

IAMO-International China Research Group



IAMO INTERNATIONAL RESEARCH GROUP

„Economic Dynamics and Social Developments in Rural China“

CGCIA workshop, ZALF, Jan. 12 2011

IAMO-International China Research Group



Members

IAMO Researchers



Stephan
Brosig



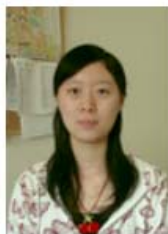
Bente Castro
Campos



Jens Frayer



Thomas
Glauben



Lili Jia



Karin Larsen



Daniel Müller



Martin Petrick



Tursinbek
Sultan



Zhanli Sun



Yanjie Zhang

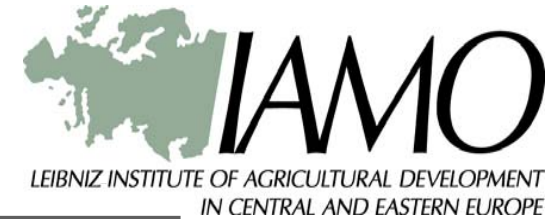


Qiran Zhao

International partner institutions

- Center for Chinese Agricultural Policy, CCAP, China (Prof. Jikun Huang)
- Center for Agricultural and Rural Development, CARD, China (Prof. Zuhui Huang)
- Stanford University, USA (Prof. Scott Rozelle)
- Ohio State University, USA (Prof. Belton Fleischer)
- Licos Center for Transition Economics, Belgium (Prof. Johann Swinnen)
- FERDI, Clermont-Ferrand, France, Kelly Labar)

IAMO-international China Research Group



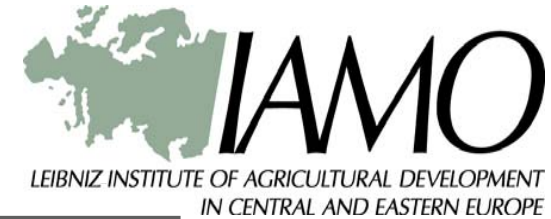
Funding: Pakt 2008-2011 (650,000€), cont. at lower level, additional proposals ongoing

Three topical groups:

- GROUP A: Socio-ecological and farm organizational dynamics
- GROUP B: Poverty and income distribution
- GROUP C: Employment and Land Rights

Presently: Eight separate projects

IAMO-international China Research Group



Food supply chain
development in China: role
played by small farmers and
farm cooperatives



Tursinbek Sultan, Karin Larsen

Background

- Cooperation among small farmers can enhance their success and competitiveness

Research question

- What are the determinants, obstacles and benefits of cooperation among farmers?

IAMO-international China Research Group



Food supply chain
development in China: role
played by small farmers and
farm cooperatives



Tursinbek Sultan, Karin Larsen

Data

- **July – October 2009: Sichuan, Zhejiang**
- **Information on farm/household characteristics and experiences with / attitudes towards cooperatives**
- **600 small farmers, village leaders, 31 cooperatives fruit, vegetable, livestock producers**

Methods

- **Assess impact of determinants with econometric tools and ABM**

IAMO-international China Research Group



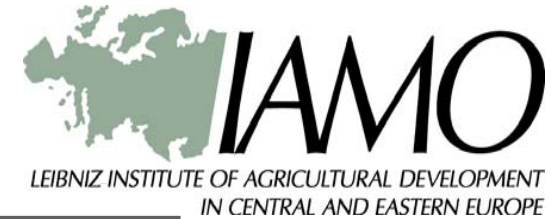
Modeling effects of the *Sloping Land Conversion Program (SLCP)* on human well-being and land use in upland Yunnan



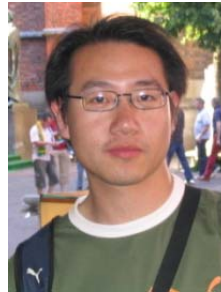
Zhanli Sun, Jens Frayer, Daniel Müller

Separate presentation in the following session

IAMO-international China Research Group



Land Reallocation and Its Impacts on Technical Efficiency



Yanjie Zhang, Xiaobing Wang, Thomas Glauben

Background

- + Reallocation may help to achieve efficient land distribution
- - Insecure land tenure may pose a disincentive to investment in soil quality and in agricultural production in general.

