

	• Fines or incentives can push individuals to take some action that they themselves consider desirable but perpetually postpone taking • Government or NGO should make the option that it thinks is best for the people the default option. Ex. Piped water comes chlorinated, people don't need to remember to buy chlorine and put correct number of drops into water • Key challenge is to design 'nudges' tailored to the environment of developing countries • The poor procrastinate and underestimate the benefits of immunization. Suffer from procrastination, lack of information and weak beliefs Health seeking behaviour is important 1. Psychological sunk cost (The low hanging fruits are cheap so people think that they are of poor quality. Without education, people don't understand the use of it) 2. Wrong beliefs that medicine has to be delivered directly to the blood (a lot of imperfect and incorrect information) 3. Weak beliefs and necessity of hope (reliance on health providers for minor illnesses and not health prevention, seeking traditional healers for major illnesses as some treatments are too expensive) 4. Procrastination and time consistency (incomplete vaccination cycles as benefits are valued in the future) 5. Convincing and nudging are important for poor individuals to understand full benefits and overcome procrastination (systemic nudges not available in developing countries) -TAMTAM (Together against malaria) actually shown that when people are given mosquito nets for free, they actually use it properly. People who got the free mosquito nets are willing to buy them the next time, showing learning. -Health seeking behaviour is the same between people in poor and rich countries. Just that people in developed countries have a lot of default options and clean water gets piped in so they don't have to remember to add chlorine. Immunizations are compulsory in rich countries if not children cannot attend school. ➤ Invest in educating mothers ➤ Invest in clean water, sanitation and reduce costs for the poor ➤ Well designed incentives ➤ Make full cycle immunizations compulsory
Gertler – Boyce	Incentive based welfare: Progresa is a unique anti-poverty program in Mexico that combines a traditional cash transfer program with financial incentives for families

- Expansion of schooling alone, without an improvement in the pace of learning, the steepness of the grade learning profile, can result in only very limited progress towards educating developing-country youths
- When little learning happens per grade, completing more and more grades just don't help that much in achieving universal capabilities
- At average rate of progress on EI questions in India, it would take 16 years of schooling to get 90% of students producing correct responses on rudimentary reading and arithmetic skills
- Flat learning profiles mean that expanding schooling is no guarantee of reaching or making substantial progress forward, a learning goal
- Grade attainment profile look at 15 to 19 years old and give a picture of a cohort's attainment history – whether students enroll, how they progress across grades, when they finish schooling
- This reveals proximate contributions to lack of universal grade completion: Mali is due to access problem, many didn't enroll in schools. Ghana faces low retention rate and high dropout rate.
- Grade attainment profiles are taken from household surveys so they can show grade completion differences by socioeconomic conditions
- Continuing the momentum for universal primary education is a necessary condition for learning but expansion in schooling without improvement in learning, will not adequately equip children for their future
- Flat learning profiles mean that reaching proficiency takes too long
- In Tanzania, by end of grade 7, only 41% of the students are proficient in the 3 fundamental areas. At that pace, it takes 13 years to get 90% of students performing at grade 2 level. Achieving universal secondary schooling will not produce universal grade 2 education.
- Grade attainment profile shows significant dropout rate when students move from basic to secondary education so empirical learning profile shows a jump in proficiency across grades because those who knew less dropped out and not because children learnt
- If Uttar Pradesh can achieve same empirical grade learning profile as Himachal Pradesh, so that children learned more per year, cohort mastery in division jumps from 54 to 76%. This is double the gain in learning from increased enrollments
- Shallow learning profile → students make little progress in learning per year → expanding years of schooling doesn't move them far ahead to meeting a learning goal
- Countries with higher initial performance get more out of expanding grade nine attainment
- In many countries, not that many children already make it to grade nine so potential gains from enrollment alone are limited
- Only in already quite high performance countries like Turkey would enrolment expansion alone get the country significantly more than halfway to a learning goal

