

Generating employment in poor and fragile states: Evidence from labor market and entrepreneurship programs*

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Abstract

The world's poor—and programs to raise their incomes—are increasingly concentrated in fragile states. We review the evidence on what interventions work, and whether stimulating employment promotes social stability. Skills training and microfinance have shown little impact on poverty or stability, especially relative to program cost. In contrast, injections of capital—cash, capital goods, or livestock—seem to stimulate self-employment and raise long term earning potential, often when partnered with low-cost complementary interventions. Such capital-centric programs, alongside cash-for-work, may be the most effective tools for putting people to work and boosting incomes in poor and fragile states. We argue that policymakers should shift the balance of programs in this direction. If targeted to the highest risk men, we should expect such programs to reduce crime and other materially-motivated violence modestly. Policymakers, however, should not expect dramatic effects of employment on crime and violence, in part because some forms of violence do not respond to incomes or employment. Finally, this review finds that more investigation is needed in several areas. First, are skills training and other interventions cost-effective complements to capital injections? Second, what non-employment strategies reduce crime and violence among the highest risk men, and are they complementary to employment programs? Third, policymakers can reduce the high failure rate of employment programs by using small-scale pilots before launching large programs; investing in labor market panel data; and investing in multi-country studies to test and fine tune the most promising interventions.

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Executive summary

Chances are, if you ask a President or a Prime Minister to name priorities, “employment” will come up in the top five. Employment is a path to higher and stabler incomes, and possibly some measure of fulfillment and esteem. Employment might also be a means to social and political stability. Poor and unemployed young men, it is often said, are more likely to fight, riot, steal, rebel, or join extremist groups.

The links from employment to stability are important, if only because a growing portion of the poor live in unstable places. Currently, about two billion people live in countries that are “fragile” or have high homicides rates. By 2030, the remaining low-income countries in the world are expected to be the conflicted and fragile ones.

Unfortunately, these links—from labor market and entrepreneurship interventions to actual employment, and from employment to stability—are based first on faith, second on theory, and last on evidence. Not surprisingly, most of these faith-based employment programs have failed to deliver jobs, poverty relief or stability, especially standard interventions such as skills training and microfinance.

The last few years, however, have seen a growing number of impact evaluations of labor market interventions, entrepreneurship, and other social protection programs. These evaluations compare program participants to comparison groups, often tracking impacts for years. This type of counterfactual-based evidence, including a growing number of randomized control trials, is beginning to show some consistent and surprising results across countries. Where the evidence is still missing, economic and political theory provide insights. This paper summarizes this literature and its implications for policy.

On the link from employment programs to actual employment

In low-income countries, poor households typically have a “portfolio of work” rather than a “job”. Commonly, each member earns income from many sources, from agriculture to casual labor to petty trade and formal work, in part because it mitigates the risk and seasonality inherent in any one source, and because it is often not possible to sustain sufficient income from a single occupation.

In this context, one way to increase work and incomes is to improve portfolios of work rather than “create jobs”. The question we focus on is how to help poor people raise their productivity in their current occupations, and how to help them access new occupations that offer higher earnings. Traditional job creation is still important since, ultimately, the end of poverty will come from having lots of small, medium, and large firms to sustain employment on a large scale. But this paper is not about the policies or conditions that might bring about that kind of long term structural change. Rather we focus on programs and policies that can be immediately implemented, and can show results, in the space of a few years.

The evidence shows that improving poor people’s portfolios of work can be done on a large scale, cost-effectively. For the most part, the tools available are a mix of safety net programs, such as public workfare, and “supply-side” interventions that try to give people and firms something they need, such as capital or skills, to raise their incomes.

Across countries, challenges, and classes of people, the evidence sends a clear message: many of the poor have high returns to capital. The poor seem to be held back by too little capital and an absence of cheap credit. When programs give capital to the poor—be it cash, tools or livestock, to small business owners, unemployed youth or ultrapoor women—we tend to see similar results: poor people expand the number and size of their businesses, and increase the profitability of work in their portfolio. This is true even in some fragile states, especially in the aftermath of a political crisis or natural disaster. It's not yet clear if the returns to capital are high in high-conflict situations, however.

“Capital-centric” interventions have the most promise, but tend to be the exception rather than the rule. Start-up grants, cash infusions, in-kind capital transfers, and other so-called “hand-outs” have an impressive record of increasing poor people's long run earning potential—the very opposite of the “dependency syndrome” some fear. The impacts may be especially high after natural disasters and political crises. Currently few of the studied programs provide capital alone, so some of their success may be due in part to other program components, from supervision to training. But being what we call capital-centric seems to be critical to these programs' success.

However important capital might be, the answer is probably not “more microfinance”. Most microfinance is still very expensive for the borrower and has short repayment periods. Because of this, it is a poor vehicle for investments in farming or business, which require longer incubation and less costly capital. Thus it should come as little surprise that field experiments in several countries finds almost no effect of microfinance on profits or poverty. Lower interest rates and more flexible repayment terms could improve matters.

The evidence across countries also sends another message: it is hard to find a skills training program that passes a simple cost-benefit test. After repeated studies of technical, vocational, and business skills training programs, most programs do not have positive impacts, especially on men. Those that do are often so expensive that costs far outweigh benefits. And most poor people turn these programs down or drop out. This is incredible given that the World Bank alone invests nearly a billion dollars a year in skills training programs of some form. There are several possible explanations for the poor performance of training. Without capital, the returns to technical skills could be low. Or it may simply be difficult to design training programs people want and educate trainees that the private sector will employ. However important human capital might be to development, skills-centric programs seem difficult to get right, clearly at great cost.

Workfare and other social safety net programs have promise in fragile states, but there is shamefully little evidence on their impacts. For all the money that is spent on these programs, it is shocking how little they have been studied. These could be the best (perhaps only) option for creating work in unstable situations. In stable situations, there is also evidence they might raise wages for all. This gap in the evidence could easily be filled, and must.

On the link from employment to crime and violence

Successful employment programs modestly reduce materially-motivated crime and violence. Researchers have relatively little data on high-risk populations in poor and fragile states so

it is hard to draw strong conclusions. But what evidence exists suggests that activities like crime or mercenary work can be occupations like any other. Some people hold them in their portfolios, and when peaceful alternatives pay better, they steal or fight less. But few exit criminal activities altogether, in part because it's optimal for them to keep those income streams in their portfolio.

To improve social stability, employment programs should target the riskiest men. Most poor and unemployed people do not steal, riot, or rebel. So using employment programs to promote stability means trying to target the people that do (the “high-risk” people, usually men) or the people who might start (the “at-risk”). One lesson from U.S. law enforcement is that highly targeted programs are cost-effective. Few programs in low-income countries attempt to do this.

Even so, jobs and poverty might not matter that much for an awful lot of violence, from rioting to rebellion to terrorism. Many violent groups do not use material incentives to motivate people. For such individuals employment and poverty alleviation may be ineffective and other factors, such as injustices, may need to be addressed.

Programs that emphasize social, emotional, and planning-related “soft” skills may be powerful violence-reduction tool as recent behavioral programs have shown positive results. Many employment programs now include “psychosocial” and “life skills” components. These concepts are usually ill-defined, the actual programs vary a great deal, and it is unclear if most are effective. But a growing body of evidence from the United States and Africa suggests that cognitive behavioral therapy focused on specific socio-emotional skills, self-control, and planning could be quite effective at reducing crime and violence. It remains to be tested whether this type of approach could also be effective among non-economically motivated perpetrators of violence and conflict.

Implications for policymakers who plan and implement employment programs

Policymakers who advocate skills training programs should bear the burden of proof that these programs will work. It is entirely possible that a better training program—one that gets the skills or the links to employers right, is longer, or provides capital—has high returns relative to cost. As the evidence of cost-ineffective training programs stacks up, however, donors and policymakers should at least hesitate before sending more money in this direction. If there is a good reason to think a new program model works, then at this point the only reasonable answer is to subject it to a rigorous test, preferably before taking it to scale.

A “capital-centric” approach is probably the best candidate for stimulating large-scale self-employment. Often they cost no more than a few hundred dollars per person—far cheaper than many of the alternatives, and deliver much needed capital directly to individuals, who may have the best knowledge about how to develop their livelihoods and generate income.

It is still important to explore whether we can do capital-centric programs better. A small number of donors pour large sums into such programs so the returns to improving these programs are high. It is time for multi-country trials that compare different capital injections to one another with and without other components (such as training).

Program designers also need to keep their eye on cost. Too many programs and evaluations ignore the denominator in cost-effectiveness calculations. The ceiling on program costs should be defined by the highest reasonable earnings increases a program can be expected to deliver.

Keep in mind, there is no off-the-shelf program that will work in all contexts. Even if there are a few rules of thumb on how to improve self-employment, every context will be different. The constraints holding people back from employment, and the incentives for crime or violence, vary from place to place. Thus rapid, accurate diagnosis in each context is key.

We believe employment programs fail because they are based on faulty assumptions and diagnosis. Better local data is part of the solution. Often, some political factor or pet theory drives the program design, and the wrong policy gets taken to a large scale. This is hard to counteract. But in developed countries, people's understanding of labor markets and employment programs was revolutionized by administrative data and panel surveys that follow cohorts of workers over time. More such data in fragile states would be a huge public good.

Even so, we believe that implementation trumps diagnostics. Panel data analysis will not provide speedy answers. A process of small-scale pilots can. The average World Bank-financed training program cost \$100 million. Why would anyone scale an unproven program to tens of thousands of people, when they could first test several designs with hundreds? Institutionally, such experimentation is hard for many states and aid organizations to do. But the answer is surely "some small-scale trial and improvement should be done" rather than the status quo, which is almost zero.

We should not only scale but also study and improve successful models. Capital-centric entrepreneurship programs have shown high returns on average, and deserve to be scaled. But we have little sense whether some of the costlier components—business skills training, mentorship, and so forth—are pushing cost-effectiveness up or down. And the components that might be most useful in fragile states—insurance or forms of property rights protection—could be complements to cash but are seldom tested. Right answers that hold across many contexts could dramatically increase how far scarce aid dollars go. It is a perfect moment for a multi-country trial of capital-centric entrepreneurship programs, including tests of individual program components. More generally, large donors need to develop institutional mechanisms for fine-tuning and scaling successful models. The cost of these multi-country studies is a minuscule fraction of the funds spent on these programs, not to mention a fraction of the likely savings.

1 Employment programs: Aims and principles of design

Employment is an end in itself, providing people with a sense of self worth and identity, among other things.¹ Most importantly, however, work provides people with income, the higher and stabler the better. Whether through self-employment or wage-earning jobs, policies that promote larger and more predictable incomes are a direct way to improve the welfare of the poor. This paper reviews the evidence on some of the most common policies for doing so: labor market, entrepreneurship, and other social protection programs.

We focus on labor market and entrepreneurship interventions in fragile states and high risk populations. This is partly because of the widespread belief that jobs and incomes will reduce the risk that people fight, riot, or rebel. It is also because more and more of the world's poor live in violent places. In 2014, for instance, about 1.2 billion people lived in countries that were “fragile”, while about 800 million people lived in developing countries with high homicides rates.²

Fragile states are also, increasingly, the destination of most foreign aid. If we take the top fifteen recipients of aid from the World Bank, United States, and United Kingdom, seven have been in conflict for at least 15 of the last 25 years. These 15 countries include four of the top five (and five of the top ten) most unstable nations in the world.³ Moreover, since the economies of the more stable poor countries tend to be growing, by 2030 more and more of the world's poor will be concentrated in fragile and violent states.⁴

1.1 Employment versus jobs

To begin, it is useful to define our aim: higher, more stable incomes for the poorest people. For the most part, this will come from more hours of work that deliver at least as high a wage as the current work. This does not, however, necessarily mean “job creation”.⁵

In low-income countries, unemployment is seldom the main problem. Few adults in developing countries are unemployed in the sense of having zero hours of work.⁶ It is more accurate to call them “underemployed”, in that people would like to work more hours for the same (or higher) wage they earn at their current activities.⁷ Due to some set of constraints, the returns to more labor in their existing activities tend to be low or even zero.

Poor people also tend to engage in a range of income-generating activities, simultaneously or over time. These portfolios of work are the best response to a bad situation. When

¹e.g. World Bank (2012)

²World Bank (2015a)

³See Berman et al. (2015) for these figures.

⁴Burt et al. (2014)

⁵Some, like the World Bank in their 2013 World Development Report, define any income source, formal or informal, as a “job”. For the most part, however, people tend to think of a job as a stable, full-time, wage or salaried position with an employer. So we use the terms “work” or “employment”.

