

14.472 Public Finance II

Redistribution: Cash vs. In Kind V_c:

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In-kind transfers are widespread and large

Table 1: Public Expenditures on Four In-Kind Programs, Selected OECD Countries

	Health %GDP 2002	Housing %GDP 2001	Child Care %GDP 2003	Education %GDP 2003	Active Labor Market %GDP 2001
Australia	6.1	0.1	0.4	4.7	0.1
Austria	7.6	0.1	0.6	5.1	0.1
Canada	6.7	..	0.2	5	0.4
Denmark	7.3	0.7	1.6	7.3	0.2
France	7.9	..	1.2	5.2	0.4
Germany	8.4	..	0.4	4.2	0.3
Greece	4.6	..	0.4	3.9	
Ireland	5.4	0.5	0.2	4.3	0.4
Japan	6.5	..	0.3	3.3	0.1
Netherlands	5.6	0.4	0.5	4.7	0.4
New Zealand	6.4	0.6	0.4	6.5	0.1
Norway	8.2	0.2	1	7.1	
Portugal	6.5	..	0.8	5.3	0.1
Spain	5.2	0.2	0.6	3.8	0.4
Sweden	7.7	..	1.2	7	0.2
United Kingdom	6.4	1.5	0.6	5	
United States	6.6	..	0.6	5.3	0.2

Source: Currie and Gahvari (2008)

In-kind transfers

- Definition (Currie and Gahvari 2008) " physical provision of a good, targeted subsidy programs in which government pays some fraction of the market cost of the good, and vouchers"
- Health insurance: Medicare and Medicaid; tax subsidy for employer provided health insurance and subsidies on health insurance exchanges
- Nutrition: e.g. Food stamps, School lunch, WIC
- Housing: e.g. Section 8 vouchers, public housing
- Education: public primary / secondary and post secondary; financial aid for post-secondary
- Job training assistance

- This lecture: Brief discussion of economic rationales for in-kind transfers
 - Also introducing another approach to empirically valuing in-kind transfers based on covariance of transfers with proxies for marginal utility of consumption (e.g. consumption; health etc)
 - NB: a cross sectional test that doesn't require causal effects of transfers! But does require credible proxies for MU
 - Will see more of this in Synthesis Unit VI (valuing Medicaid)

- Basic economics says cash dominates in-kind
 - benefits of cash superior in terms of recipient utility, since in-kind constraints recipient behavior
 - Costs of in kind likely higher:
 - Government unlikely to have an efficiency advantage in production
 - moreover administrative costs of delivering in kind likely higher (caveat: corruption / theft concerns in developing countries)
- So why ever have in-kind transfers?
 - Several rationales for why benefits of in-kind may exceed cash

Potential rationales for in-kind transfers based on SWF:

- Paternalism
 - Stronger: Individual consumption choices fail to maximize own utility
 - Weaker: Agency problems within family - family doesn't maximize child well being
- Merit goods (Musgrave 1959)
 - Want to encourage consumption of certain types of goods
 - Society cares about certain consumption goods for poor over and above effect on poor's utility (e.g. healthcare, food)
 - Recall Kaplow critique of non-individualistic social welfare functions
- "Consumption externalities"
 - Interdependent preferences - my utility depends on your consumption
 - Preserves individualistic social welfare function
 - How distinguish empirically from merit goods?

Other potential rationale for in-kind transfers

- Political economy (easier to “sell” this form of redistribution)
 - perhaps because of paternalism, merit goods, consumption externalities and/or commodity-specific egalitarianism
- Market failures
 - e.g. Insurance may be valued at more than cost and may not be provided by unregulated market (market failures like adverse selection)
 - e.g. liquidity constraints may interference with efficient allocation of elementary school education (can't borrow against future human capital)

Other potential rationales for in-kind transfers (con't)

- **[Will Discuss]** Samaritan's dilemma (Coate 1995)
 - Applications?
- **[Will Discuss]** Price / pecuniary effects (Coate et al. 1994)
 - Applications: Food (Cunha et al. 2018); housing (Blanco 2022, Diamond and McQuade 2019)
- **[Will Discuss]** Insurance against commodity price risk
 - Application: Rice (Gadenne et al. 2021)
- **[Will Discuss]** Screening or self-targeting (Nichols and Zeckhauser 1982)
 - Applications: Medicaid home care (Lieber and Lockwood 2019); Food (Banerjee et al. 2022)

- Parable of the Good Samaritan
- Buchanan 1975: The Samaritan's dilemma
 - Lack of commitment creates a time consistency problem
 - Examples:
 - Airplane hijacking
 - People who have refused to work and are now starving
 - Mother spanking child