- Combination of higher grade attainment and raising learning profile is the most effective in helping students meet a learning goal
- Schooling has to do with something other than sitting in school
- If relationship between school learning objectives and time in school is weak, expanding time in school doesn't help with education goal
- Education systems need to measure and work to achieve their education goals – whatever they are
- Both quantity and quality are essential
- Attainment deficits around the world are increasingly the result of students dropping out
- Strategies to meet attainment goals should be focused on keeping kids in school and progressing through grades
- Enrolment is not the major challenge to universal grade nine attainment in most countries
- In developing countries, going to school may not be a pleasant experience. Being unable to follow the lessons, getting pinched or beaten, and not learning make school unpleasant at best.
- Single biggest factor associated with test scores was whether students found school 'boring and not useful' or 'fun and useful'
- Factors that pull children out of school include poverty, need to work, marriage
- Push factors include the fact that children did not like school
- Improve learning will keep more kids in school longer
- Eliminating charges for school and conditional cash transfers programmes have been successful in expanding enrolment but not shown to improve learning
- Kenya adopted a free primary education policy and abolish all fees in government-controlled schools but nearly all the net increase in enrolment is in private schools
- Parents think that quality had gone down since many of the fees were locally controlled and used for school inputs so there is weak demand for govt controlled schools
- Conditional cash transfers (CCTs) induce children to go to school by conditioning household's receipt of targeted transfers on enrolment or attendance ex. PROGRESA a.k.a. Oportunidades
- CCTs have no impact on learning at all
- More is not enough. More schooling is insufficient in itself to answer the need for improved basic education
- Learning profiles by grade in developing world today are too flat
- Many countries have met the Millennium Development Goal target but do not provide adequate education
- The world needs more education
- If current pace of progress remains the same, most developing countries will take centuries to reach acceptable levels of student learning
- No developing country has an evidence-based plan to achieve significant progress in