⁶While people from middle class families might be able to sustain periods of unemployment while searching for a job, most people simply must earn a basic income to survive.

⁷For an overview of labor markets in developing countries, see Behrman (1999).

income from any activity is risky, having streams from many activities is optimal, for the same reasons that workers in developed countries hold diversified investment portfolios.⁸

In the end, people are poor when the price of their labor (and the other assets they hold, such as land) is very low. As the economist Francis Teal has written, this “requires us to understand why these incomes are so low and then design policies that raise the incomes of those whose main asset is their labour.”⁹

1.2 Supply- and demand-side programs

At the risk of oversimplification, we see two types of labor market and entrepreneurship programs: supply-side and demand-side.¹⁰

Supply-side programs provide some key input or service, such as capital or skills training, to individuals or very small enterprises. Demand-side programs try to increase labor demand for unskilled workers. They include public workfare programs that create short term work through infrastructure and other projects. Each program has a different logic, and will work better in different circumstances or for different types of people.

These categories, however, ignore job creation through more general private sector development—policies which encourage the growth of small, medium, and large firms.¹¹ Creating jobs in the sense of new positions in firms is extremely important. But besides being outside our expertise, such private sector development uses a different set of tools and analysis, and the counterfactual-based evidence is also more limited.¹² Hence we leave general private sector development aside.

In some ways, this seems to be at odds with what the average government wants, which are employment programs that create new jobs. Governments seldom demand programs that improve poor people’s portfolios of work on the margin. While less glamorous and more difficult to quantify, one of the main messages of this paper is that improving people’s portfolios of work can deliver faster results, for more people, cost-effectively.

⁸Banerjee and Duflo (2007, 2008) provide a more detailed picture of the lives of the poor. Also, portfolios can be a response to limited land or capital. While the poor can pour their time into farming or a business, the returns to this labor fall quickly if the land or capital is small. As these returns fall, other activities, such as casual labor, may pay better (when it’s available).

⁹See Teal (2014, p.3).

¹⁰See Ralston (2014) for an analysis of the major types of interventions funded by the World Bank.

¹¹These include macroeconomic strategies such as reforming the competitive environment, changing regulation processes or improving the banking sector. More micro-level intervention focus on access to credit to small and medium-size enterprises, or developing production in connected industries (e.g. the development of milk products from the livestock industry) through what is called value-chain development. Filmer et al. (2014) discuss how these forces and policies may affect employment prospects for youth in Africa.

¹²See Grimm and Paffhausen (2015) for a review of evaluations of programs to grow micro, small, and medium enterprises. In general their findings for small and medium enterprises mirror what we find for the unemployed and microentrepreneurs below: that training and microfinance have little effect on employment or performance, and that employment is generally difficult to stimulate in existing firms. But business development services and wage subsidies show promise, as do capital injections (which have not been studied extensively). In general studies have had samples that are too small and horizons that are too short to properly evaluate these interventions, however.

1.2.1 Is salaried work preferred to self-employment?

A counter-argument is that most people do not want a portfolio of work in farming or petty business. People do not want to be entrepreneurs, because the work is risky, unpleasant, low status, or otherwise undesirable. What people want, the claim goes, are “real jobs”. We are not sure this is true.

To take an example from Ethiopia, one recent study worked with a group of nearly 1000 unemployed and underemployed applicants to low-skill jobs in five different industrial firms, such as textile plants or commercial farms.¹³ The researchers used a lottery to allocate the jobs, and also randomly offered cash and basic business training to about half of the unsuccessful job applicants. To the researchers’ surprise, most people quit the permanent industrial jobs within a few weeks, finding the jobs unpleasant and risky. A year later the people offered jobs were no better off economically compared to the control group, but their health was worse. The cash and training group, meanwhile, started businesses, saw their earnings increase by a third, and were happier.

While any one of these job applicants might have been happier with a well-paid, white collar job, these were not an option for most people (and they are hard to create). Opportunities will vary from country to country, but the point is that policymakers and academics may underestimate the attractions of self-employment. Most of the people in the Ethiopian experiment were dissatisfied with their enterprise, but in the long run a majority aspired to better enterprises for themselves rather than better jobs. More data is needed, but it is possible that the Ethiopian experience is not uncommon.

Ultimately, high-quality, permanent, salaried work is an essential part of development. But in the meantime we think policymakers and academics should be more cautious in asserting the primacy of regular over portfolios of work.

1.3 When supply and demand-side strategies work and why

1.3.1 Supply-side strategies

The fundamental (and too often unstated) assumption behind supply-side interventions is that the firm or individual has a high return to the inputs provided by the program, but for various reasons—a market failure, or some other constraint—cannot normally access these inputs.

To make things concrete, take two common interventions with individuals or small firms. These could be a smallholder farmer, an underemployed casual laborer, or someone with a small kiosk or trading enterprise.

1. *Physical capital injections.* These interventions come in many forms: cash transfers, in-kind capital (such as livestock or tools), or subsidized credit.

¹³Blattman and Dercon (2015)

For a program that gives any of these to raise employment, one thing must be true: the firms or entrepreneurs must be operating below their optimal size because they have too little access to capital. That is to say, the enterprises could be bigger, or the entrepreneurs could add a new microenterprise to their portfolio, and thus increase their average earnings or profitability. This implies that their binding constraint is too little capital, and so new capital injections will be invested.

Note that, if access to credit is not the binding constraint, then the injection will not be invested and the returns will not be high. This could happen for several reasons. Perhaps recipients are not very good entrepreneurs and, even if their credit access is poor, they don't have the ability to grow. Perhaps they are held back by some other constraint, such as insecure property rights, an uncertain policy environment, or extreme exposure to risk. In these cases, cash will optimally be consumed or saved; in-kind capital will be divested; and credit access will be ignored.¹⁴

2. *Providing human capital.* Another example is programs that transfer skills and knowledge. These programs do not need to assume the business is operating below its efficient scale. Given the knowledge and skills they have, the business might be the right size.

Rather, these programs assume that the returns to skills are high—that the optimal size of the business could be greater if the entrepreneur had more. These could be technical skills, managerial skills, or even “character” skills such as one's work ethic or social and emotional skills. Such skills-building programs presume that that business is not also held back by some other constraint, such as an absence of credit and capital, or high costs of searching and matching with firms.

Importantly, these skills programs also assume there is a market for these skills, and that public programs are good at delivering the skills that the market needs.

These programs are immensely common. Take skills training alone. From 2002 to 2012, the World Bank Group and its client governments invested nearly \$9 billion in 93 skills training projects—nearly \$1 billion per year, and \$100 million per project.¹⁵

Many other types of programs supply inputs and relieve constraints: land in land-scarce economies; property titling and other security measures where rights are insecure; and insurance in risky occupations (such as farming). Many programs also provide supervision or various types of commitment devices to counter a perceived lack of self-discipline and control.

The success of all of these supply-side interventions depends on getting the diagnosis right: that these market failures or constraints actually exist, are binding, and that relieving them is enough to increase some employment.

If you think about it, this is a rather tall order. How often is it that people are held back by just one constraint? For example, in one experiment, small farms in Ghana grew when

¹⁴Blattman et al. (2014) outlined a simple model of such investment and occupational choice for unemployed people. Fafchamps et al. (2014) have put together a similar model for growing existing microenterprises. And Udry (2014) has outlined something similar for small farmers. Banerjee and Duflo (2011) also provide an overview of the theory and evidence.

¹⁵Twose (2015)

they received both rainfall insurance and a cash transfer, but not when they received the cash transfer alone (which relieved the credit constraint on investment but not the problem of extreme risk).¹⁶ This is one reason why many programs often provide many different inputs—to relieve many possible constraints, shotgun style.

Even though getting assumptions right is quite crucial to success, many programs are not explicit about their assumptions. Where they are, evidence to back them up often is not available. Thus programs are often solutions to poorly diagnosed problems. The shotgun approach can help, but may lead to inefficient program components that are costly to deliver.

A final question is the general equilibrium impacts of these supply-side interventions. If people start up new businesses, do they simply crowd out previous business owners, or do the demand effects outweigh any increase in the number of suppliers? Where the number of beneficiaries is small relative to the size of the economy, this is not a major concern. But it is relevant for considering programs at scale. Which way do spillovers run?

1.3.2 Workfare as demand-side stimulus (with possible supply-side spillovers)

Sometimes called simply “cash-for-work” programs, workfare programs are rooted in the idea that the poorest in many countries have low returns to labor and are underemployed in the sense that they would be willing to work more hours at even a low wage.¹⁷

Some programs offer a permanent safety net, by offering a guaranteed amount of employment every year. These are more common in middle-income countries. Other workfare programs are one-off affairs. Such temporary programs are common in post-conflict or post-disaster situations, to inject cash into an economy and provide some of the poorest a basic income.

The most direct effect of all workfare programs is fairly simple: they increase the total earnings of the poorest, increasing current consumption and possibly savings as well. We expect the additional earnings to be mostly consumed when people are in temporary employment slumps or are suffering from other shocks, or when workfare opportunities are continuous rather than one-time deals. This is why these programs are often deemed “safety net” programs rather than employment programs.

But the effects might not be limited to safety nets. First, to the extent that households increase their spending, workfare earnings could have an important multiplier effect on local economies. “Reigniting the economy” is one rationale for many post-crisis programs.

Second, large-scale workfare programs could raise unskilled wages. If the government offers enough employment to affect the total demand for labor in the economy, the price of labor will tend to rise.¹⁸

¹⁶Karlan et al. (2012)

¹⁷In developed countries, the motivation for workfare programs is often different. The problem is typically articulated as unemployment rather than underemployment, and the causes articulated are different. For instance, unemployment could arise from regulatory forces (such as minimum wages), the bargaining environment (i.e. unions), firm incentives (e.g. efficiency wages), or search and matching frictions.

¹⁸There are winners and losers, however, as an increase in the wage would hurt employers. In highly unequal situations, governments might find this an acceptable trade-off.

These demand-side effects are the main aim of workfare programs. However, the influx of cash could also relieve some of the supply-side constraints we noted. In the case of a one-off workfare program, credit-constrained participants could use the cash to invest in physical capital, such as livestock or a microenterprise, or human capital, whether this is skills training, health, or education for the worker or his family.

A permanent guaranteed employment scheme could also stimulate investment by providing a form of insurance. Most people are risk averse, especially when they are in extreme poverty, and they will avoid high return investments if they raise even a small risk of a very bad future outcome. Guaranteeing a minimum amount of work every year could mitigate the downside risk and encourage more investment and self-employment.¹⁹

1.4 How the context is crucial

A country's general economic and political conditions—the quality of infrastructure, access to foreign markets, policy stability, rule of law, the investment climate, and so forth—drive the returns to every factor of production (including labor) at every level, from the largest factory to the smallest farmer. Any intervention, supply- or demand-side, needs to be understood in its context to predict the effects.

Context is particularly important in the case of fragility. At the risk of further oversimplification, we outline two types of fragile and conflict-affected states.

1. ONGOING UNCERTAINTY AND INSTABILITY. Examples include ongoing conflicts, countries with a high risk of coups or other political instability, or places with unstable policy environments (from an unconstrained autocrat, for example). In such environments, the rule of law may be highly uncertain, and the risk of collateral damage during conflict reduces the value of investments made today.

In these cases, incentives to invest cash or other capital are too low and too risky for most individuals and firms, except the few people who have power or stability. The best use of capital may be to consume it or to invest it in forms that are difficult to steal: half-built houses; paying for yourself or a family member to migrate to a more stable country (and send back money); going back to school (if they still operate); or hiding it.

While the returns to physical capital decline, the returns to human capital investments may not fall as much and the opportunity cost of time may decrease, changing people's patterns of investment. Acquiring job skills, keeping adolescents in secondary school, or fostering character skills could create a stock of human capital that helps people recover after war. However, these returns will only be realized when the environment

¹⁹In principle, a workfare program could also impart experience and improve future employability. While difficult to imagine for highly unskilled labor, such as road work, some work could impart hard or soft skills, thus making the worker more attractive hires by future construction firms, or potentially increasing the private returns to self-employment. Another additional complementary outcome could follow if workfare influences the willingness to seek out legitimate employment or changes a person's work ethic. Given the nature of many public works programs, this kind of skills gain seems unlikely, but cannot be ignored.

stabilizes and people and firms are not held back by the lack of other crucial inputs, such as capital.

In these scenarios, programs that improve the rule of law, property rights, political stability will have the greatest effect on employment—including programs that help people resettle to stable places.