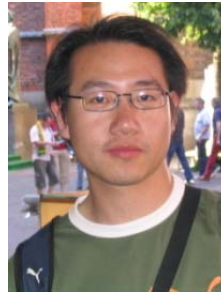
Research questions

- What are the determinants of land allocation?
- Does land allocation affect productivity?

IAMO-international China Research Group



Land Reallocation and Its Impacts on Technical Efficiency



Yanjie Zhang, Xiaobing Wang, Thomas Glauben

Data

- Representative household survey 1995-2002 (Research Institute of the Rural Economy, RCRE, Beijing)
- Zhejiang, Hubei, Yunnan

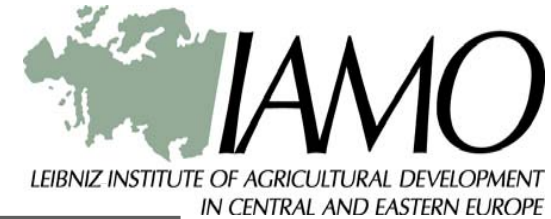
Methods

- Reallocation variable: year-on-year change of arable land
- Fixed effect model, Stochastic Frontier Analysis (SFA)

Results:

Zhejiang: negative effect; Hubei, Yunnan: positive effect

IAMO-international China Research Group



Ethnic Minorities and Rural Employment in Southern China



Bente Castro-Campos, Martin Petrick

Background

- Occupational change from agriculture to non-farm activities is less pronounced for ethnic minorities than for Han population
- Ethnic groups often remain among the poorest in southern- and western China in spite of many preferential policies

Research question

- Can ethnic minorities participate in the change of sectoral structure of the economy?

Data

- CHNS (China Health and Nutrition Survey), Guangxi, Guizhou

Ethnic Minorities and Rural Employment in Southern China



Bente Castro-Campos, Martin Petrick

Methodology: Discrete Choice Models

Illustrative example:
Multinomial Logit

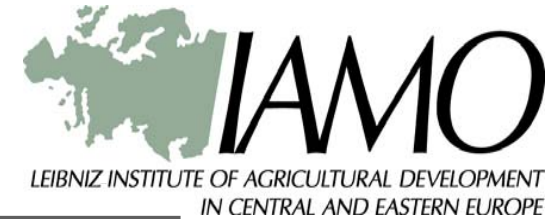
Problem:
Dependence on irrelevant alternatives

better: Nested Logit models, Multinomial Probit

	Agriculture	Blue collar	Service	White collar	Professional
Miao (0/1)	0.163***	-0.097***	-0.068***	-0.015*	0.016
Zhuang (0/1)	-0.027	0.060	-0.035**	0.009	-0.007***
Bouyei (0/1)	0.172**	-0.046	-0.106***	-0.025**	0.005
Tujia (0/1)	0.051	-0.011	-0.044	-0.008	0.012
Others (0/1)	0.050	0.005	-0.043*	-0.009	-0.003*
Male (0/1)	-0.033	0.065***	-0.038***	-0.000	0.005*
Education (years in school)	-0.039***	0.009**	0.013***	0.013***	0.004***
Age (years)	0.002	-0.003***	0.001	0.000	0.001**
Marital Status (0/1)	-0.005	0.009	-0.009	0.001	0.004*

Standard errors *** p<0.01, ** p<0.05, * p<0.1. Observations 5.973. Log likelihood of MNL model: -5022.7032, Pseudo R2= 0.1852. Marginal effects for dummy variables are for discrete change from 0 to 1. Standard errors are robust to clustering. 5 community dummies and 4 time dummies not included here.