	• Improvements in mortality has significantly raised net rate of reproduction but in future forecasts, mortality changes have less effect since nearly all the girls live through their child-bearing years. Even in India, a newborn girl has 82% chance of living to age 45 • Hence, potential improvements in life expectancy will have negligible effect on net rate of reproduction in developed countries and small effect on developing countries • If number of births does not change but people live longer then more people will be alive at any given time • Forecasts of fertility are often made relative to replacement fertility – level of fertility that is consistent with a constant population size in the long run • In most developed countries, there is still some mortality before women's childbearing years and slightly more boys born than girls so TFR consistent with zero population growth is higher than 2.0 • Replacement rate of fertility is roughly 2.1 children per woman • UN predicted that in all countries in the world, TFR will move towards replacement fertility – in almost all countries TFR will be exactly 2.1 by year 2050 • Such an outcome means: fall in fertility in developing countries and rise in fertility in developing countries • In year 2005, TFR for most developed group of nations is 1.6 • Japan, Germany and Canada has very low TFR and in absence of large scale immigration, low fertility rates will translate to shrinking population • Low fertility will also raise the average age of population • Nothing say that the average parent will want 2.1 children • People's preferences change and government can increase incentives to have children (subsidized day care and schooling) • Furthermore, there is the tempo effect: rise in average age of child-birth. • A delay of x% of a year of childbearing will reduce TFR by x% of its original level • Age of childbearing is indeed rising in developing countries but tempo effect can only account for small part of fertility reduction • Future course of population in developing countries will depend on how quickly fertility declines continue in these countries • For developing world as a whole, TFR has fallen from 5.5 to 2.9 but uneven decline in regions (China's decline was large but Sub-Saharan only a little) • A country with NRR = 1 will not necessarily have a zero population growth straight away • There is demographic momentum. If no. of women in their reproductive years rises, number of babies born will rise even if rate at which women have babies remain constant. • Demographic momentum tend to be high in countries with high fertility rates. If TFR is high to begin with, even if there is fall in TFR, the demographic momentum will keep population growth high • Useful measure of demographic momentum is the fraction of population aged under 15 • Countries with a large fraction of population under age 15 are guaranteed to have rising population for next decades due to increase in no. of women in childbearing years • Over the very long run, most important determinant of population growth is fertility but we have little basis for speculating • Rostow say that there is a great spike in world population and after 200 years, there is a roughly symmetric reduction in population growth back to zero • We know extremely little about the long-term path of population
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	• Growth of world population is forecast to be half as rapid in next 50 years • Under Solow model, slowdown in population growth rate increases steady state output per worker • Even as population growth rate slows, level of population continue to rise • Ageing of world's population: median age of world population is set to rise by 10 years to 36.2 years over the next 50 years • Ageing results from declining mortality and declining fertility • In more developed countries, there will be 1.7 times as many elderly as children in year 2050. In less or least developed countries, children will still outnumber the elderly • $\text{GDP per capita} = \text{GDP per worker} \times (\text{no. of workers/population})$ • How productive a country is, we look at GDP per worker • How well off a country is, we look at GDP per capita • Children and elderly have low rates of labour force participation, so fraction of population that works is greatly influenced by fraction of population in working age • Fraction of population in working age in developed countries is forecast to fall whereas in least developed countries, this fraction is forecast to rise • $\text{Growth rate of GDP per capita} = \text{growth rate of GDP per worker} + \text{growth rate of working-age fraction of population}$ • As society ages, crime rates may fall but so do dynamism of the society • Distribution of world's population. In 1900, Europe's population is 3 times than of Africa • But by year 2000, the 2 continents are of equal size due to fall in fertility in Europe and rising life expectancy in Africa • By 2050, Africa is projected to be 3 times as populous as Europe • Asia's share of world population is roughly constant at about 67% • Developed countries: shrinking population. Developing countries: combi of slow falling fertility and demographic momentum will have large increase in population • Shifts in relative population size will have immense political and economic ramifications • Countries with expected highest population growth are also the poorest so share of world population living in currently developed countries will fall • Composition effect: effect of population redistribution (balance of population shifting to poorer countries) reduce average growth rate of income in the world • Fraction of world's population living in rich countries may not fall because countries can get richer over time • Overall balance of rich and poor in the world depends on which force is more powerful: higher population growth rates of poor countries or income growth taking place in these poor countries Conclusion ➤ World population is forecast to grow to about 9.4 billion by year 2050 ➤ Growth rate of world population will slow down ➤ Balance of world population will shift away from currently developed countries ➤ Population of developed world will age significantly ➤ Not certain whether fertility in developing countries will fall to replacement rate and whether fertility in developed countries will rise to replacement rate ➤ Slower population growth is good for economic growth due to less capital dilution ➤ However, ageing population will lead to increase in fraction of elderly people and consequent
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	• If probability of success and therefore expected urban income is still higher than rural income, it is perfectly rational for the migrant to try his luck in the urban area even if urban unemployment may be extremely high • Considering many migrants are between age 15 to 24, decision to migrate depends on basis of longer term, more permanent income calculation • Longer time horizon: If migrant anticipates low probability of finding regular wage employment in initial period and expects this probability to increase over time as he expands his urban contacts, it is still rational for him to migrate • As long as present value of net stream of expected urban income over migrants' planning horizon exceeds that of expected rural income, decision to migrate is justifiable • Instead of equalizing urban and rural wage rates, Todaro model's rural-urban migration acts as a force to equate rural and urban expected incomes • Expected incomes are determined in terms of both wages and employment probabilities so it is possible for migration to continue despite sizeable rates of urban unemployment • Unemployment equilibrium between urban expected wages and average rural income • Although it is privately rational from a cost-benefit perspective for an individual to migrate to the city despite high unemployment, it can be socially costly • If we incorporate different levels of human capital, we can see why a higher proportion of rural educated migrate than uneducated since they have a better chance of earning even higher urban wages than unskilled migrants • Migrants from same rural region tend to settle in common cities • Earlier migrants create positive externalities for later potential migrants by lowering cost of moving and provide them with info on available jobs (probability of unemployment lower) • Search for employment as a selection into migration decision and forward looking behaviour can be incorporated into this equilibrium migration model Todaro migration model ➤ Assume wages in agricultural sector reflect marginal productivity and wages in urban sector are institutionally set ➤ Migration is stipulated primarily by rational economic considerations of the relative benefits and costs, mostly financial and also psychological ➤ Decision to migrate depends on expected rather than actual urban-rural real wage differentials ➤ Expected differential is determined by actual urban-rural wage differential and probability of successfully obtaining employment in urban sector ➤ Probability of finding an urban job is directly related to urban employment and inversely related to urban unemployment rate ➤ Expected wage in urban sector = ratio of labour employed in urban sector to job seekers multiplied by the wage institutionally set in urban sector ➤ Migration rates in excess of urban job opportunity growth rates are not only possible but rational and even likely in face of wide urban-rural expected income differentials ➤ High rates of urban unemployment are inevitable outcomes of serious imbalance of economic opportunities between urban and rural areas in most underdeveloped countries ➤ Ex. Mexico faces this issue too with 70% of the population living in urban areas now as rural migrants pour into cities in search for jobs Policy implications
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Microfinance