Programs that supply physical or human capital, however, are unlikely to produce employment or raise incomes, because the risk-adjusted expected returns are so low. Workfare programs or other social protection programs can help people maintain some minimum standard of living and (as we discuss below) could change incentives for violence. Thus workfare programs may be the best performing labor market and social protection programs simply because all the other alternatives work poorly.

Note, however, that while political instability may lower returns to capital in general, there may be pockets of high returns. People in more secure enclaves or regions, or people with the power to protect their property rights, may have exceptionally high returns to capital since it is so scarce in the economy. This is probably only true on the margin for smaller groups of people. Nonetheless, it could be that targeted programs (e.g. at high risk men, to deter them from joining an armed movement) could be quite successful. We simply do not know.

2. RECENTLY RESOLVED UNCERTAINTY AND STABILITY. An example is a war or tense political situation recently resolved or a natural disaster that has taken its course. In these cases, the economy and most people are below their optimal level of human and physical capital, and high savings and investments will rapidly expand the economy.²⁰

Supply-side interventions can serve at least two purposes in such cases. One is to increase the speed of recovery, helping people rebuild stocks of human and physical capital. Another is to increase the participation of particular groups in the growth. This could be the very poorest, women, or particularly high-risk men. Sometimes targeting and more equal growth is an end in itself. Other times there are positive spillovers, for instance if targeting high-risk men reduces crime or the likelihood of a return to war. If faster recovery pays a “peace dividend”, in that it gives elites and high-risk people a stake in continued security, then interventions could have enormous impact.

A nice contrast of these two cases comes from research looking at how national output (GDP) responded to political crises in 190 countries.²¹ They looked at the response to an outbreak of civil war, a sudden deterioration in the constraints on executive power, or both happening at once (a twin crisis). Output fell by about 5 or 6 percentage points for either crisis alone, but tended to rebound from war (presumably because the conflict ends). Not so with the deterioration in executive constraints, where the shock tended to be persistent. The effect on output was greatest and sustained—a fall of 16 percentage points overall, and 20 in the poorest countries—under twin crises.

²⁰Blattman and Miguel (2010) discuss this in the context of a simple neoclassical growth framework.

²¹Cerra and Saxena (2008)

This simple exercise illustrates a few points that are supported by the broader literature on civil wars and political institutions.²² One is that, in general, oppressive and insecure environments are not going to offer high or stable returns to any factor of production.²³ Another is that the resolution of civil war is often followed by rapid recovery, but this rebound depends on the quality of post-war institutions and political stability. This follows the standard neoclassical models of economic growth that predict higher investment following negative shocks to capital stock as long as there are no changes to institutions or technology. Any political or economic uncertainty following war is likely to decrease expected returns, increase relative risk, and possibly shorten investment horizons, thus reducing investment and raising the cost of capital.

Likewise, any interventions that lower the cost of investment, lower risk, or have positive externalities for firm growth are likely to increase employment prospects. This encompasses almost any general improvement in the economic or political climate: reduced corruption, better functioning systems of credit, public infrastructure, reliable power sources. Fragile and conflict affected states may be particularly poor at these, limiting the returns to human and physical capital in equilibrium.

2 The evidence: What interventions work?

Having covered the theory we turn to the small but growing body of evidence. One shortcoming is that there have been few rigorous, counterfactual-based evaluations of programs in fragile or conflict-affected states. There are a large number of studies in other low-, middle-, and high-income countries, however, that may be relevant. With some caution we compare the lessons from this broader literature to the scattered evidence in fragile states. The goal is to inform policy and program design while also highlighting to researchers the most pressing knowledge gaps.

2.1 Skills training programs

“Training” is probably one of the most ubiquitous employment interventions. What is striking, however, is that there are very few examples of evaluated programs that have had positive effects, at least on men. It is even more difficult to find any that pass a cost-benefit test, for men or women.

Overall, the returns to the more conventional human capital investments alone seem to be low relative to their usual cost. This seems to be more true for technical, vocational, and business skills than soft skills, where the evidence is promising but nascent.

²²See Blattman and Miguel (2010) for a review relating to civil wars.

²³e.g. Jackson and Rosberg (1982); Sawyer (1992); Besley and Kudamatsu (2008); Easterly (2011).

2.1.1 Business skills training

Short courses in business skills are extremely common interventions. For instance, at least 4.5 million people in 100 countries have taken part in the ILO's Start & Improve Your Business (SIYB) programme alone.²⁴

Unfortunately there is little evidence these programs have any effect where they matter most: on sales or profits. For example, there have been program evaluations in more than a dozen countries, ranging from Bosnia to Pakistan to Peru to Vietnam and Uganda. In general, most programs had little impact on business profits or poverty after about a year.²⁵

This is not to say that business practices do not matter. Surveys of microenterprises in six low- and middle-income countries and showed that better business practices were highly correlated with sales, profits and productivity.²⁶ But to the extent that business skills have high returns in very small firms, most training programs weren't very good at getting people to change these practices.

One caveat is that many evaluations have been too short-term and too low-powered to detect effects. It is possible that larger studies would show positive effects of business training (though perhaps not large or cost-effective effects).

2.1.2 Technical and vocational training

Technical and vocational education and training (TVET) are also commonplace interventions. There have been randomized evaluations of various TVET programs that combine internships with firms after the training. They tend to target young adults in lower socioeconomic groups. Overall, a set of recent randomized trials report some positive results for women, but seldom for men.²⁷ Even where effects are positive, however, few programs pass a cost-benefit test. For instance:

- In Turkey, government training programs targeted at a quarter million unemployed people (not just disadvantaged youth) had a very small positive effect on employment (2%) and earnings (6.5%) after three years, but these effects were not statistically significant. Even the best run programs on the highest potential groups struggled to pass a cost-benefit test.²⁸
- In the Dominican Republic, the *Juventud y Empleo* program had little impact on employment levels, although there is evidence of a modest impact (10%) on wages.²⁹

²⁴van Lieshout et al. (2012)

²⁵See McKenzie and Woodruff (2012); Cho and Honorati (2014). Note that the number of business start-ups and employment hours sometimes increased, but incomes did not.

²⁶McKenzie and Woodruff (2015)

²⁷Two women-only programs find modest effects. In Uganda, girls' self-employment rose but not earnings (Bandiera et al., 2012). In India there were modest impacts on women's work and earnings (Maitra and Mani, 2012).

²⁸Hirshleifer et al. (2014)

²⁹Card et al. (2007)

- In Malawi, an apprenticeship program found fairly high dropout rates and no positive effects on employment or wages after just four months, but some indication that men were less likely to drop out and more likely to continue human capital investments.³⁰
- One of the more effective examples comes from Liberia, where the *Adolescent Girls Initiative* provided six months of job and business skills training followed by six months of active placement support and supervision.³¹ Six months after the classroom based portion (and immediately following the supervision), women's earnings were about \$8 per week greater than the control group (and higher still among women trained for self-employment rather than job skills). Conservatively, however, the program cost \$1200 to \$1650 per woman. If the program effects stayed steady for at least 3–4 years, it would only then pass a cost-benefit test.
- Finally, in Colombia, the *Jóvenes en Acción* program provided classroom and on-the-job training to thousands of unemployed urban youth. A randomized evaluation showed that, ten years later, trainees were significantly more likely to be employed in the formal sector and had higher formal earnings, especially women who participated.³² Without data on the earnings of those outside the formal sector, however, it's hard to say whether the program impacted total income. Sensitivity analysis suggests it may have for women, but is most uncertain for men.

The general findings—high dropout, modest or ambiguous effects on participants' labor market outcomes, especially for the young and disadvantaged—is broadly consistent with the results from evaluations in many developed countries.³³ So is the high program cost, which often ranges from \$1000 to \$2000 per person in developing country programs (potentially excluding many fixed and administrative costs).

The fact that so many people decline opportunities to participate in these programs, or drop out after starting, is especially concerning. An interesting example comes from Pakistan's *Skills for Employability* program. Even among poor households who expressed interest in vocational skills, more than 95% did not enroll when given a voucher. In a later phase, the government increased daily stipends, moved the training centers to the village, and actively mobilized the population. Still enrollment did not cross 25%. Dropout rates and impacts from the randomized trial are not yet available, including the cost-effectiveness of the great measures to get people into classrooms.³⁴

Why aren't these programs delivering greater impact, even when people do demand them? It is not clear if the problem is with the approach to training and the targeting of disadvantaged youth, or if assumptions underlying the programs—that low skills and skills mismatches are impeding development in some countries—are themselves wrong. In general, training programs may be difficult to get right.

³⁰Cho et al. (2013)

³¹See Adoho et al. (2014). Training also included some soft skills, such as problem-solving, work ethic, communication, etc.

³²Attanasio et al. (2011, 2015)

³³Heckman et al. (1999); Kluve (2010)

³⁴Cheema et al. (2012, 2015)

Another view is quite simple: the returns to the kinds of human capital training programs provide are not that high.

A more hopeful view is that business and vocational training programs would have higher returns if combined with capital injections. A recent meta-analysis of 37 entrepreneurship program evaluations suggests this may be the case, but the research is insufficient and the evaluation horizons are usually too short to say for sure.³⁵ Even if true, we worry that most existing training models too costly to pass a cost-benefit test.

Nonetheless, cost-effective training programs could be a huge boon in fragile and conflicted states. In especially unstable situations, the risk-adjusted returns to physical capital could be quite low. And, if people are not working, the opportunity cost of their time could also be low. This presents an opportunity to invest in human capital that will speed recovery after the war. The question then is whether such training programs are better social investments than workfare programs, which we discuss below.

Moreover, training programs have positive indirect effects in the sense that a trainer is often paid as a consequence of the project, and this could have material effects on her well-being and also the development of the training sector. Other indirect outcomes could be additional dynamism in key sectors of the economy, as a result of there being greater supplies of skilled workers for firms.³⁶ These are important questions to research.

2.1.3 Investments in soft skills

Finally, other programs look at non-technical skills. These are sometimes generically called “life skills”, and include lessons on a range of topics, from job search to self-presentation to health. A more specific set of programs focus on so-called “noncognitive” or “character” skills. These programs have been targeted at at-risk and high-risk adolescents and young adult men, and try to help them become more self-controlled, improve their relationships, avoid resorting to violence, and so forth. They commonly use a cognitive behavioral therapy approach.³⁷

Overall, these programs have been successful at deterring crime, violence and other “anti-social behaviors”, as we discuss below. There’s no evidence, as yet, that these programs affect employment outcomes, even when combined with technical and life skills training.

- In Liberia, for instance, the STYL program (for Sustainable Transformational of Youth in Liberia) recruited high-risk urban men, such as those engaged in petty crime and drug dealing, and offered them an 8-week course of group cognitive behavior therapy (CBT). The therapy focused on developing skills of self control, such as the tendency to be planful, responsible, and resistant to temptation. The therapy also tried to foster a

³⁵See Cho and Honorati (2014).

³⁶Piffaretti (2015)

³⁷CBT is a therapeutic approach used to treat a wide range of harmful beliefs and behaviors, including depression, anger, and impulsivity. First, it tries to make people aware of and challenge harmful automatic patterns of thinking or behavior. Second, it tries to disrupt these patterns of thinking and to foster better ones by having people practice new skills and behaviors.

nonviolent, noncriminal self image and set of values. Half the men received a \$200 cash transfer in a second treatment arm. A year later, a randomized evaluation showed that the therapy increased self control and noncriminal values and led to large, sustained falls in crime and violence. The impacts were greatest when followed by cash, likely because it reinforced behavioral changes via prolonged practice. But there were no employment or earnings effects of these improved self-control skills and identity.³⁸

- This focus on character skills is common in US programs for at-risk youth as well as offenders. Some Western correctional institute programs target similar noncognitive skills, and a CBT approach is beginning to be accepted as best practice.³⁹
- Indeed, results similar to Liberia can be seen in three recent randomized control trials among at-risk Chicago adolescents. A study of three programs in Chicago showed that a year-long CBT program helped at-risk inner city adolescents reduce automatic behaviors (such as violent retaliations to a slight) by learning to override “fast” decision-making with conscious, “slow” reflection.⁴⁰ As in Liberia, the program decreases anti-social behaviors but there are no employment effects, and the effects of therapy alone on antisocial behavior diminish within a year.
- Two of the largest program evaluations in the US are of the Job Corps and ChalleNge programs, residential programs for at-risk youth that provide some social and character skills, but mainly focus on remedial training and employment.⁴¹ They also provide some social skills and attempts to counsel or build character skills. They have short term effects on crime and earnings that dissipate with time, perhaps because incentives for change were temporary and removed them from their regular environment. For this reason, non-residential programs are typically considered best practice.