IAMO-international China Research Group



**Land fragmentation,
agricultural labour
productivity, and off-farm
labour supply**



Lili Jia



Martin Petrick

Background

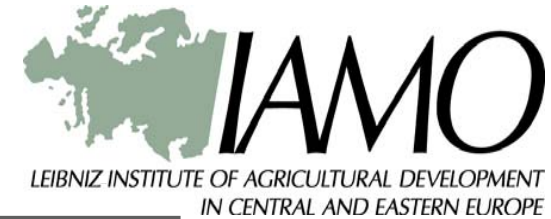
- Land is highly fragmented

1995-2002	Arable land [mu]	No of plots
Zhejiang	1.6	4.4
Hubei	4.8	6.8
Yunnan	6.0	8.2

Research question

- Impact of fragmentation / land consolidation on off-farm labour supply

IAMO-international China Research Group



**Land fragmentation,
agricultural labour
productivity, and off-farm
labour supply**



Lili Jia



Martin Petrick

Approach

- Estimation of production function with number of plots as proxy for land fragmentation

Data

- RCRE rural household survey data, 1995-2002

Preliminary result

- Effect of fragmentation on output:
sign. positive for Zhejiang, sign negative for Yunnan

IAMO-international China Research Group



What are the different
faces of poverty in
income, education and
health in China?



Bente Castro-Campos Kelly Labar Martin Petrick

Discrete choice and hazard models
China Health and Nutrition Survey

IAMO-international China Research Group

How does nutrition
affect students'
success at school in
rural China?



Qiran Zhao



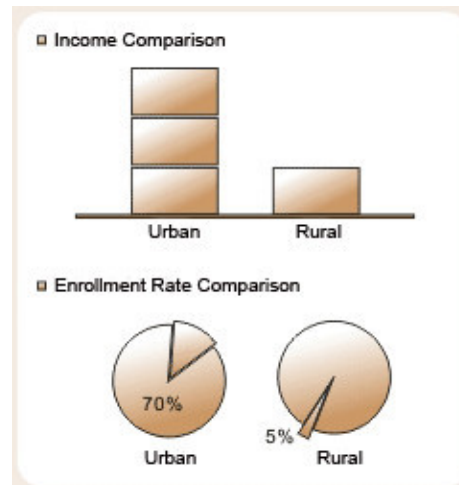
Kelly Labar



Stephan Brosig

Background

The education gap:



Research question:

How can school success in rural China be improved by nutritional programs?

IAMO-international China Research Group



How does nutrition
affect students'
success at school in
rural China?



Qiran Zhao



Kelly Labar



Stephan Brosig

Approach:

Randomized Control Trials in numerous sub projects of
the *Rural Education Action Project*



Current state:

Beginning of PhD project on anemia reduction through nutritional
supplements, nutritional training and incentive programs

IAMO-international China Research Group



Chinese farm households' responses to changes in economic environment



Stephan Brosig Thomas Glauben

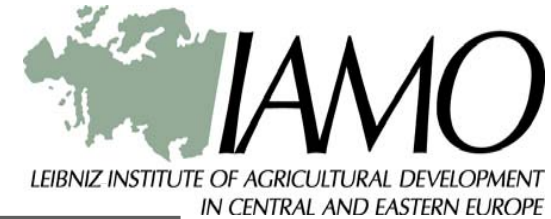
Background

- Changes in prices, wages, technology, and market access affect farm households' supply and demand behaviour on product and factor markets.
- Imperfect labour markets

Research objective

- Specify and estimate a behavioural model accounting for simultaneity of decision making in production and consumption spheres

IAMO-international China Research Group



**Chinese farm households'
responses to changes in
economic environment**



Stephan Brosig Thomas Glauben

Methodology

- **Interdependent (nonseparable) household model (with endogeneous determination of the price of labour)**

Data

- **RCRE Fixed Site Rural Household Survey data, Zhejiang, Hubei, Yunnan, 1995-2006**

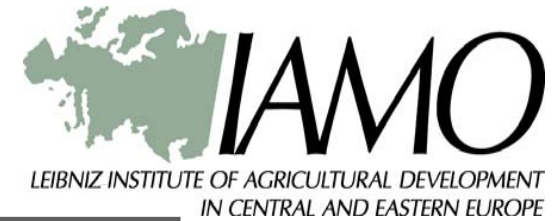
IAMO-international China Research Group



Goals of the IRG:

- Participating in research on the Chinese growing economy using rigorous and current methodological tools
- Disseminating our findings in attending conferences and publishing in peer journals
- Sharing expertise in various fields of research in bringing together the knowledge from international partners.