Armendariz-Morduch 2010

Microfinance = Innovative financial products offered by a spectrum of institutions to help disadvantaged individuals esp women

Financial products are usually small loans (microcredit) or micro savings and insurance

Microfinance is important to economic development because over 1 billion households experience volatile income and face credit and saving constraints preventing them from engaging in investment activities

Main idea

- the poor are talented and entrepreneurial
- need a loan to set up a business
- do not have collateral
- lend the poor money so that they can invest and repay

Over the past 40 years, vast majority of MFIs report repayment rates exceeding 98% and there are millions of MFIs even in developed countries.

Group lending

- Microfinance institutions inspired by Grameen Bank
- Loan officer visits villagers and records individual transactions in his ledger, noting weekly instalments on loans outstanding, savings deposits and fees
- Loan officer dispenses advice and makes arrangements for customers to obtain new loans from branch office
- Process is done in public to make it transparent
- Group lending is synonymous with micro finance
- Group lending refers to arrangements by individuals without collateral who get together and form groups to obtain loans from a lender
- Loans are made individually to group members but all in the group face consequences if any member runs into serious repayment difficulties
- Fundamental idea of group responsibility or joint liability with regular group meetings
- Other microfinance institutions such as BRAC in Bangladesh, BancoSol in Bolivia
- Weekly group meetings offer convenience to the villagers, the bank comes to them and any problems can be resolved on the spot
- Bank offers the same convenience as local moneylender
- Transaction costs are greatly reduced for loan officer since multiple savings and loan transactions of 40 people can take place in a short block of time
- Joint liability mitigates moral hazard, adverse selection and enforcement problems
- Disadvantages: groups collude to not repay, problems with peer monitoring, local information is difficult to obtain if borrowers are dispersed, borrowers cannot observe each other's efforts or reluctant to punish shirkers, free riding
- Grameen style group lending
- 2:2:1 staggering where 2 members of the 5person grp get their loans first and if all instalments are paid on time, initial loans are followed 4 to 6 weeks later by loans to 2 other members then by the loan to

crisis that has nothing to do with peer monitoring

- Usually group contracts are seldom enforced exactly and loan officers spend a great deal of time to investigate problem cases and if defaulter's peers are blameless, the defaulter is dropped from the group
- Loan officers can address problems of defaulter without invoking punishments for entire group
- Under Grameen Bank II, borrowers are offered Basic Loan with weekly repayments and if borrower gets into trouble, she is offered Flexible Loan with sharp drop in loan size limit but easier terms spread over longer period
- Only when customers fail to repay Flexible loan then they are expelled

Summary of group lending

- A microfinance institution request borrowers apply individual loans in groups
- Groups are made jointly responsible for their loans: If one borrower does not repay, the rest have to repay for her or else everyone is excluded from future refinancing
- Incentivise borrowers to screen, monitor and enforce repayments on peers
- Way to transfer onto customers the responsibility for jobs usually undertaken by lenders
- Screening potential customers, monitoring their efforts, enforcing contracts
- In return, customers without collateral can get loans that would otherwise be inaccessible or at least not available at such low interest rates (MFI wanting to break even can now offer lower rates than moneylenders) and expect repayment from poor individuals
- Group lending contract achieve efficient outcomes even when lenders remain ignorant
- Prevent moral hazard and adverse selection issues and promote social capital which enhances efficiency (investment)
- Peer groups in close knit society can impose social sanctions and reduce agency costs
- If borrowers lack good info on each other such as mobile urban neighbourhoods and sparsely populated areas, bank is worst off
- Microfinance is good for efficiency and good for equity
- Repayment rate bank can charge under joint responsibility is higher than the repayment rate bank can charge under normal bilateral contracts: lending become possible
- Widespread methodology with village banks in Latin America and solidarity groups in Asia
- Mixed results from empirical work
- Emerging tensions: borrowers frustrated at cost of attending regular meetings, loan officer refused to sanction good borrowers who happen to be in bad groups and constraints imposed by diverging ambitions of group members