Much more testing and research remains to be done to see if CBT-style character and identity building programs can be generalized to other developing countries or groups of high-risk men. CBT-based approaches may be most effective against disorganized, impulsive crime and violence rather than organized crime. We see little evidence it is an effective tool for employment generation, however.

2.2 Physical capital and financial markets

2.2.1 Capital injections

Whereas training programs typically try to help people gain employment in existing firms, a host of more capital-centric programs try to stimulate self-employment by relieving credit

³⁸Blattman et al. (2015)

³⁹See Lipsey and Cullen (2007) for a review. Most of the evidence is on children and adolescents, as outlined by Heckman and Kautz (2013); Hill et al. (2011). Andrews et al. (1990) do a meta-analysis of interventions in correctional institutes and find broad support for behavioral approaches on reducing criminal recidivism, though most of these are small sample, observational studies.

⁴⁰Heller et al. (2015)

⁴¹See Schochet et al. (2008); Millenky et al. (2012)

constraints, sometimes in combination with business plan competitions, short business or skills training, supervision and mentoring, or other services. For this reason we label them “capital-centric” programs.

In contrast to skills training programs, such capital-centric programs are relatively rare—so rare, in fact, that none appeared in a recent text analysis of all employment interventions in the World Bank.⁴² Yet the evidence from more and more program evaluations is that capital-centric programs can stimulate self-employment cost-effectively. There is a large and growing set of monitoring and evaluation reports and informal evaluations that make this argument. Just to focus on the rigorous evaluations, however:

- One of the world’s more common ultrapoor interventions, sometimes called *Targeting the Ultra Poor* (or TUP), provides livestock to the poorest households in a village along with a package of other services: basic training on livestock care, health and related training, short-term income support, and other services. Randomized trials in seven countries show that the program leads to substantial shifts from casual labor to farm self-employment, and 10 to 40% increases in household consumption or earnings compared to control groups, lasting at least two to four years.⁴³
- In northern Uganda, a program called *WINGS*, targeted 15 ultrapoor households in small villages in the most war-affected districts, shortly after people returned from forced displacement. Most were women, and a nonprofit organization offered them five days of business skills training, \$150 cash grant, encouragement to become petty traders, and follow-up visits over the next few months. A randomized evaluation showed that the ultrapoor started small trading enterprises, nearly doubled their earnings, and household consumption increased by about a third—about \$39 a month in purchasing power parity (PPP) terms.⁴⁴
- Under another program in northern Uganda, the *Youth Opportunities Program* or YOP, the government invited men and women aged 18 to 35 to form groups of about 20 and prepare proposals to get vocational training and start individual enterprises. The groups received grants of nearly \$8000 (nearly \$400 per person). Four years later, a randomized evaluation in some of the moderately war-affected districts showed that among members of the groups that received grants hours of work were up 20% and their earnings were about 40% greater.⁴⁵
- Business plan competitions in non-conflicted African states show striking returns. A competition for \$1000 prizes resulted in an increase in average monthly profits of \$150, an 80% annual return on investment.⁴⁶ A number of other studies have looked at

⁴²See Ralston (2014).

⁴³See Banerjee et al. (2015) and Bandiera et al. (2013).

⁴⁴See Blattman et al. (2015). Market exchange rates do not reflect the fact that a dollar goes further in a developing country, and so they would understate the impact. A PPP exchange rate adjusts for this added purchasing power. In Uganda, for example, estimates suggest a dollar goes 2.5 times further than what the official exchange rate implies. We will try to use PPP impacts throughout this paper.

⁴⁵Blattman et al. (2014)

⁴⁶Fafchamps and Quinn (2015)

cash and in-kind capital transfers to existing business owners, especially in Sri Lanka and Ghana.⁴⁷ Male business owners have relatively high returns to cash and in-kind transfers alike, increasing business size and profitability. Others find high returns to capital in agricultural enterprises as well.⁴⁸ The evidence is more mixed for women.

Despite the growing number of studies, there are almost none comparing capital transfers with and without training.⁴⁹ Even so, programs where both capital and skills were provided suggests they can be complements.

- In the YOP program in northern Uganda, discussed above, the \$400 per person was invested partly in skills (about 15%) and the rest was devoted to start-up capital.
- An example with high risk men comes from program for ex-combatants and high-risk men occupying rural resource enclaves and other “hotspots” in rural Liberia. The program was developed by Action on Armed Violence (AoAV) and provided 3 to 4 months residential agricultural training plus about \$125 in startup tools and materials. Most of the men were interested in farming and had access to land (indeed most were farming before) but the skills and capital led them to increase the land and time they farm, use more advanced techniques, and increased their incomes about 20%. There are two other notable findings. One is that a group of men who did not receive their capital for exogenous reasons did not increase their farming. Skills were not enough. The second is that the program, which was quite costly, would not pass a cost-benefit test were it not for the positive spillover effect that shifting to farming had on reducing illicit mining and mercenary interest.⁵⁰

In most of these success stories, programs targeted people likely to invest (young, poor, and credit constrained), framed any transfers in terms of business development, in some cases provided some training, and in other cases screened people on their business interest and aptitude. While the high returns to the program probably reflect a high return to capital among this selected group, this is difficult to separate from framing and training effects.

2.2.2 Cash alone

Nonetheless, there is growing evidence that cash alone, conditional and perhaps even unconditional, stimulates self-employment and other high return investments.

This finding runs counter to the widespread concern that the poor will misuse cash. Recently, researchers collected evidence from 19 cash transfer studies around the world and found

⁴⁷See de Mel et al. (2008, 2012b); Fafchamps et al. (2014)

⁴⁸See Udry and Anagol (2006). Also see Banerjee and Duflo (2011) for a broader review of the evidence on returns to capital.

⁴⁹An exception is Nathan Fiala (2015), who experiments with capital (either loans or grants) and training with existing business owners in northern Uganda. After nine months, loans plus training led to more persistent profit increases among men (but not women) than loans alone. In contrast to much of the literature, discussed below, grants have little effect.

⁵⁰Blattman and Annan (2015)

almost no evidence of increased spending on alcohol, tobacco, or other “temptation goods”.⁵¹ The STYL program in Liberia, mentioned above, gave \$200 unconditional cash grants to the highest-risk men, including serious drug users, and even these men did not spend much of the cash on temptation goods.

One finding from these studies relevant to fragile states is the effect of the grants in Sri Lanka after the Tsunami. Returns to capital seem to have been even higher in this post-crisis period, since the businesses were out of equilibrium and moving back to their optimal level of capital and labor after the crisis.⁵²

Conditional cash transfer (CCT) programs give monthly or annual grants to poor households that enroll their children in school and vaccinate them. Randomized evaluations, mainly in Latin America, often ignore enterprise growth, and so we do not have much evidence on the labor market impacts. However where we do have such evidence, as in Mexico and Nicaragua, CCT programs seem to have stimulated self-employment and nonfarm earnings.⁵³

It is difficult to say whether the success of these programs is due to the capital or some subtle feature of the program: the screening of existing entrepreneurs or the framing of the grant or conditions. Probably the answer is “both”. There are a huge number of barriers and frictions that limit the growth of informal enterprises. Capital or cash alone will not relieve all these constraints, and so the returns to cash or capital alone are limited.

Nonetheless, they are an important start. There is a growing amount of evidence that the poor have high returns to capital, and that even with with cash alone they make high return investments.

The evidence on unconditional cash is still preliminary but promising. In rural Kenya, the *GiveDirectly* program delivered one-time cash transfers of \$400 to \$1500 PPP to poor people’s mobile phones. In general, 8 months after grants, recipients’ households had invested the cash in durable household assets and improved their consumption.⁵⁴ While it remains to see if these returns are sustained in the long run, there is some evidence of business start-up by younger adults.⁵⁵

As we might expect, these high returns might not hold in insecure environments. In the case of the \$200 transfers to high-risk men in Monrovia mentioned above, a month after grants the men had started petty businesses that gave them significantly more work hours and incomes, and they reduced their involvement in crime. However, a year later all these gains

⁵¹Evans and Popova (2014)

⁵²de Mel et al. (2012a)

⁵³See Gertler et al. (2012) for Mexico and Macours et al. (2013) for Nicaragua. See Fiszbein et al. (2009) for a general review of the conditional cash transfer evidence.

⁵⁴Haushofer and Shapiro (2013)

⁵⁵Another major source of cash is remittances. For households with a migrant, evidence from several countries suggests that increases in remittances get invested at least in part, and that the propensity to invest remittance income is about the same as other income (e.g. Yang, 2008; Clemens and Ogden, 2013). But migration itself is an investment (often a much higher return investment than small businesses) and often it removes a laborer from the household. Thus a lot of the evidence on the effect of migration on business investment is ambiguous. Moreover, that migrant’s income could provide a stream of remittances for eternity, changing incentives to invest in a business in ambiguous ways.

had dissipated. The reason, it seems, is that these men lived in insecure neighborhoods and homes, and were robbed at least once every other month. Without secure property rights they were unable to accumulate capital.

Nonetheless, none of these program experiences suggest that cash transfers create a dependent population. The poor put transfers into durable assets, liquid savings, or income-generating activities. At worst they increase their consumption for a time, especially during bad shocks. At best they use the cash to increase their earnings permanently. A common fear is that cash is unsustainable and creates dependencies. But there is nothing unsustainable about higher savings drawn down over time, and the effects on enterprise growth suggest recipients are anything but dependent. More importantly, supposedly more sustainable alternatives such as microfinance have almost none of the poverty or employment impacts of capital transfers, as we see next.

2.2.3 Microfinance

Since capital is so crucial, and credit constraints so often binding, microfinance seems to some like a more sustainable and logical solution than cash transfers. A belated series of randomized trials, however, has called the success of micro-loans at reducing poverty into question. After reviewing the two decades of evidence on such loans, one major review concluded “there is no evidence of large sustained consumption or income gains as a result of access to microcredit.”⁵⁶

People certainly benefit from access to credit. It can help them cope with crises, and invest in expensive items such as new roofs or farm equipment. The overwhelming popularity of savings and loan groups speaks to their value. But the loan terms seldom extend more than a few months, repayment often begins immediately, and the interest rates range from 20 to 200% a year (in part because they are costly to maintain). Credit on these terms makes borrowing for starting a microenterprise unattractive. When returns to capital are moderate, or vary considerably, the expected value of these risky returns may not exceed the cost of capital, and so borrowing to invest is not a good option.

There is some hope for improvement. If transaction costs can be brought down, and reduce interest rates, we should expect more households to borrow to invest. The same could be true if loan periods are extended or borrowers are given a grace period before they have to begin repayment. In India, for instance, investment and business profits rose somewhat when people were offered a small loan with a two month grace period at 55% interest per year, rather than a loan they had to repay immediately at 48% interest.⁵⁷ Until borrowing costs fall, however, it is hard to imagine large and rapid employment growth from microfinance.

2.2.4 Insurance and risk

The risk of theft is just one of the many risks that small entrepreneurs face, even in more stable economies than Liberia's. The evidence suggests that a lack of insurance interacts

⁵⁶Banerjee (2013). See also Banerjee et al. (2015).

⁵⁷Field et al. (2013)

with a lack of capital to limit investment, and that programs that offer insurance of some sort may have significant effects on self-employment.⁵⁸ Take for example the effects of Mexico's large conditional cash transfer program on business development. The cash likely relieved a credit constraint, but a recent study argues that it was the expectation of a regular cash transfer that spurred the most investment.⁵⁹ The families that knew they would get transfers for longer were more likely to take risks and invest in enterprise, because the expected future transfer ensured they would have some future income no matter what. If so, this suggests that the expectation of regular transfers could stimulate enterprise.

It may also be possible to provide insurance for some enterprises. Rainfall index insurance is becoming increasingly common in the developing world where so many depend on agriculture. Relieving both credit and insurance constraints could spur more investment, as in Ghana where one recent study showed that a cash transfer alone was not enough to stimulate investment and growing profits among established farmers, but that cash combined with an insurance policy did spur investment and growth. In general, however, rainfall insurance programs have tended to have low take-up, perhaps because of credit constraints or poor program design.⁶⁰

There are other reasons to be cautious about insurance products, at least with their current cost and delivery mechanism. Researchers ran an experiment in post-revolution Egypt, to measure the impact of insuring microenterprises against macroeconomic and political uncertainty. More than a third of the people offered the insurance bought it. However, purchasing insurance did not change business loans or equipment investments, in part because businesses mostly invested in higher turnover items such as inventories and raw materials.⁶¹ Macroeconomic and political risk might not hold back microenterprise investment, though it certainly can help businesses cope with shock when they do occur.