Samaritan's dilemma as a reason for in-kind transfers

- Coate (AER 1995)
- Classic public finance explanation for government transfers:
 - altruism + free-riding → under-provision of private charity and scope for government transfers to improve social welfare
- This paper: altruism provides an efficiency rationale not only for transfers but for **in-kind** transfers of insurance
- Actors unable to commit not to provide aid in certain situations - eg natural disasters, medical illness
 - even if government could commit, private actors cannot
 - distorts individual behavior regarding purchase of insurance or ex-ante mitigation efforts
- Provides rationale for government in-kind transfers
 - Cash transfers not sufficient (see e.g. Charles Murray 2016 on UBI)

Comment on Coate: Dearth of empirical work

- Empirical evidence of impact on private behavior?
 - Some for eg reduced private incentives to reduce flood risk
 - Reduced incentives to purchase private health insurance??
- Even if does not distort private behavior, is there is an efficiency argument for formalizing implicit commitments?
 - this is an argument frequently made for universal coverage

Samaritan's Dilemma and Universal coverage

- If we are going to respond ex post in crisis, efficient to formalize this up front
 - Not sure there is academic work here (theoretical or empirical)
 - But a lot of agreement across the political spectrum
- Conservatives: Romneycare; Charles Murray; Hayek
 - “once it becomes the recognized duty of the public to provide for the extreme needs of... sickness... irrespective of whether the individuals could and ought to have made provision themselves... it seems an obvious corollary to compel them to insure (or otherwise provide) against those common hazards of life... [otherwise] they would become a charge of the public” - Hayek, The Constitution of Liberty
- Liberals: RBG on 2010 Obamacare mandate; Swiss 1996 health insurance mandate

Price / pecuniary effects of in-kind transfers

- Cash transfers or subsidies for specific goods increase demand for normal goods, which increases their price
- direct in kind transfers (public provision) similarly increase demand but also increase supply which lowers prices
 - e.g. if provide food in kind, this increases supply of food
 - relative to cash transfers, in-kind transfers can therefore be price reducing
 - because of supply effect, can be more effective potentially than cash transfer for a given government expenditure

Pecuniary Effects: Empirical Evidence

- Cunha, De Giorgi and Jayachandran (2018 Restud) "Price Effects of Cash Versus In-Kind Transfers"
- Re-examine a 2003 RCT in rural Mexico that randomly assigned 200 villages to receive either boxes of food (trucked into the village), equivalently valued cash transfers, or no transfers
 - Original purpose: study impacts on food consumption and malnutrition
 - Very nice example of re-purposing an empirical setting (**we should do more of this!**)
- Find evidence of pecuniary effect: food prices significantly lower under in-kind transfers compared to cash transfers
 - Relative to control, in kind transfers reduced food prices by 4 percent, cash transfers had a positive but negligible effect on prices
 - Price effects larger in remote villages (bigger supply side effect)

Pecuniary Effects: Housing

- Construction of public housing
 - Desmond (2016 "Evicted") claims national association of realtors lobbied for vouchers over public housing because of concerns that public housing would reduce rental prices
 - "In policy circles, vouchers were known as a 'public private partnership'. In real estate circles, they were known as 'a win'."
 - Demolition of public housing increases house prices (Blanco 2022)
- Diamond and McQuade (JPE 2019) Study Low Income Housing Tax Credit
 - Funds multifamily housing developments for projects that will meet low income occupancy requirements
 - Find positive externalities on low income neighborhoods: increases house prices, lowers crime, and attracts racially and income diverse populations
 - In high income neighborhoods it causes house price declines and attracts lower income households

Insurance Against Commodity Price Risk

- In-kind transfers provide insurance against commodity price risk
 - Gadenne, Norris, Singhal and Sukhantar (2021)
- Optimal transfers: price-indexed cash transfers to equalize marginal utility of income across price states
 - Note: not equalizing consumption; may want to substitute in response to changes in relative prices
 - Often infeasible because local prices are difficult to observe at high frequency

Commodity Price Risk

- Infeasible first best: price-indexed cash transfers to equalize marginal utility of income across price states
- Compare second best alternatives: price-invariant cash transfers and in-kind transfers
 - in kind transfers preferred as long as the high marginal utility states are also high price states (and households are inframarginal)
- Empirical application in India
 - Key challenge: measuring marginal utility of income
 - Cool proxy: household falling below minimum calorie requirement (MCR)

- Negative covariance between price of rice and caloric intake:
 - 10% increase in market price of rice associated with a 1.1 percentage point decline in households meeting MCR
- Expansion of India's in-kind food transfer program reduces sensitivity of MCR to market prices
 - Consistent with in kind transfers providing insurance against food price risk.

