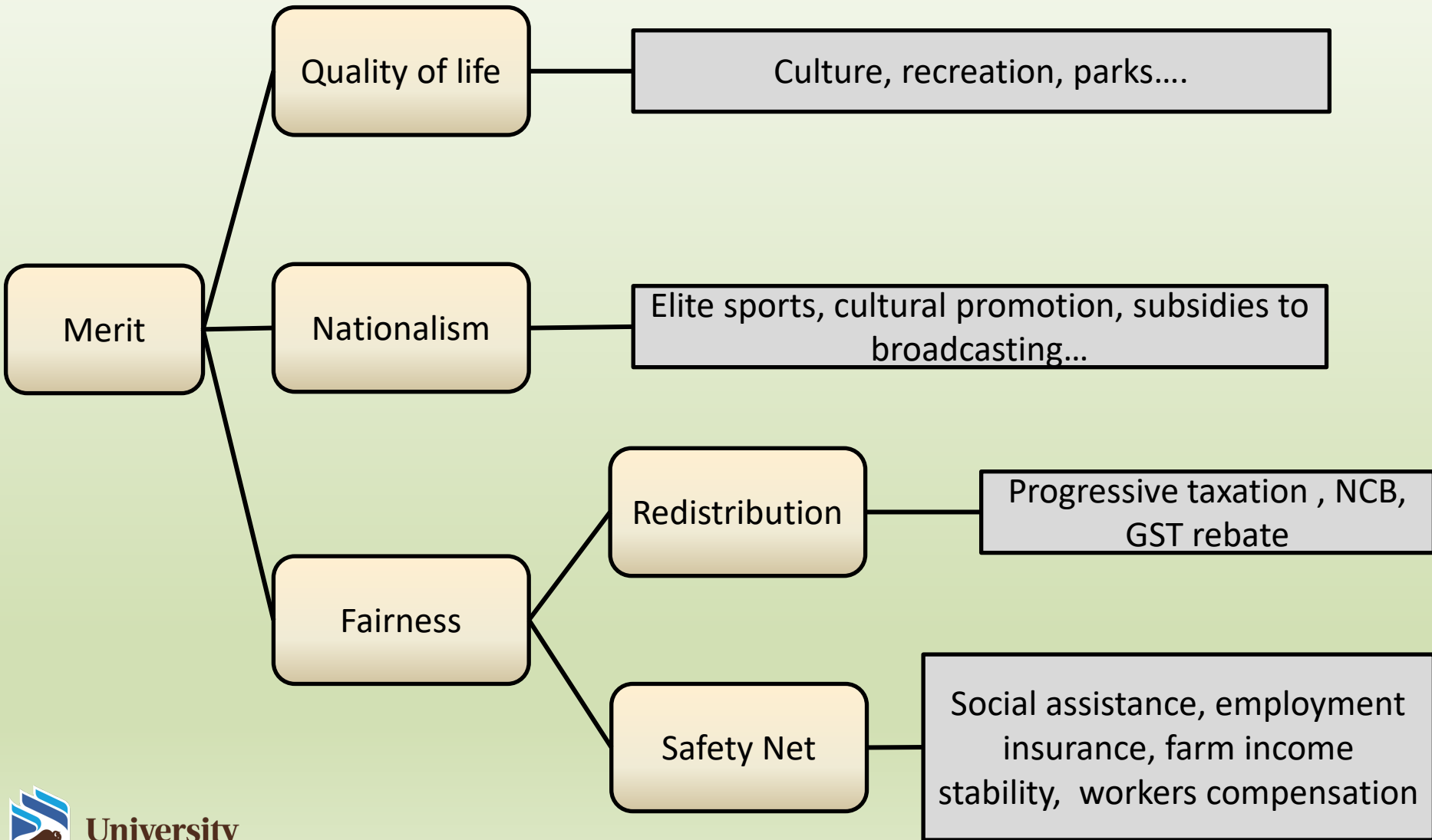


Figure 2: Policy map (Equity Goods)



Common Policy Instruments

Economic	Legal	Persuasive/ Behavioral	Information/ Feedback
Grants	Regulation	Nudges	Monitoring
Grants and contributions	Agreements	Institutional changes	
Contracts		Social marketing	
Taxes			
Subsidies			
Tax Expenditures			

- All these instruments are “economic.”
- [Tax expenditures](#) are stealthy and often not seen as policy, but a tax cut to assist some “deserving” group or an inducement to encourage specific behaviour (Tax credits for charitable donation)
- **Tax expenditures** are a common way to provide benefits to middle and upper income households for political gain.
- Any reduction in tax for one groups, means the general taxpayer (present or future) must pick up the shortfall.