Beyond Group Lending

- Progressive lending: practice of promising larger and larger loans for groups and individuals in good standing
- Repayment schedules with weekly and monthly instalments, public repayments and targeting of women
- More flexible attitudes towards collateral
- Bangladesh ASA and Grameen Bank II has eliminated joint liability and BancoSol in Bolivia has moved a large share of its portfolio out of solidarity contracts into individual contracts
- Individual contracts are for established clients and solidarity group contracts are for small loans
- Microlenders focusing on individuals serve better off clients and are more self reliant. They serve a smaller population of women clients and charge lower interest rates
- Group lenders and village banks serve poorer clients and have higher cost relative to loan size
- Individual lending approach is better in sparsely populated areas, areas with heterogeneous

- Heterogeneous treatment effect: SEED treatment worked on getting inactive savers to save but did not work on clients who were already active savers
- Savings response represents a lasting change in savings not merely a short term response to a new product
- Individuals who voluntarily engage in commitment devices ex ante may improve their welfare
- Policy implications: product design influence both savings level as well as selection of clients that take up product
- Such commitment products are not in market possibly because it is not profitable for banks if they believe a large proportion of consumers are naive about their self control problems

Empirical strategy

- 2 main outcome variables of interest: take up rate of commitment savings product (D) and savings at financial institution (S)
- Financial savings refer to both savings in SEED acc and savings in normal deposit acc
- Measure accounts for crowd out to other savings vehicles at bank
- Characteristic of interest: reversal of time preference question
- For each category of money, rice, icecream, individuals are coded as hyperbolic if they wanted immediate rewards in short term but willing to wait for higher amount in the long term
- Individuals are coded as impatient if smaller rewards are consistently taken over larger delayed rewards
- We can get an estimate of the differential impact of a savings product with a commitment mechanism relative to being encouraged to save more in their normal noncommitment savings acc
- According to survey data, married women are more impatient than unmarried women, education is uncorrelated with impatience, unemployed individuals are more impatient, higher income households are more patient
- Those who are time inconsistent are in fact more likely to take up SEED product
- Hyperbolic preference strongly predicts take up of SEED product for women
- Education, income and being female also predict take up of SEED. Individuals who received some college education are more likely to take up (significant in women)

Conclusion

- Savings require a delay of immediate rewards for greater future rewards
- Considered particularly difficult for individuals with hyperbolic preferences or self-control problems
- Theoretically, these individuals have a preference for commitment
- Philippine tradition of women being responsible for household finances and hence more in need of finding solutions to temptation or savings problems
- Randomized control strategy to evaluate effectiveness of a commitment savings acc on financial savings
- Individuals randomly assigned into 3 groups
- Commitment treatment grp that was offered the special product
- Marketing treatment grp that received a special marketing visit to promote savings
- Control grp
- Of those in commitment treatment grp, 28% opened SEED acc
- SEED generated positive impact on savings
- After 6 months, those in CT grp had increased saving stock of 47% and after 12 months, average bank acc savings increased 82%
- Those in CT grp also have higher probability of increasing savings by more than 20% after 12 months
- Increased in savings over 12 months suggest saving response to commitment treatment is a lasting change and not short term response to new product

Easterly: Was Development Assistance a mistake?

