

Economics 172
Issues in African Economic Development

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Issues in African Economic Development

Lecture 14 – March 1, 2007

Combined credit / insurance contracts

- Udry (1990) finds that informal credit deals are more sophisticated than bank transactions:

	<u>Monthly interest</u>	<u>Repayment period</u>
<i>Borrower:</i>		
<i>Negative shock</i>	<i>-4.0 percent</i>	<i>72 days</i>
<i>No shock</i>	<i>0.5 percent</i>	<i>67 days</i>
<i>Lender:</i>		
<i>Negative shock</i>	<i>2.6 percent</i>	<i>80 days</i>
<i>No shock</i>	<i>-7.5 percent</i>	<i>89 days</i>

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 - (3) With poor information about borrower circumstances, they cannot offer flexible credit / insurance contracts

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 - (3) With poor information about borrower circumstances, they cannot offer flexible credit / insurance contracts
 - (4) They cannot call upon local enforcement mechanisms or social sanctions for repayment – and formal legal channels (courts) may be slow and unreliable

Why are rural financial institutions absent?

- Consider another setting, rural western Tanzania – Meatu District
- Poor, isolated semi-arid district with low per capita income – even by Tanzanian standards (<US\$250 / year) – and frequent droughts



Why are rural financial institutions absent?

- Consider another setting, rural western Tanzania – Meatu District
- Poor, isolated semi-arid district with low per capita income – even by Tanzanian standards (<US\$250 / year) – and frequent droughts
- Main crops include sorghum, millet, sweet potato, maize (corn) and cotton (the local cash crop)
- Field work during 2001-2002 and collected surveys in 67 villages and over 1300 households



One form of saving: grain storage

- One important way to save from one year to the next is to store grain (e.g., maize, sorghum)
- It is most efficient to store grain centrally, to exploit economies of scale in fumigating the storage facility to kill pests, weevils, rats

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- It is most efficient to store grain centrally, to exploit economies of scale in fumigating the storage facility to kill pests, weevils, rats
- But there are no central grain storage facilities in Meatu – why not?

The history of grain storage in Meatu, TZ

- In the 1970s during the socialist *Ujamaa* period, the government set up several grain stores in Meatu. Several of these structures are still around in the district capital (Mwanhuzi)
- But people told me that these grains were later stolen by government officials → there is little trust in grain stores

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- But people told me that these grains were later stolen by government officials → there is little trust in grain stores
- To set up a successful / profitable grain store, one needs to purchase the fumigation technology (which has an upfront fixed cost), and also generate enough trust for people to leave their grain with you

An NGO grain storage project

- In 2004 an NGO (ICS Africa) established a grain storage facility in one village
- Over the course of that harvest season and the following, the number of households leaving their grain in the grain store (where it was fumigated, maintained free of rats, etc.) grew gradually

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- Over the course of that harvest season and the following, the number of households leaving their grain in the grain store (where it was fumigated, maintained free of rats, etc.) grew gradually
- In 2006 the number of households saving grain had increased dramatically, and the NGO began setting up additional grain stores
- Why did the NGO succeed where others had failed?

Witchcraft, poverty and violence in Meatu

- Witches harness occult powers to harm others
 - Powers over health, weather, crops
 - Individuals to attribute misfortune to human malice
- Witchcraft beliefs strong among Sukuma in Tanzania
 - 64 percent follow traditional religions

Witchcraft, poverty and violence in Meatu

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- Witchcraft beliefs strong among Sukuma in Tanzania
 - 64 percent follow traditional religions
- Government figures indicate there were over 3,000 witch murders from 1970 to 1988 in the region
 - In our 67 Meatu villages over 11 years, 65 witch murders and 73 witch attacks

Who are “witches” in Tanzania?

- Witches are poor, elderly women (50-70 years old)
 - Murdered by relatives or kin
- Account from neighboring district (Mesaki 1994):

“I ran away from Rusule in Shinyanga District after being suspected of being a witch. ... There were many deaths in the family ... then rumour began to spread in the village that I was the one who killed them ... [M]y own children started to hate me, ... some of them started taunting me as a witch. I tried to explain but they did not give me the chance to vindicate myself. I knew what would befall me in view of what had happened to others previously, for they were brutally killed. Thus, when ... one of the grandchildren whispered to me that they were about to kill me, I left the same evening. ... I have lived in this camp for three years now, and though I love my family, there is no way of going back to face certain death.”

Who are “witches” in Tanzania?

- 96 percent are female, average age 58 years (Table 2)
- Victims come from relatively poor households in terms of assets and livestock ownership
- Most victims are killed during the pre-harvest “hungry” season of the year (mainly April to July)

Perspectives from anthropology

- Many pre-industrial societies resorted to the murder of the elderly or infants during periods of extreme resource shortage
 - Over one-third of surveyed societies engaged in such “death-hastening practices” (Simmons 1945, Shalinsky and Glascock 1988)
- E.g., “Where resources were ... meager, as with the Amassalik Inuit, the decrepit elderly, when perceived as a community burden ... were abandoned on an ice floe when the tribe was out fishing” (Brogden 2000)

A model of within-HH resource allocation

- Imagine there are N household members, $i=1, 2, \dots, N$
- Biologically all people need to consume at least C^* to survive (think of a minimal caloric requirement)

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 \rightarrow Equal division of income means everyone starves
- Unequal division, with resources directed to the most productive household members (Y_i high) is a option

Main patterns in the data from Meatu

- Data (some retrospective) for 1992-2002
- Years with extreme rainfall shocks (e.g., droughts, flooding) lead to sharp drops in household consumption and often to famine. Recall the major difficulties households have with saving in this district!

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- Data (some retrospective) for 1992-2002
- Years with extreme rainfall shocks (e.g., droughts, flooding) lead to sharp drops in household consumption and often to famine. Recall the major difficulties households have with saving in this district!
- There are large increases in witch murders and attacks in these years with extreme rainfall (Table 4), but no impact on non-witch murders (Table 6)
- Villages with more adherents of traditional religions also have more witch murders in extreme rainfall years

Lessons from witch killings in Tanzania

- Income shocks lead to violence against elderly women “witches” in rural Tanzania
 - Within-household resource conflicts may lie at the heart of this violence
- The lack of savings options, credit, and insurance are probably key to explaining the huge consumption fluctuations experienced by households in Meatu

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- What are some possible solutions?

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- The lack of savings options, credit, and insurance are probably key to explaining the huge consumption fluctuations experienced by households in Meatu
- What are some possible solutions?
 - Formal insurance against weather shocks? Could use FEWS satellite data
 - Old age pensions for women?

- For next time: Week 7 readings on education

Whiteboard #1

Whiteboard #2

Whiteboard #3

Whiteboard #4

Whiteboard #5