Mechanics of Specific interventions

Taxation, fees and penalties; Taxes have a dual role... to raise funds for public purposes and to guide behaviour (green tax)

- *Positive taxes* (transfers from citizens to government) vs. *negative taxation* (from government to citizens)
- Positive taxes discourage behaviour (taxes on cigarettes) and negative taxes encourage behaviour (subsidies to the arts to lower ticket

Tax incidence

The burden of a tax rarely falls solely on the payer. A tax on business may be shifted forward to the consumer (price increase) or back to supplier (price renegotiation). The ability to shift taxes depends on specific market conditions and the elasticity of final demand (shift to the consumer) and the options the business has in renegotiating inputs/sources (shift to the supplier).

Progressive taxes fall proportionately more on higher income individuals.

Regressive taxes fall proportionately more on low income households.

Rent-seeking

- Rent-seeking is an attempt to gain economic advantage through social or political manipulation as opposed to creating a selling something unique
- Licensing of doctors and other professions is a typical example as is supply management.
- Advocates of these privileges argue that they ensure quality and prevent cheats from preying on the public. The license is promoted as an indicator of quality and reduces the time needed to investigate the qualifications of the supplier.
- Rent seeking is often seen by lobbying to capture privileges/exemptions from stemming from government regulation or seeking potential subsidization.

Polaris Institute, shows key companies and associations of the energy industry met frequently with politicians and senior bureaucrats in recent years to craft common messages and discuss regulatory changes.

The report shows that in just one year to this September (2016), senior industry officials held 791 separate meetings with ministers, members of Parliament and officials even as the federal government was pursuing major regulatory changes that critics claim amount to a gutting of environmental protection.

Lead researcher Mr. McCarthy noted that over the course of that one year, some 52 of those sessions were with members of cabinet, the most frequent visitors to the government being from the **Canadian Association of Petroleum Producers, TransCanada Corp., Imperial Oil Ltd.;** the **Canadian Energy Pipelines Association, Suncor Energy Corp.** and **Enbridge Inc.**

Mr. McCarthy said the energy industry's apparent widespread engagement with government provides ammunition for critics who accuse the government of favouring the resource sector at the expense of the environment. Report co-author **Richard Girard** said, "To us, this shows a fundamental shift in our democracy from government working for the people to government working for private interests such as industry" (Globe and Mail, B1, 04 December 2012)

Who/what is the Polaris Institute?

<http://www.polarisinstitute.org/>

Natural Monopoly

- The term “natural” monopoly applies to industries that require high levels of capital investment, such that a single firm dominates (e.g., energy utilities).
- As a firm expands output, the average cost declines, which discourages new entrants from entering, since they will have small market shares and high costs.
- The incumbent (natural monopolist) can choose to lower prices temporarily, still making a profit while preventing the new entrant from becoming established.
- Once the new entrant is rebuffed the incumbent firm raises prices; governments typically elected to regulate rates and/or profit. In other settings, new entrants understand this cost structure and do not bother trying to set up business.

Caution: Technical change will typically extinguish the basis for a natural monopoly. The best recent example is telephony. Also imagine what will happen to energy monopolies, when solar energy increases efficiency ten-fold and each house can “come off the grid.”

Spending

- **Expenditures on goods and services**
 - *Direct resource commitments* on goods (public housing, vaccination)
 - *Direct resource commitments* on services (consumer information, training)
- **Tax expenditures**
- **Grants/contributions/contracts** to third parties to perform services

The most recent budgets in Canada and the US, focus on spending as the primary macro-economic policy.

Evaluators rarely become involved in evaluating macro-policy ... this is the preserve of economists

Laws, psychology, and promotion,

- **Legislation** is a general framework for how citizens conduct themselves (smoking bans, criminal code) and requires political assent.
- **Regulation** modifies elements of legislation (changes to the speed limit) and can be completed by administrative fiat.
- **Behavioural policy** seeks to influence behaviour by using psychology and “nudges”
- **Social marketing to promote a goal** (articulation of goal or intent; guidance on preferred behaviour)

Project example 1: investment in human capital

- The decision to acquire training or education can be analyzed with the same conceptual tools as decisions to invest in other assets.
- If acquiring skills is costly, when is it worth doing?
 - Investment requires comparing costs incurred today with the value of future benefits.
 - The “present value” concept is invaluable because benefits may be many years in the future, while costs are immediate.
 - Present Value = (Amount of Future Payment) / discount factor.