2.2.5 What happens when these programs go to scale?

Almost none of the above studies deal with general equilibrium issues, namely whether injecting capital and creating businesses simply crowds out sales from existing business owners, or leads to oversupply and falling prices. One reason is that, in most of these studies, the number of small enterprises is small relative to the size of the economy. But a reasonable concern is that people are simply starting identical businesses selling the same low-value goods and services as everyone else. Is this a sustainable and large-scale development strategy?

This is a legitimate concern, and large-scale programs should be evaluated with them in mind. But there are a few reasons for optimism:

- In the *WINGS* intervention in northern Uganda, there were also few adverse spillovers. These were small, rural villages of about 100 households, and 15 received \$150 each

⁵⁸For a review see Banerjee and Duflo (2011).

⁵⁹Bianchi and Bobba (2013)

⁶⁰Carter et al. (2014); Binswanger-Mkhize (2012)

⁶¹McKenzie and Groh (2014)

to start small petty trading enterprises. Despite the fact that this was a huge capital injection to the economy, greatly increasing the number of petty traders, the researchers saw almost no effect on prices. Moreover, while existing petty traders were crowded out of the sector, they tended to invest in another enterprise instead (such as agriculture) and their incomes stayed steady.

- In the *YOP* intervention also in northern Uganda, the 20 young people in each village generally trained in the same trade and started similar vocations. Yet they still managed to increase their earnings by a great deal, despite the influx of many new vocational enterprises. In all, tens of thousands of young people received training under *YOP*, mainly in just three or four trades. We do not know what the effect was on the earnings of people previously in these vocations, but the negative spillovers were not so great as to eliminate program effects among the treated young people.

One of the forces moderating any spillovers is the reallocation of capital across sectors. To the extent that programs lead to the oversupply of certain goods or services, we see earnings reinvested elsewhere. In northern Uganda, earnings were often reinvested in livestock or farms.

Other forces also mitigate negative spillovers, or even produce positive ones. For instance, new entrepreneurs have more to spend, and so could be a countervailing demand effect.⁶² Moreover, to the extent that existing businesses have market power, and charge a price above the competitive one, new entrepreneurs could actually increase competition and bring down prices for consumers.⁶³

On the other hand, truly large-scale programs could be less impactful if they mean that capital is no longer scarce in the economy, reducing the returns to capital. The Sri Lanka tsunami recovery example above is instructive. The returns to capital injections were highest in retail, where those who received capital recovered well in part because most of their competitors did not have it. But the returns to capital were low in manufacturing, since supply chains were disrupted and it was not as useful to recover alone if your suppliers and buyers did not. Hence there is reason for caution.

2.3 Workfare

Workfare programs are more and more common as social safety net schemes. For example, the National Rural Employment Guarantee (NREG) scheme in India is possibly the largest employment program in history. It provides up to 100 guaranteed days of public works employment at a minimum wage to all Indians. In 2008–2010, for instance, NREG generated approximately 3.3 person-days of employment per rural inhabitant per year in the average

⁶²Studies of Mexican conditional cash transfer programs find that the transfers increase consumption of both cash recipients and program-ineligible households (Hoddinott and Skoufias, 2004; Angelucci and De Giorgi, 2009). Also, as in Buera et al. (2012), new entrepreneurs could supply less labor to the market, more labor to their own business, and may even demand labor from the market instead.

⁶³Cunha et al. (2011) find some evidence that imperfect competition partly explains the price effects of cash versus food transfers in rural Mexico.

district.⁶⁴ Another example is Ethiopia's cobblestone project which pays people to quarry, chisel, transport, and lay cobblestone roads. From 2007 to 2011 it employed up to 90,000 workers in 140 towns.⁶⁵

Strikingly, there is little to no rigorous, counterfactual-based evidence of the effects of a workfare program in a low-income country.⁶⁶ A range of casual, often descriptive evaluations suggest that these programs help people boost their stock of savings or pay off debts.⁶⁷ It is not clear, however, whether there are lasting effects on poverty or income-generation, or whether post-crisis programs help stimulate recovery.

One exception is the NREG program in India, but the way in which it was rolled out impedes easy evaluation. Different evaluation strategies have yielded different results. Those that compare late-receiving districts to early-receiving districts have found that NREG public employment crowds out wage work and self-employment, and increases agricultural wages by about 5%, redistributing income from richer to poorer households.⁶⁸ Studies that compare districts on either side of the eligibility cutoff during rollout, however, find no evidence of a general increase in wages or change in employment, but rather than the program simply acts as a safety net for those who suffered bad shocks (though the results are imprecise enough that they include the wage increases mentioned above).⁶⁹

Overall, NREG is a good example of how one of the world's most important employment programs has essentially ambiguous results, in part because of the absence of a research design in rollout.⁷⁰

For such an important intervention, the overall lack of evidence is striking. This is a gap to be filled.

More investigation in fragile states is especially important because, unlike the supply-side employment interventions, the consumption benefits of workfare programs are probably less dependent on the macro environment. These programs are also promising engines for restarting local economies. As we discuss in the next section, when targeted to high-risk men these programs could also deter crime or violence. Plausibly, an attraction of these cash-for-work programs is that they can be run in relatively uncertain, unstable environments such as a

⁶⁴See Berg et al. (2013), who also notes that public works programs have been common historically in countries now rich. The English Poor Law of 1834 required that the poor should reside in a 'workhouse' in order to receive welfare, and British administrators in colonial India frequently used public works as a tool to deliver famine relief.

⁶⁵Broussar and Tekleselassie (2012)

⁶⁶One exception is a recent unpublished preliminary analysis of the impacts of a labor-intensive public works program in Sierra Leone, that exploited a staggered roll-out to examine short term impacts (Rosas and Sabarwal, 2015). Initial analysis suggests that participating households increased investments in homes, productive assets like small livestock, and existing businesses, as well as gaining income increases, although could only be measured in the immediate 3 months after inclusion in the program due to the roll-out design.

⁶⁷See for instance Subbarao (2003, 2010).

⁶⁸Berg et al. (2013); Imbert and Papp (2015)

⁶⁹Zimmermann (2015)

⁷⁰Likewise, a non-experimental evaluation of a large Argentine program post-financial crisis showed that the program led to short-run increases in income but there were no evidence long run effects. But non-random selection into the program was substantial enough that these are probably too difficult to identify reliably outside an experiment.

financial crisis or an unstable and violence-prone region. They can also be adapted to crises, expanded in the face of price shocks and other economic and political instability.

2.3.1 Why not cash without work?

An obvious question is why have a cash for work program rather than a cash transfer program? In principle, cash or cash plus other inputs (from framing to training) could increase investment and consumption, and even have similar effects on the low-skill wage. There are a few potential answers.

A strong economic argument is targeting, as public works programs will tend to attract those with the lowest opportunity cost of time, and hence will generally get poorer and underemployed people. Unfortunately, this can also select out non-able-bodied and those who cannot freely work outside the home. The injured, disabled, or elderly will probably not be represented, and women may not be allowed to participate (by their families or norms) or able to because of other part-time household duties.

There are also important political considerations. It may be politically easier to raise and disburse cash for wages rather than simple transfers, particularly when the program leads to the creation of public infrastructure, such as roads or irrigation. It may be more difficult to falsify or steal money from cash-for-work schemes, since the workers' work hours and the public work itself are fairly observable.

Finally, some advocates link public works to a cultural shift. Some public works with a community-based focus aim to develop social cohesion while also providing income support. In principle, public works targeted at the long-term unemployed could shift attitudes to work and increase willingness to seek out employment in the future.

Against these advantages lies one very large disadvantage: simple cash transfers or basic income could be more cost-effective, and they would not require the poorest to do unpleasant and potentially unproductive work.⁷¹ A direct comparison of cash to cash for work programs is an obvious area for investigation.

2.4 The special case of ex-combatant reintegration

Beyond the Liberian study discussed above, there is a broader literature on ex-combatant reintegration. It is difficult, however, to draw general lessons for a few reasons. One is that there are few rigorous evaluations. The second and probably more serious problem is that most of the interventions have (often by their own admission) been poorly designed and implemented.⁷² As a result, it is not surprising that most have found little evidence of impact.

⁷¹Alik-Lagrange and Ravallion (2015) and others have pointed out that the displeasure of working and its crowding out of other activities reduce well-being enough to make basic income or cash transfer programs better for the poor.

⁷²Humphreys and Weinstein (2007); Levely (2011); Kingma and Muggah (2009); Tajima (2009)

Even so, a few important lessons can be drawn. First, very few of these programs actually attempt true reintegration of ex-combatants. They are usually part of a politically-negotiated disarmament, demobilization, and reinsertion (DDR) program. They aim to pay ex-combatants a short term peace dividend of sorts, and give them the basic skills, tools, or money both to make demobilization more attractive but also return home (or wherever they go) with something in their hands.

Second, these programs are extremely varied. It is common to give moderate amounts of cash (such as \$50 or \$200), household items, and skills training programs (or vouchers). While skills training efforts aspire to reintegration, their patchy track record might not only reflect poor returns to skills but also the poor quality of what was offered.

In addition to the Liberia studies mentioned above, one of the best performing interventions comes from Burundi. A national agency offered a reinsertion allowance of \$60 to \$370 PPP per month, for 18 months, with the amount depending on rank. A business start-up grant worth about \$1200 was also offered, but for various implementation reasons, ex-combatants in only 2 of the 3 major regions received the start-up grant. Comparing those who received it to those that did not, researchers found a large reduction in poverty among those who received the start-up grant.⁷³ Precise returns on capital are not known.

A few cautious recommendations for future ex-combatant reintegration programs (or programs for high-risk men in general) can be made. Programs that emphasize capital over skills will tend to have higher returns. And we have no reason to believe that high-risk men in general will waste or abuse cash. In the STYL program mentioned above, there was virtually no evidence of ex-combatants and active criminals and drug users using an unconditional \$200 grant for drugs, alcohol, arms, or other “bads”. Rather most was invested or saved.

Business or agricultural skills programs could complement cash and increase returns and hence reintegration. This is fundamentally uncertain, however, needs to be tested, with a particular eye to the cost-effectiveness of skills training versus other program components (such as more capital).

Intensive programs should be targeted at those at the highest risk of crime, violence, or future insurgency. These may or may not be ex-combatants. Indeed, ex-combatants have incredibly heterogeneous experiences, and many are quite resilient and find themselves accepted easily at home. Simple capital-focused programs may be sufficient. For the highest risk men, programs that target soft skills (such as self control), identity, and risky group affiliation may be especially effective and deserve experimentation.

3 The links between employment and social stability

We next turn to the effects of employment and higher incomes on social stability. The belief in this link is a major reason nearly every fragile state lists employment as a top priority.⁷⁴

⁷³Gilligan et al. (2012)

⁷⁴See for instance del Castillo (2008); World Bank (2012).

What do we mean by social stability? For the most part, we focus on violent uprisings, including insurrection and terrorism. We also consider serious crime. These are actions that tend to harm others or lead to a disruption of the economy.⁷⁵ These are also actions that tend to happen in organized groups, requiring mass mobilization.

3.1 Why do men commit crimes, join gangs, or rebel?

Given this paper's focus on employment, we focus mainly on how jobs and incomes can reduce the chances that a poor or marginalized young man joins an armed group of some form.⁷⁶

Joining a gang or a rebel group is a complex decision, with both conscious and unconscious elements. Crime, gangs, and rebel groups are all not only different from one another, but there is a considerable amount of variation within each category.

Even so, there are theoretical reasons to think that poverty and employment opportunities may play a role, and some commonalities in that role across different kinds of crime and violence. The question is why, and whether employment and poverty play a large or small role in these decisions. There are four main reasons.

3.1.1 Crime and rebellion as an occupational choice

The classic economic view is that crime and rebellion are occupational choices that decline as peaceful opportunities improve. This argument was originally applied to crime but later others extended it to conflict.⁷⁷ In the context of rebellion, wages or economic promises are a form of "selective incentive"—a way to give the people who are putting their lives at risk for a greater cause some private incentives to participate.