- Development assistance is the combination of money, advice and conditions provided by rich nations and international financial institutions such as World Bank and IMF which is designed to achieve economic development in poor nations
- In 1950s to 1970s, economic growth was simply a matter of raising rate of investment to GDP which includes public investment for roads, schools and private investment
- However, debts accumulated to finance these investments turned out not to be repayable
- 2 debt crises during 1980s and middle income and low income countries entered a long process of rescheduling and writing off debt
- This was a sign of unproductive investment esp in Latin America and Africa hence development wisdom moved away from mobilizing and guiding capital accumulation
- Attention shifted to success of East Asian Tigers (South Korea, Taiwan, Hong Kong and Singapore) which combined export orientation and macroeconomic stability
- Adjustment with growth: removing price distortions, opening up to trade, correcting macroeconomic imbalances (mainly budget deficits)
- Couldn't replicate the East Asian miracle elsewhere in the world since loans to finance structural adjustment also didn't bring about growth in low income countries and loans couldn't be repaid
- Then conventional wisdom shifted to stress the importance of institutions such as property rights, contract enforcement, democratic accountability and freedom from corruption
- There is no single set of policies that can guarantee to ignite sustained growth
- Different policies can yield same result and same policy can yield different results, depending on country institutional contexts and underlying growth strategies
- Economists know about development and are reasonably confident that some combination of free markets and good institutions has a good historical track of achieving development
- It is just that they don't know what specific actions contribute to free markets and good institutions and how all the small pieces fit together
- They don't know how to achieve development and development assistance have failed to achieve development
- Over the past 42 years, \$568 billion has flowed into Africa yet per capita growth of the median African nation has been close to zero
- Top quarter of aid recipients received 17% of their GDP in aid over those 42 years yet they also have near-zero per capita growth
- South Korea only took off after aid is reduced and they disregarded the advice of aid donors
- Ghana, Uganda and Mozambique were cases of recovery after steep collapse and depend on rapid growth episodes that usually prove to be temporary
- Currently most celebrated cases of rapid growth (India, China, Vietnam) receive little aid as % of GDP
- A lump sum transfer does not change the incentives at the margin to invest in the economy
- Any poor country where incentives to invest are attractive does not need aid
- A poor country without incentives to invest will not have aid going into investment
- The international capital market imperfections and alleged low savings rates in poor countries used to justify aid in the past did not hold up well. Now, even peasants in China have higher savings than Americans
- Structural adjustment lending had no effect on the kind of macro policies and price distortions that it was supposed to correct
- African countries did little in terms of reform in response to structural adjustment packages or aid
- Aid agencies also paid surprisingly little attention to political incentives facing recipient governments

- Large aid flows can result in reduction in govt accountability since govt elites do not raise revenue from local economy
- Aid may therefore worsen democracy, bureaucratic quality, rule of law and corruption
- There are knowledge and incentive problems that afflict foreign aid agencies
- Recipient of aid-financed public services has no ability to register dissatisfaction through voting
- With little or no feedback from the poor, there is little information as to which aid programs are working
- There is little accountability and emphasis is made on loans and not on results of loans
- There is fondness for world summits, moral exhortations from everyone rather than any agency taking responsibility for any one thing
- Health clinics without medicine, water systems built not maintained and aid-financed govt stay in power despite corruption
- Aid agencies should focus on more specific tasks like combating childhood diseases since it is difficult to map actions to development anyway
- Development assistance is inherently unaccountable and unable to process feedback
- Don't know who is responsible for world poverty? UN? World Bank?
- Development economists may be greatly overrated as means to achieve development since development economics was a new field and none of the development economists contributed to the development of developed countries today
- Institutions may arise from social norms or spontaneous bottom-up arrangement of many actors other than these development economists who dictate from above

Conclusions

- We don't know what actions achieve development, our advice and aid do not make these actions happen and we don't know who the winners are
- Don't expect foreign aid to achieve development
- Use foreign aid to finance piecemeal steps aimed at accomplishing particular tasks which has a clear high demand ex. To reduce malaria deaths, provide more clean water, build and maintain roads, provide scholarships for talented but poor students
- Seek to create more opportunities for the poor rather than seek to transform poor societies
- Rmb principles of division of labour and gains from specialization
- Focus on problems such as inflation stabilisation, financial regulation and elimination of red tap encountered by business
- Contribute to allow for spontaneous bottom up process to work
- Economic growth without influence from experts is happening in China, India, Vietnam, Chile which involves homegrown gradual movement to freer markets