Screening Reminder

- Want to redistribute based on an unobserved characteristic (e.g. ability). Key insight:
 - If demand for specific goods is correlated with unobserved characteristic, can transfer more efficiently by sacrificing productive efficiency
 - Exploit single crossing feature: people of different ability have different marginal utility (disutility) from specific goods
 - Example: in kind vs cash transfers
 - General economic view: cash dominates (allow people to optimize unconstrained).
 - But N-Z argue that in kind vs cash can improve self-targeting if increases cost of participation more for high ability than intended recipients (low ability)
- Basic idea: Tradeoff between productive efficiency and targeting efficiency
 - Design of optimal second best transfer policy may involve sacrifice of productive efficiency

Screening using cash vs in-kind transfers

- Lieber and Lockwood (2019 AER) "Targeting with in-kind transfers: evidence from Medicaid home care"
 - Another nice example of repurposing a previously done RCT!
- Consider the government's choice between in-kind and cash benefits.
 - Government budget can be allocated across a cash benefit and a subsidy to some good.
 - Analyze the welfare impacts of a budget-neutral shift toward in-kind benefits that increases the subsidy rate while decreasing the cash benefit to make it budget neutral
- Use framework to analyze costs and benefit of in-kind vs cash

Screening using in kind vs cash

- Basic tradeoff: cash is more valuable but in kind may be better at targeting transfers to higher-marginal utility states
- Cost of in kind: moral hazard
 - Subsidy to good distorts consumption of good above efficient point (where $WTP = SMC$)
- Potential benefits of in-kind: targeting
 - Across individuals: unobserved value of formal care (e.g. cost of informal care; unobserved nature of health condition)
 - (new focus of theirs) Within individuals across states: health not verifiable; by making the transfer in kind, may be better able to target poor health states
 - This applies to in kind transfers of insurance
 - e.g. don't pay lump sum for hip replacement bc want to target people who actually need it.

Application: Medicaid home care

- Medicaid home care expenditures are large and growing fast.
 - Is in-kind preferable to cash?
- Framework guides empirical objects needed

Application: Medicaid home care

- Price elasticity of demand for home care (determines magnitude of moral hazard)
 - Estimate using RCT from Cash and Counseling experiments - randomized into either traditional in-kind home care benefit or near-cash
 - Find substantial moral hazard: home care consumption doubles with in-kind vs cash.
- Heterogeneity in demand for formal care within eligibility population
 - Look at distribution of formal care consumption among eligibles. Find substantial residual variation conditional on even rich observables.
 - Suggests targeted cash benefits would not have great targeting properties (a lot of residual heterogeneity)
- Examine targeting of in-kind provision by looking at covariance between benefits paid out and proxies for marginal utility (e.g. health)
 - Find in-kind sharply concentrates benefits on small fraction of benefit-eligible states in which people are sicker, have worse informal care options, and have greater demand for formal care

Findings

- Substantial moral hazard - in kind provision significantly reduces value of benefits (vs cash)
- But substantial improved targeting - in kind provision concentrates benefits on high marginal utility states of the world
- On net: in kind benefits are much less valuable to recipients but cash leaves much of the risk uninsured (can't target the high marginal utility states)
- "Under a wide range of assumptions within a standard model, the targeting benefit of in-kind provision exceeds the distortion cost"

Application: Food vs Food Stamps

- Banerjee et al. (2022): "Electronic Food Vouchers: Evidence from an At-Scale Experiment in Indonesia"
- Compare in-kind food transfers vs vouchers to purchase food on private market
 - US analog: Trump proposal for "Food Boxes" vs Food Stamps / SNAP
- Conceptually:
 - vouchers more flexible (in kind may constrain consumption choices)
 - in kind may reduce relative prices (supply effects)
 - if in kind good is inferior, may improve targeting via self-selection
 - Administrative considerations:
 - voucher may be easier to refill than moving millions of tons of rice
 - voucher may have less leakage (food is divisible voucher is not)

Food vs Food Stamps

- Randomized entire districts (average population 500,000) to switch from existing in-kind food transfer to electronic food vouchers
- Findings suggest that change from in-kind to voucher substantially changed program impact
 - Vouchers were much more targeted at poor, despite higher quality food purchased and greater fungibility of aid
 - Vouchers cut down on leakages from sub-dividing and spreading in-kind food aid across village

Economic rationales for in-kind transfers: remarkably little empirical evidence

- Samaritan's dilemma
 - Evidence of impact on behavior?
- Targeting: Better at screening than cash?
 - Only recently starting to get some empirical evidence; could use more!
- Pecuniary effects - supply side effect on local prices
 - Ditto!
- Alternatively, can ask directly: In-kind valued more or less than cash?
 - How to empirically value in-kind transfers?
 - Will look at in health insurance (Medicaid) context after the next lecture on takeup