Low-ranking criminals and rebels are often paid very little, and many selective incentives are uncertain, and come only in the future (such as the spoils of victory). So we might ask: How well can selective incentives work when they are discounted for uncertainty and risk? An interesting proposition comes from a study of a Chicago crack-selling gang's finances.⁷⁸ The gang's most junior members risked their lives for roughly the minimum wage. The researchers argued that the most reasonable way to view the junior members' decision to join the gang is as a tournament—a situation in which they competed for large rewards that only a small fraction would eventually obtain.

⁷⁵Of course some violence, such as revolutions, can have large positive externalities, at least after the violence subsides. To the extent that state employment interventions could reduce the risk of insurrection, it is worth keeping in mind that they could be tools of suppression to maintain the status quo.

⁷⁶In principle, employment programs could target group leaders as well. Peace agreements and demobilization programs often do. These kinds of negotiated solutions and payoffs with the elites of opposing groups are quite routine in politics. But they are not typically large-scale, and they are not really the province of large state and aid programs, so we ignore them.

⁷⁷For crime, some of the seminal contributions are by Becker (1968); Ehrlich (1973), with reviews by Freeman (1999) and Draca and Machin (2015). For conflict, see Collier and Hoeffler (1998); Hirshleifer (1995); Popkin (1979) or Blattman and Miguel (2010) for a review.

⁷⁸Levitt and Venkatesh (2000)

The evidence from developed countries is generally consistent with this view, at least regarding crime: the rewards from crime are highly skewed to a few, and for most criminals, crime does not pay much. As a result, criminal labor supply is responsive to wages and the expected value of criminal opportunities.⁷⁹ As we discuss below, the evidence emerging from a handful of developing countries is more or less consistent with this view (though, in general, there's too little evidence to make broad generalizations).

If so, employment and poverty alleviation programs play an obvious role: in times of rising wages and work opportunities, young men will be less likely to engage in crime, and it will raise the price of recruitment for armed groups. That is, the opportunity cost of crime rises. This is often called the “greed” or “opportunity cost” based explanation for participation in violence.

Note, however, that while crime versus legitimate work is often framed as an either/or decision, in fact a poor person's best strategy might be both. Illegitimate activities are just another risky, uncertain occupation to add to one's portfolio of work. This may even be true in developed countries with advanced labor markets. A longitudinal labor market study in the US, for example, found that many of the people who self-reported some criminal activity were also active in the non-criminal labour market.⁸⁰ This is another reason for their criminal labor supply to be sensitive to wage changes.

If true, this implies that it might be easier to get people to shift their portfolio of work away from crime or violence, but hard to get them to exit it entirely.⁸¹ Other interventions that make crime less attractive—more enforcement and punishment, or lower returns to crime—might be needed to encourage people to exit crime entirely.

3.1.2 Amenities to membership in armed groups

How much of occupational choice is explained by material incentives alone? If we return to the crack-selling gang in Chicago, an alternative to the tournament story is that junior, minimum wage-earning members of the gang get some non-material benefit from being a member: status, esteem, and social ties of belonging.

Occupations, in this view, are social institutions where participation has intrinsic, symbolic, and social value. In the U.S. and Latin American literature on gangs, crime is an occupational class like any other and offers people valuable social ties and status.⁸² These amenities compensate for some of the risks and uncertainty. In this literature, the frustrations and stresses of unemployment, irregular work, and demeaning job opportunities increase the value of gang association.

One way to think about these social amenities are as club goods—local public goods that are denied to members outside the group. Scholars of religious violence have argued that radical groups are essentially clubs that provide mutual aid, often (but not only) of a material

⁷⁹See Draca and Machin (2015) for a review.

⁸⁰Grogger (1998)

⁸¹For a formal model that illustrates this, see Blattman and Annan (2015).

⁸²See Cramer (2010) for a summary and review.

nature.⁸³ These clubs weed out freeloaders and defectors by requiring sacrifices as signals of commitment, including risky acts of violence. Those who remain value the material, spiritual, and social rewards of gang or armed group membership. The same logic has been applied to U.S. prison gangs.⁸⁴

What could employment programs do in these situations? In principle they could offer other paths to esteem, more peaceful club memberships, and reduce the relative attractiveness of violent clubs. Whether they are viable substitutes, however, is open to debate.

3.1.3 Grievances and non-material incentives

Case studies and ethnographies of crime and conflict often point to anger, outrage, and injustice as incentives to participate in violence and collective action.⁸⁵ This literature is frequently misquoted or misunderstood. Such grievances are often treated as irrational sources of action, whereas selective incentives are rational ones. This is not necessarily the case. Simplifying, we can categorize these grievance arguments into at least three types:

1. **Intrinsic incentives.** Behind many grievance arguments is the idea that an injustice or perceived transgression generates an intrinsic willingness to punish or seek retribution. There is nothing necessarily irrational about a preference for “consuming” a good, even if it is retribution or revenge. For example, an influential ethnography of El Salvadorian insurgents argued that recruits were motivated not by material rewards, but by an intrinsic value in taking part in a movement to punish the government after government forces harmed them or their families.⁸⁶

There are striking parallels in the famous “ultimatum game”—an experimental game that tested across different societies has shown that the average person is willing to pay to punish unfair acts.⁸⁷ This could reflect the expressive pleasure people gain from punishing an injustice.⁸⁸

⁸³See for instance Berman and Laitin (2008).

⁸⁴Skarbek (2011)

⁸⁵In addition to the academic literature below, see an example from an organization’s program experiences with Mercy Corps (2015)

⁸⁶Wood (2003)

⁸⁷In a laboratory setting, player one is given \$10 and told he is to give some fraction of the amount to an anonymous player two, ranging from all to nothing. Player two can accept or reject the offer. If she rejects it, both players get nothing. Repeated experiments show that player twos are typically unwilling to accept less than two or three dollars (Fehr and Gächter, 2000). They are willing to pay to punish unfairness. Even third party observers seem willing to punish unfair allocations in ultimatum games. While there are a number of potential explanations, one is an intrinsic pleasure in punishing a transgression, a reaction that is either genetic or the product of deeply-ingrained social norms.

⁸⁸A final body of evidence that supports the view that preferences are malleable comes from the growing number of studies that observe that exposure to war violence leads people to increase their political participation and pro-social or altruistic behavior, often peacefully. For example, Bellows and Miguel (2006) found that within-variation exposure to war violence in Sierra Leone was associated greater group and community participation. And Blattman (2009) found that rebel conscripts in Uganda were more likely to vote and be community leaders later in life, and that this was mainly linked to exposure to violence. Since then, more than a dozen papers have found similar relationships in other conflicts and countries. This certainly implies that preferences are shaped by experiences, such as violence.

Ideological motivations could also fit in this category. Considering terrorist groups, many scholars have suggested that actions are driven by intrinsic goals, such as beliefs and values, rather than material incentives⁸⁹ Some economists are quite skeptical of ideological motives, but it is difficult idea to prove or disprove.⁹⁰ Historically, however, it is worth noting that building insurgent movements has been a long process of political mobilization, drawing ideas from local historical traditions, political ideology, and theology. Any intrinsic ideological rewards, if they exist, could be a cost-effective substitute for material incentives, especially in resource constrained groups.⁹¹

2. **Loss aversion.** Another possible way to think about grievances comes from “prospect theory”, a framework for how people make economic decisions in practice.⁹² A key insight is that people tend to evaluate their satisfaction relative to a reference point, and that they are “loss-averse”. That is, people seem to strongly prefer avoiding losses than acquiring gains, so much so that losses may be twice as psychologically powerful as gains.⁹³

It is possible to think of the grievance explanation of conflict in terms of people coming to believe they are below a particular reference point, are loss averse, and hence are willing to take costly actions to rectify the situation. We are not aware of formal studies of this idea, however.

3. **Frustration-aggression.** Classic accounts of why men rebel emphasize that economic marginalization and other frustrated ambitions lead men to become angry and aggressive.⁹⁴ On the surface, this connects an injustice to action through outrage, and could be reconciled with either the intrinsic incentive or loss aversion arguments (note the ties, for instance, between frustrated ambitions and reference points). This line of argument, however, is often less conscious and more emotional in nature.⁹⁵ In this case, aggression is not necessarily a conscious action in response to a direct utility benefit, but rather a more impulsive and emotional response to a threat.⁹⁶

While these emotional and threat responses may be independent of employment, some psychologists have associated violent reactions with stress, and poverty or unemployment could elevate stress levels.⁹⁷

⁸⁹Frey (e.g. 2004)

⁹⁰For a critique of ideological motivations in terrorism, see Berman (2011).

⁹¹See Weinstein (2007); Beber and Blattman (2011) for examples, or Cramer (2010) for a discussion of further evidence.

⁹²It was first proposed by Kahneman and Tversky (1979).

⁹³Barberis (2013)

⁹⁴The most famous example is Gurr (1971).

⁹⁵It was rooted in the psychological frustration-aggression hypothesis, dating from Dollard et al. (1939) and still an influential theory of aggression (Berkowitz, 1993).

⁹⁶To be frank the mechanism is not completely clear. Another less rational, or at least less conscious theory linking poverty and unemployment to crime and violence is the sociological concept of anomie (Merton, 1938; Cohen, 1965). Simplified, the idea is that marginalization in society, in particular poverty and an inability to climb in society, leads to a sense of malaise and a higher likelihood of aberrant, anti-social, or violent and criminal behavior. It is consistent, in principle, with the idea of direct utility benefits of aberrant or punitive behavior, or at least an absence of utility penalties for such behaviors.

⁹⁷Berkowitz (1993)

There are a few challenges with this general account of grievances, however. One is that the desire for violent action comes from the shape or nature of preferences, and these are inherently hard to observe, test, and falsify. Also, there are many different accounts and mechanisms, and it is difficult to systematize them or imagine tests.

As we discuss below, while the evidence suggests that material incentives explain only a fraction of violence, the remaining variation is not automatically irrational or random.

If grievances do play a role in armed violence, what role is there for employment programs and poverty alleviation? Grievances could be independent of employment. Even so, it is conceivable that unemployment and poverty breed a sense of injustice, loss, or frustration, especially if people hold some reference point associated with gainful employment and income. Innumerable accounts of angry youths follow this logic. Whether employment programs cause actual employment and income relative to expectations (and reference points), however, is unclear.

3.1.4 Hearts and minds

Not all violence relies on mass mobilization. Scholars of irregular warfare are skeptical of the employment-violence link in those situations.⁹⁸ In irregular or asymmetric warfare (including terrorist groups), small groups rely on civilian support and collaboration, especially in concealing the group and their actions from the state. Unlike regular armed groups, irregular movements may be information-constrained rather than labor-constrained. That is to say, groups compete for the “hearts and minds” of civilians, and civilians may share information with government if doing so could deliver them control of their neighborhood or otherwise advantage them.

In this case, the targets of a government employment program might be potential civilian informers rather than the armed group members themselves. This is one of the primary rationales for public programs and aid during an insurgency: to give civilians incentives to collaborate with the government rather than the insurgents.

3.2 What role for employment programs?

3.2.1 Is there even an income-violence link?

In developing countries, the strongest evidence linking poverty to violence has come from cross-country and within-country studies showing that unexpected changes in income (or shocks) increase crime and conflict intensity. For example, there is a large body of evidence that rainfall, climate, and trade price shocks intensify ongoing wars.⁹⁹ Researchers have

⁹⁸For instance, see Berman (2011); Berman et al. (2011); Berman and Matanock (2015).

⁹⁹Miguel et al. (2004); Dube and Vargas (2013); Bazzi and Blattman (2014); Berman and Couttenier (2015)

found similar relationships between income shocks and crime in Mexico and India.¹⁰⁰ Few studies, however, find a robust effect of income shocks on the outbreak of new conflict.¹⁰¹

One interpretation is that falling wages and farm output make it easier for armed groups to recruit. The cost of recruitment is not a decisive factor in a group's decision to rebel, but if there is already some form of organized violence, the cost of recruitment affects the intensity of crime and violence.

Not all the evidence is consistent with this story, however. In Afghanistan, Iraq, and the Philippines there is little correlation between employment levels and insurgent attacks at the district level.¹⁰² This evidence has fed into the idea, discussed above, that some types of insurgencies—irregular insurgencies, or ones that recruit based on club goods or ideology—are less susceptible to economic conditions.

If true, large-scale employment programs are best positioned to reduce violence in a time of active, regular warfare or instability, when armed groups or criminal gangs rely on mass mobilization of “foot soldiers” rather than small and committed cadres. In times of peace, employment programs might have more impact on non-collective forms of violence, like certain forms of crime, or perhaps mercenary recruitment into neighboring countries.