Example*

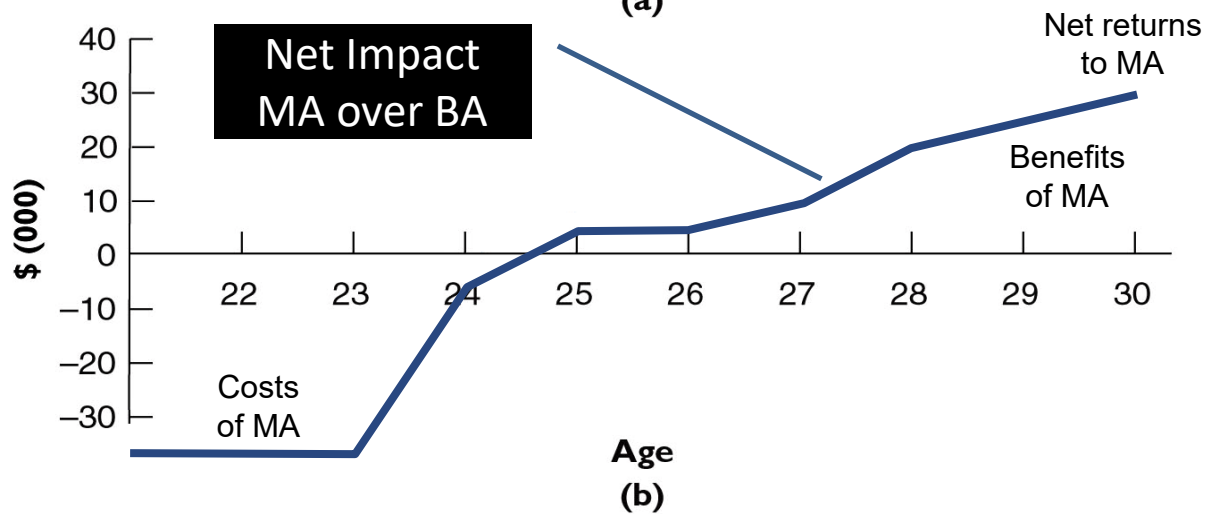
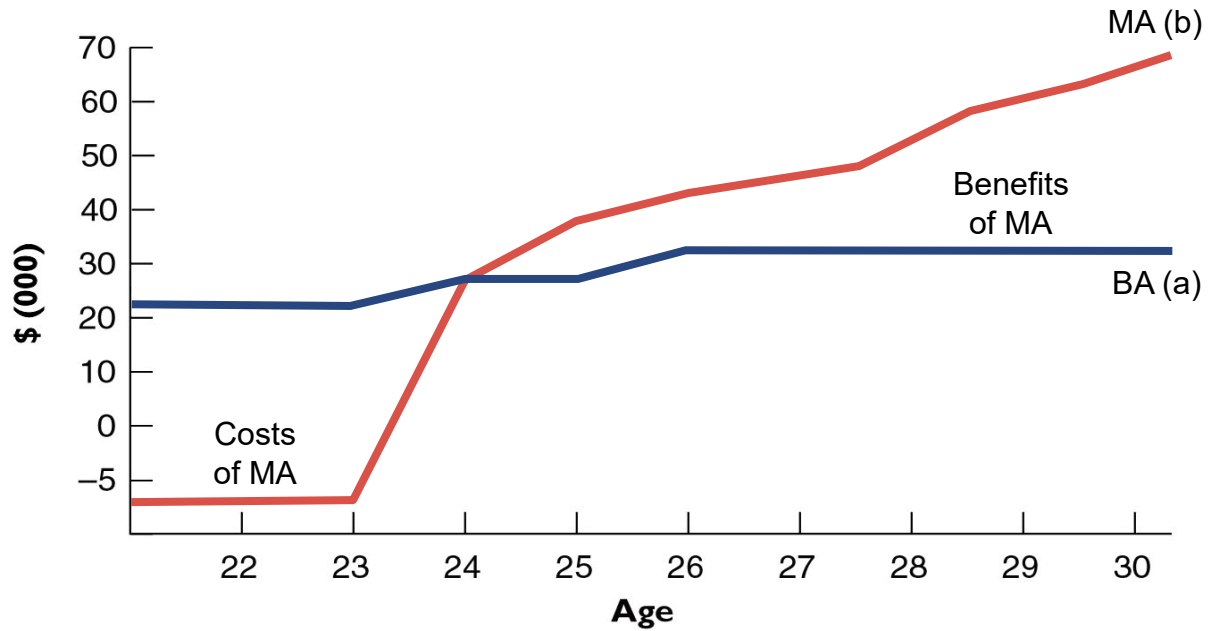
- Mary is 22 and has just graduated with a BA in economics.
- She now has a job as a local manager for a major corporation.
- Out-of-pocket costs of the MA are \$8000 per year for each year.
- In addition, she would have to forego her current earnings while in school (opportunity cost).
- The question is, do the future benefits repay the early costs?

The Returns of an MA in Economics

Costs are incurred during the period an MA is being acquired. Once acquired, the MA provides benefits over subsequent working life.

Counterfactual

Economic evaluation requires a counterfactual – a state of affairs without the program. In this instance the returns to a BA is the counterfactual. The net return of the MA is negative and then growing after the degree is complete.



Project example 2: National Child Benefit

Origin

In 1997 the UN stated that Canada had a very high number of children living poverty. This galvanized the first ministers (the Prime Ministers and premiers of each province and territory). They designed the National Child Benefit Supplement as an add-on to the prevailing child tax credit.

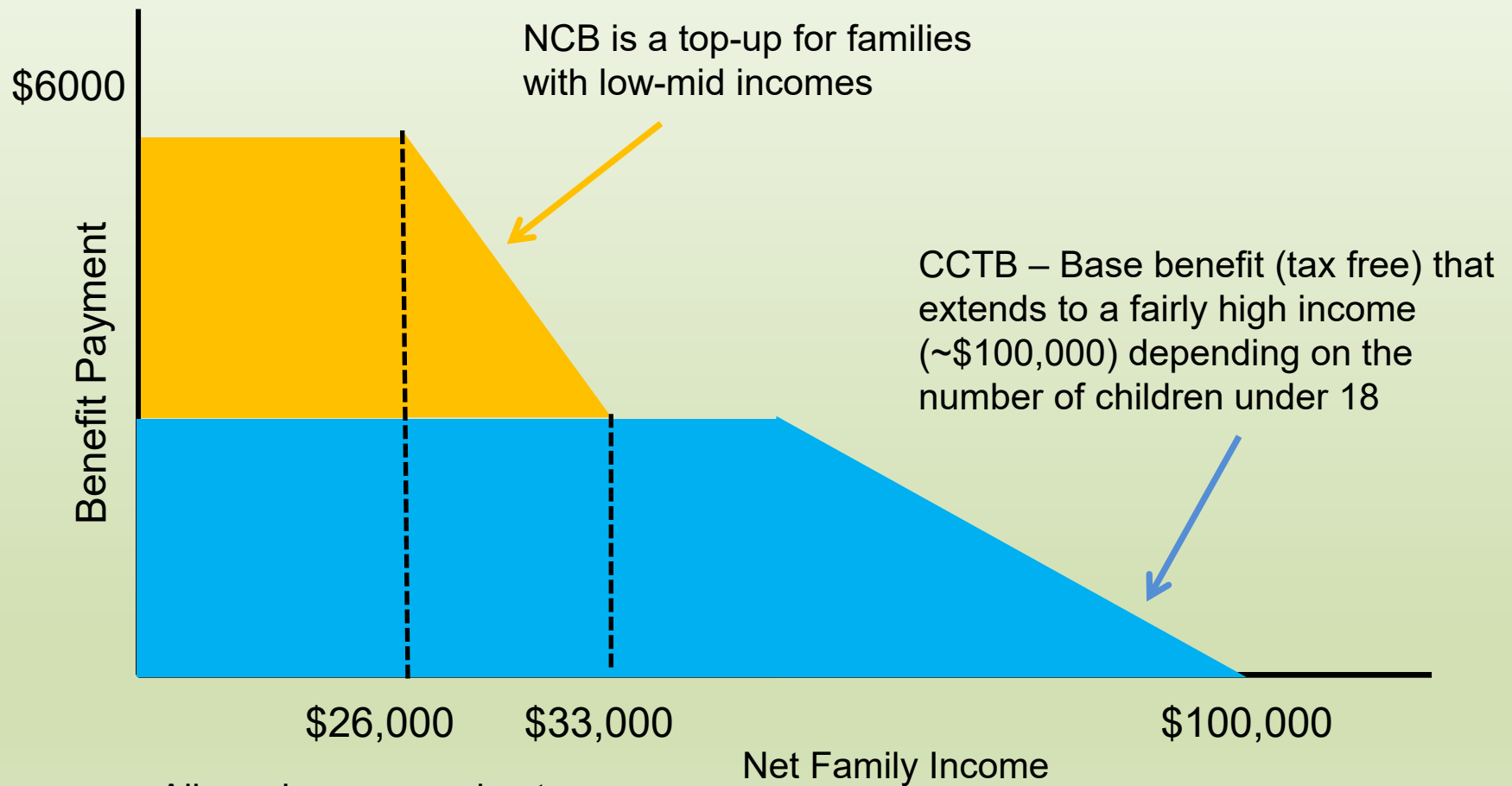
This is an example of information triggering a policy response.

National Child Benefit (NCB)

The NCB Initiative is a joint initiative of federal and provincial/territorial governments intended to help prevent and reduce the depth of child poverty, as well as promote attachment to the workforce by ensuring that families will always be better off as a result of working.

It does this through a cash benefit paid to low-income families with children, a social assistance offset, and various supplementary programs provided by provinces and territories.

Project Example 2: Tax profile of the National Child Benefit (two children < 18)



All numbers approximate

Project example 2: Mechanism of National Child Benefit