The flaw in these arguments Overall, these arguments seem plausible. However, they are also quite speculative, largely because of a “unit of analysis” problem: we are interested in understanding the individual person's decision to rebel or commit a crime, or perhaps a group's ability to recruit, but most of the evidence is at a regional or national level.

Income shocks don't just affect a group's ability to recruit, however. Falling prices or output can affect government revenues or counterinsurgency capacity, both at the national and local level.¹⁰³ Thus it's hard to take the correlation between income shocks and violence as evidence for the ease of recruitment and other opportunity cost accounts of rebellion.

For this, we would like more individual-level evidence linking employment or income-earning opportunities to the decision to commit crimes or rebel. Such a literature is now emerging, in the US and in developing countries, and we discuss some of the findings below.

3.2.2 Raising the opportunity cost of crime and conflict

The connection between more employment and income and a higher opportunity cost of crime or rebellion is obvious. The real question is how important is opportunity cost on the margin, and how much participation does it explain. Overall, the evidence suggests that this

¹⁰⁰Iyer and Topalova (2014); Dube et al. (2014)

¹⁰¹When they do, this is often because they conflate the outbreak of new conflicts with the probability a conflict continues.

¹⁰²Berman et al. (2011)

¹⁰³In addition, aggregate shocks may also affect the recruitment strategies of armed groups or incentives to pillage, as in the Congo (Sanchez de la Sierra, 2015). Finally, weather and other income shocks could incite conflict by inducing migration (such as pastoral people moving to settled lands) or increasing struggles for resources like water.

margin is important, but does not explain the majority of violent participation, and is not as strong in all contexts.

Evidence from the United States and other Western countries generally point to a modest relationship between employment and crime. For example, across a range of developed countries, studies suggest city-level crime rates fall as wages rise.¹⁰⁴ According to one review of the U.S. evidence, a typical estimate is that a one percentage point increase in the unemployment rate is associated with a one percent increase in property crime.¹⁰⁵ Violent crime, however, does not vary as systematically with the unemployment rate. To the extent it does, the explanation consistent with the pure opportunity cost story is that violence is a complement to or byproduct of certain forms of crime (such as drug dealing).¹⁰⁶

There are also a large number of U.S. employment programs for incarcerated people, especially young offenders. For instance, a small body of evidence shows that residential job training programs have at least short term success in reducing crime and increasing incomes, but that these effects may be short-lived.¹⁰⁷ These include the Job Corps and ChalleNge programs, discussed above.¹⁰⁸

One of the problems with the experimental evidence, however, is that few programs have been successful at creating employment and raising incomes, and without this “first-stage” effect, it is difficult to assess the effects on crime and violence. Many of the successful employment programs, moreover, do not tend to measure effects on crime or conflict, or were not studying populations with an opportunity for violence or crime.¹⁰⁹

Even so, some of the studies discussed in previous sections confirm the impression that rising employment opportunities modestly reduce crime and violence.

- For instance, evidence from India’s NREG scheme suggests that the workfare program moderated Naxalite violence. Prior to NREG, there was a correlation between poor rains and the intensity of the government-Naxalite conflict. Using the phased roll-out of the program to test impacts, NREG seems to mitigate this rainfall-conflict relationship.¹¹⁰ That said, it is not clear this is support for the opportunity cost mechanism, since it is not clear that economic incentives are used by the Maoist insurgency, and it could easily be state finances or grievances or some other mechanism driving the rainfall-conflict relationship. Nonetheless, the largest scale employment program in

¹⁰⁴See Freeman (1999) for a review and for more recent contributions, Fougère et al. (2009); Gould et al. (2002).

¹⁰⁵Levitt (2004)

¹⁰⁶Draca and Machin (2015)

¹⁰⁷See the review by Kautz et al. (2014), for instance.

¹⁰⁸There is a concern that the problem is with the typical residential approach rather than the job training itself. Also, as we discuss below, where these work in the long run, the mechanism could be socialization rather than opportunity cost.

¹⁰⁹For example, the two northern Ugandan employment programs discussed—YOP and WINGS, by Blattman et al. (2015, 2014)—raised incomes but the populations did not have much proclivity for crime or opportunities for violence. Hence the effect of such an income change where there are opportunities for crime or some form of collective violence is unknown.

¹¹⁰Fetzer (2013). Again, the non-experimental rollout of the program makes causal inference somewhat difficult.

the world seems to have a substantial impact on the intensity of violence (just as in the cross-national cases), and this is important.

- One of the few experiments in this area is the AoAV agricultural training program for ex-combatants in Liberia, discussed above. This program had two important effects on crime and violence that are consistent with the opportunity cost view:

First, men who complied with the program increased their agricultural output and incomes and shifted their portfolio of work activities, by about 20 percent, away from illicit mining and towards agriculture. (In general they were not involved in other forms of crime, even in the absence of the program). But the program had no effect on participation in illicit mining. Men did not exit this illicit work, in line with the idea that men will tend to maintain multiple streams of risky income, and exiting crime is difficult. There are interesting parallels to the studies of US crime and drug gangs, discussed above, that find that the lowest positions are quite poorly paid and that labor supplied to crime is highly sensitive to the relative returns of peaceful versus criminal work.

Second, the program may have led to a reduction in mercenary interest, though not for the expected reasons. About a year after the training ended, an election crisis in Côte d'Ivoire led to a short war, between 3 and 10% of men in the control group reported actions such as attending secret meetings with recruiters or being willing to fight at the going recruitment fees. None of the sample actually went to fight, since the war ended abruptly. Nonetheless, treated men were about a quarter less likely to report these mercenary recruitment proxies. The men least likely to exhibit the recruitment proxies were the ones who did not receive their package of materials and had been offered a \$100 grant in the near future. The small cash transfer, which was essentially conditional on not leaving to fight, was an effective deterrent in this case.

- Finally, recall the other Liberian study, of the STYL therapy followed by a cash transfer. As discussed above, the men invested the cash transfer and it led to short term income gains. Those who received the cash also reduced stealing incidents by a third, again only in the short term. Once the effects on work and incomes dissipated, so did the reduction in crime from cash alone.

The (absence of) evidence from terrorism One important caveat is that very few studies have found any connection between economic status and participation in terrorism. Where there are data, it seems that the people who commit terror acts or join terror groups tend not to be the poorest, the least educated, or have low opportunity costs.

If terrorist groups want a small cadre of highly motivated, high-performing recruits, it may make sense to recruit from the better educated and even employed. Indeed, giving up gainful employment could be a signal of ideological commitment or other non-material incentives for committed participation.¹¹¹

¹¹¹Krueger and Maleckova (2003); Krueger (2008) review the theory and evidence, much of it from scattered data on civilian supporters of, or participants in, Middle Eastern groups who employ terror tactics.

There is some evidence, however, that poor economic conditions help terror organizations recruit more able, better-educated people to participate in more complex, higher-impact terror missions. For instance, high levels of unemployment seem to have enabled Palestinian terror organizations to recruit better educated, more mature, and more experienced suicide terrorists, who in turn attacked more important Israeli targets.¹¹²

While economic conditions may matter on the margin, however, most scholars tend to argue that the motivations for terror are unrelated to economic status or economic grievances, and that these convictions are strong enough that economic conditions are unlikely to affect them. In general these findings are consistent with the idea that employment programs can deter men from especially material opportunities, such as crime or mercenary work, or particularly “greedy” conflict. But they may not deter participation in more expressive or ideological violence.

3.2.3 Employment and non-material incentives

One of the most frustrating aspects of studying crime and violence is that it is difficult to say why a change in income or employment affects violence. Does poverty or unemployment affect the opportunity cost alone, or are poverty and unemployment also sources of alienation and frustration?

In principle, employment programs could relieve a grievance or provide social rewards. For example, ethnographic accounts often argued that poor employment conditions reflect systematic discrimination in labor markets, schools, and financial institutions—all sources of grievance.¹¹³ In general, however, these nonmaterial explanations are very difficult to measure and test.

As a result, we are not aware of any rigorous proof of the non-material motives. The flip side of this is that we are not aware of tests that truly nail down the opportunity cost motive, either. Where economists have seen an income-violence link, they tend to interpret it through a traditional economic lens, but in reality it is usually impossible to know. In cases of crime or mercenary opportunities, as with the Liberia evidence above, it is difficult to see a grievance at work. This suggests there is some truth to the opportunity cost story. But most situations are not so clear cut.

This is probably the weakest area of quantitative research. It is not simply that there are too many poorly designed or underpowered studies, but rather that non-material explanations for violence, especially of grievances, are seldom the focus of new theory or quantitative tests. This is probably one of the most wide open realms of investigation in the field of conflict.

¹¹²Benmelech et al. (2012)

¹¹³Many of these accounts, reviewed by Cramer (2010, 2007), also argue that gangs and other armed groups can offer some young men what the formal labour market does not: income prospects, a source of respect, and social ties of belonging.

3.2.4 Socialization as a solution to expressive and ideological violence?

The sole exception could be the nascent experimental literature on socialization. A large, largely qualitative literature on militaries, street gangs, and armed groups describe how groups use a mixture of coercion, indoctrination, and encouragement to shape young people's self-image and behavior.¹¹⁴ Rehabilitation programs often use the same techniques to reverse the process.

Above we discussed cognitive behavioral therapy interventions, from Chicago to Liberia, that try to socialize at-risk and high-risk men by targeting behavior change directly, through behavioral therapy, rather than indirectly through employment.¹¹⁵ There are striking parallels between these behavioral therapies and the socialization techniques used by gangs and armed groups—appearance change, role models, repetitive practice, and positive reinforcement.

At the same time, one pattern emerging from this evidence seems to be that therapy alone may have only temporary effects. In both Chicago and Liberia, behavioral programs alone had large but apparently transitory effects, dissipating with one year. In contrast, after one year the STYL program in Liberia had larger and sustained impacts on crime, violence, and other anti-social behaviors when it was accompanied with economic assistance—in this case, cash.¹¹⁶ One hypothesis is that the economic assistance reinforced and boosted the effects of the therapy, by insulating the men from adverse shocks for a time, and enabling them to practice their new skills and identity, and perform (in the eyes of the community) as a normal society member for longer. The marrying of employment and therapeutic interventions seems to be a promising area for future research.¹¹⁷

3.2.5 The trickiness of buying hearts and minds

Finally, employment programs could reduce violence to the extent that they build government support, provide a stake in peace, and encourage civilians to inform against terrorists and

¹¹⁴Vigil (2003); Wood (2008); Maruna and Roy (2007); Beber and Blattman (2011)

¹¹⁵For US examples see Kautz et al. (2014); Heller et al. (2015). For Liberia see Blattman et al. (2015). Meta-analyses of adolescent and adult interventions in correctional institutes find that CBT-informed programs that target criminogenic behaviors among the highest-risk men reduce recidivism more than alternate approaches (Andrews et al., 1990; Lipsey, 2009). In this literature, schooling also receives attention for its effects on socialization and peers, perhaps even more than its impacts on long run earnings and the opportunity cost of crime. Evidence from the US suggests that schooling can affect the preferences and skills that drive risky behavior, including crime and violence (Deming, 2011; Bertrand and Crépon, 2013).

¹¹⁶Blattman et al. (2015)

¹¹⁷Schooling, training and other employment programs could also pull men away from violent social networks. This includes risky peers, who in US prisons appear to influence future criminal behavior Bayer et al. (2009). Programs can also have a direct “incapacitation” effect on crime and violence, because men in school, workfare, or correctional programs have less time to commit crimes. It is important to distinguish these effects from true changes in peers, preferences, or other effects of the intervention. Nonetheless, incapacitation effects can be important. For instance, with the AoAV rural ex-combatant reintegration program in Liberia, Blattman and Annan (2015) find that waiting for a cash transfer program may have deterred high risk men from illicit resource extraction and mercenary recruitment. In principle cash-for-work or certain conditional cash transfer programs could have the same result.

irregular insurgents. There is some evidence to support this. Within Iraq, for example, small-scale reconstruction projects funded by the US military led to fewer insurgent attacks.¹¹⁸

Counter-insurgency is seldom predictable or simple, however. One of the more striking findings, seen in India and the Philippines, is that state and aid programs prompt a sudden spike in insurgent violence.¹¹⁹ This spike tends to happen shortly before or shortly after the program is received, and a common interpretation is that it is an insurgent attempt to sabotage or capture the program, or retaliate in the face of this display of government strength. In principle, this could indicate their expected success at buying hearts and minds. In neither case, however, are there long term data to say.

Crime and conflict are complex strategic exercises, and so programs that strengthen the government in any fight may have unexpected consequences for violence, at least in the short term. Based on the above findings, plus data on aid projects in Afghanistan, several researchers have argued that aid programs are most likely to reduce violence when they are less vulnerable to sabotage, when they are designed with community preferences in mind, and when they can be conditioned on government cooperation (i.e. they can be withdrawn or targeted selectively).¹²⁰ Many employment programs fit this description.

4 Implications for program design and research

It is tempting to look at employment in poor and fragile states as a complex problem where we do not have evidence, especially when it comes to reducing violence. While this review reveals a huge number of gaps in our knowledge, it also shows that social scientists have strong hypotheses about what should work, rooted in theory and rigorous evidence. A lot of empirical work is currently in progress, so in the coming two or three years we should know more. In the meantime, we think there are some lessons for implementing and designing future programs.

4.1 Immediate implications for programming

4.1.1 Shift the emphasis to capital-centric programs

When it comes to labor market and entrepreneurship programs, the boilerplate solution in poor and fragile states has often been training or human capital investment. The evidence suggests it is time to reconsider skills training as an approach.

Rather, the evidence suggests that young people have high returns to capital, at least when the political situation is stable. Policymakers have been right to be skeptical of capital-centric programs. Too many people seem to start unoriginal businesses like tailoring, carpentry,

¹¹⁸Berman et al. (2011)

¹¹⁹See Crost et al. (2014) on the Philippines, and Khanna and Zimmermann (2014) for India, which happens to look at the same NREG program described above.

¹²⁰Berman et al. (2013)

livestock-raising, or retailing—providing the same goods and services as anyone else. How profitable can these businesses possibly be?

The answer, so far, seems to be “pretty profitable”. It would be wrong to think of these businesses as careers. Capital injections seem to be used to add new income streams to the portfolio of work, or expand an activity that was previously held back. This might only lead to people working an extra 5 or 10 hours a week. Yet, the extra few dollars a week they earn from this additional work can represent a huge increase in earnings if they are only earning a few dollars a week to begin with. The effects can be empowering rather than dependency-creating.

Many of the long term studies suggest these gains are sustained over several years, long enough to provide payback on the initial capital injection. For example, if a \$500 program of cash, business skills training, and mentoring helped a poor rural woman earn \$15 a week instead of \$10 in perpetuity, the present discounted value of those benefits is more than \$5000—more than ten times the cost of the program.¹²¹ Even if those benefits lasted only three years, the benefits would more than cover the cost of the program, increasing people’s incomes by 50% in the meantime. The studies we have reviewed suggest these returns are extremely plausible.

It is too soon to say what the long term effects will be. People may simply plateau at a higher level, or, particularly if property rights are insecure, fall down to where they were before. But it is equally plausible that capital-centric programs will be the stepping stone to some other higher value or capital intensive activity.

Likewise, it is not clear whether existing businesses get pushed up the value chain, into other activities, or out of work entirely. But this is a concern with any employment intervention, capital-centric or skill-centric, and from existing research we have no direct evidence to suggest that capital has had such negative spillovers.

Programs often try to predict in what sectors will the growth be. But it is difficult to predict winners in this way, which could be one reason skills-centric programs so often fail to be cost-effective. Putting capital in the hands of the poor, on the other hand, lets them make that decision in a decentralized way, enabling their information about local demands for goods and services to guide investments.

This approach to improving people’s portfolios of work is different than the employment programs many governments say they want. Governments typically demand programs that create discrete jobs, not better portfolios. Our point, however, is that stimulating self employment on the margin is a tool that seems to work and could be applied more widely. It is an effective form of job creation and poverty reduction.

4.1.2 Shift the burden of proof onto skills training programs

What should be done with training programs? It is entirely possible that a better training program—one that gets the skills or the links to employers right, or provides capital—has

¹²¹We use a 5% social discount rate, as is commonly used by the World Bank and IMF.

higher returns than past training programs. A recent World Bank report, for instance, makes the case for new approaches to encouraging on-the-job training in firms and making skills training interventions more market relevant and demand-driven.¹²²

But any new training model will need to be more cost-effective than past ones. If improving training programs raises cost faster than quality, the situation will worsen. Even now, it is not unusual for relatively short skills training programs to cost \$1000 or \$2000 per person (or more). If we return to the hypothetical situation above, of a rural woman earning \$10 a week, a \$2000 training program would have to raise her earnings to \$30 a week to deliver benefits ten times as great as the cost. These kinds of earnings gains have simply never been observed in an experimental trial.

Simply put, donors should demand evidence before sending money to new training programs. If there is a good reason to think a new training model will work more effectively and efficiently, then the only reasonable answer is to subject it to a rigorous test, especially before taking it to scale.

Whether programs are capital- or skills-centric, however, donors and policymakers should keep in mind that there is no off-the-shelf program that will work in all contexts. Even if there are a few rules of thumb on how to improve self-employment, every context will be different. The constraints holding people back from employment, and the incentives for crime or violence, vary from place to place. Thus rapid, accurate diagnosis in each context is key.

4.2 How to design better programs?

Fragile states are tough places to plan and program. There are few data, arguably each fragile situation is unique, and often the situation is changing. The drivers of conflict, the constraints to prosperity, and what states and aid can do about it are largely unknown.

How can one plan and program in this environment? How can a large bureaucracy—be it a government or the World Bank or a large nonprofit—develop systems for learning and scaling what works in fragile, uncertain environments, and changing course as new info comes in?

As we discussed above, many programs do not take into consideration the binding constraints in the design of interventions. Mostly these are unknown. While there is increasingly strong evidence that capital is important, it is not true in every context. In Liberia, in the absence of property security, the gains were short-lived. Among farmers in Ghana, capital was not much help without insurance.

We suggest a few possible guidelines for policymakers.

¹²²See World Bank (2015b). Another World Bank report on employment in Africa, however, makes a similar case to our own: that the returns to skills interventions have been low, while investment in household enterprises seems quite promising (Filmer et al., 2014).

4.2.1 Clarify who the policy should target, and for what purpose

We have discussed employment programs that aim to relieve the worst forms of poverty, programs that aim to grow the most promising young entrepreneurs, and programs to deter violence. These goals imply reaching different target groups. The poorest and most vulnerable groups in a population are seldom the high-risk ones. Instead they may include those that are less likely to instigate or participate in violence, such as young girls or single-mothers, and families with high dependency ratios. Clarifying the target group is important in designing the program.

This will inform which types of constraints are most likely to be binding and so where diagnosis needs to be focused. Different interventions may be more or less appropriate for different target groups. Taking this into consideration can help shape the design of early pilots and ensure that the program becomes context-relevant. Often programs have far reaching or ill-defined goals that do not differentiate these objectives, which leads to results that show little improvement on either objective.

4.2.2 Help current and future diagnosis by developing panel data

We believe employment programs fail because they are based on faulty assumptions and diagnosis. One solution is more diagnostic analysis, for which we need data. In high- and middle-income countries, people's understanding of labor markets and employment programs was revolutionized by administrative data and panel surveys. They also enable program evaluation when experiments are not possible. All the NREG lessons are drawn from such data in India.¹²³

The systematic collection of data will help identify the binding constraints in the economy. In particular surveys of a panel or longitudinal nature can help the understanding of relationships between different factors of production, such as capital, skills, information, and reveal where there are immediate opportunities to address market failures and improve income generation. For example, they can show which groups have been able to start up and sustain small enterprises or access jobs in the formal sector, and what factors may have contributed to these outcomes. It can also help us understand violent and illicit activities. For example, above we discussed panel studies in the US that first demonstrated the portfolio nature of criminal and non-criminal work, and the fact that the portfolio mix responds to small changes in wages.

Even so, in some situations implementation may trump diagnostics. For example, if there is a dearth of information and the situation is particularly volatile, panel data may not be appropriate. It will not provide speedy answers and may become outdated quickly. Small-scale pilots that provide context-relevant information about the effectiveness of specific program can be far more useful. We turn to this next.

¹²³Many countries lack the systematic collection of labor force, or enterprise data, and some even have sparse household data. When data is collected it does not always have the coverage needed to understand the informal sector where many of the poorest are working. Furthermore, the lack of panel data, where the same people and households are covered over time, makes it difficult to identify how changes in education, skills or capital influence welfare, earnings and employment.

4.2.3 Implementation trumps diagnostics?

Some of the studies discussed in this paper—the large YOP program in northern Uganda, or the Job Corps study in the US—evaluated existing programs when they were already at scale. Other studies however—AoAV’s agricultural program for Liberian ex-combatants, the STYL program that offered behavioral therapy and cash to high risk Liberian men, or the WINGS program that targeted women in northern Uganda with cash—were small-scale interventions being piloted and tested to see what works, often turning different program components off and on.

Informal, small-scale piloting is routine in engineering and other private sector ventures. In social services, the analogy is testing different programs among small cohorts of recipients before they are taken to scale. It is a reasonable question: Why would anyone scale an unproven program to tens of thousands of people, when they could first test several designs with dozens or hundreds? The answer, it seems, is that this is hard to do in the current institutional structures that deliver development programs. But the answer should surely be “some small-scale trial and improvement should be done” rather than the status quo, which is almost zero.

Karl Popper likened this approach to something he called the piecemeal social engineer. Tinkering at small scale with many things. This is a form of experimentation. It need not involve randomized trials or rigorous research, although we have seen the benefits that such research brings.

Trial and error can also help when programs attempt to address multiple constraints simultaneously. While it is clear that relaxing one constraint alone will not be effective if multiple constraints bind, trying to address multiple constraints at once over a large target population is ambitious. Starting with a smaller population and testing out strategies to relieve different constraints in different combinations is an important approach. The STYL study in Liberia, that looked at cash alone, therapy alone, and the two in combination, is a good example of this.

A oft-stated concern is that this type of approach—piloting, and improving design, before taking to scale—can be particularly difficult in low-capacity environments, where local staff may have limited technical and operational experience levels and government institutional structures can change. We argue that in such environments experimenting and piloting may be even more useful. Not only are they valuable since there is a scarcity of data and a limited number of existing studies, but piloting through rolling out a program incrementally may provide a great opportunity to build operational capacity and technical knowledge. Furthermore, this approach can help mitigate unforeseen risks that may be specific to fragile states and provide beneficial flexibility to respond to unexpected circumstances.

4.2.4 Cross-country studies of promising models

Finally, some ideas have already been piloted. Two questions remain: (1) what components are cost-effective? and (2) do the programs work more generally and at scale?

Take the example of capital-centric programs. While we know that an expensive package of interventions increase earnings a great deal, we don't know how much is due to cash, training, mentoring, or some other component. Skills training and mentoring are time-intensive, tend to be expensive, and could reduce the cost-effectiveness of the program. We also don't know whether large-scale transfer programs have positive spillovers, by increasing demand, or negative ones, by crowding out other entrepreneurs.

Take another example: CBT and employment. It remains to be seen whether violence falls more, and more permanently, when combined with effective employment interventions. And it's not clear whether it works when gangs are competing for the same young men, or when a larger and larger proportion of a city's criminal population is treated.

These programs are so basic, ubiquitous, and potentially impactful that there are huge social returns to getting the answer right. One way to do this is a multi-country trial that tests the cost-effectiveness of components in different combinations.

Imagine testing three interventions: a cash grant of \$200, a skills training program (of business or simple vocational skills), and a third "X-factor" that relieves some other constraint on small enterprise growth (such as poor self-control, property rights protections, or social capital and mentorships, as many possible factors limit business growth in addition to scarce capital and credit). A study could offer the same eight treatment arms in four countries, to varied populations of the underemployed:

1. Grant
2. Grant + training
3. Grant + mentoring
4. Grant + training + "X-factor"
5. Training + "X-factor"
6. Training
7. "X-factor"
8. Control group

With 250 to 500 people per treatment arm in each country, this hypothetical program would serve 8,000 to 16,000 people across the four countries. In principle, \$10 to 15 million could pay for interventions and one year of data collection (depending on the countries and the cost of interventions).¹²⁴

The sums invested in programs without such evidence is simply staggering—nearly a billion dollars per year in training alone, via the World Bank alone. Yet what little evidence we

¹²⁴This figure is based on a \$200 cost per program component per person, a \$60 per person survey cost, a baseline and three endline surveys, and program and research design, management and analysis costs of about 40% of program and survey costs.

have questions whether most of these programs had positive effects on employment. We also have virtually no evidence on cash-for-work programs. And no one is sure how to make cash transfers more effective and sustainable. This is an incredible state of affairs that demands new priorities, new strategies, and new research.

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