IAMO-international China Research Group



**Contacts and information on
www.iamo.de/china-group/home.html**

Land fragmentation, agricultural labour productivity, and off-farm labour supply



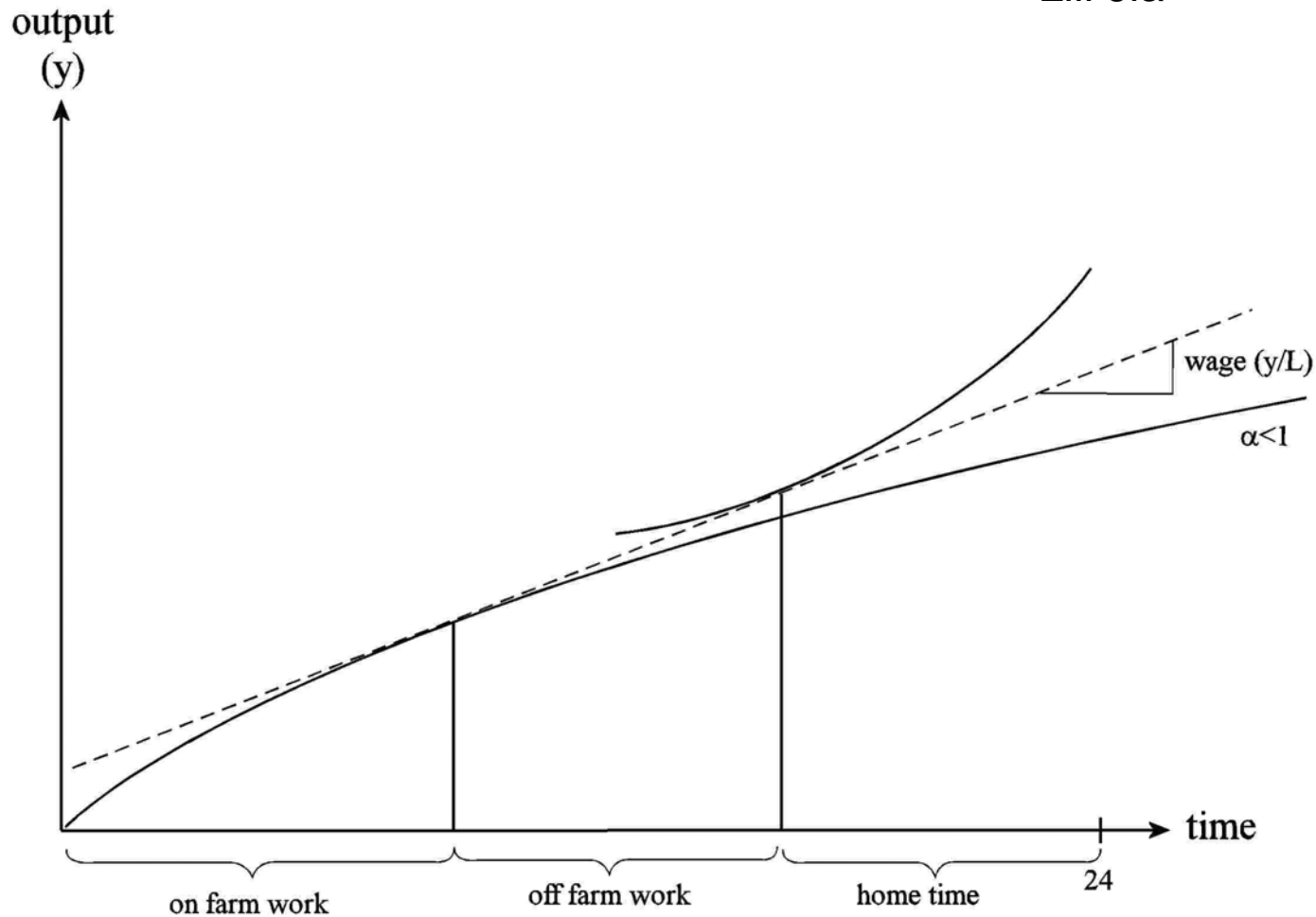
Lili Jia



Martin Petrick



Methodology



Separable
Household
model

Land fragmentation, agricultural labour productivity, and off-farm labour supply



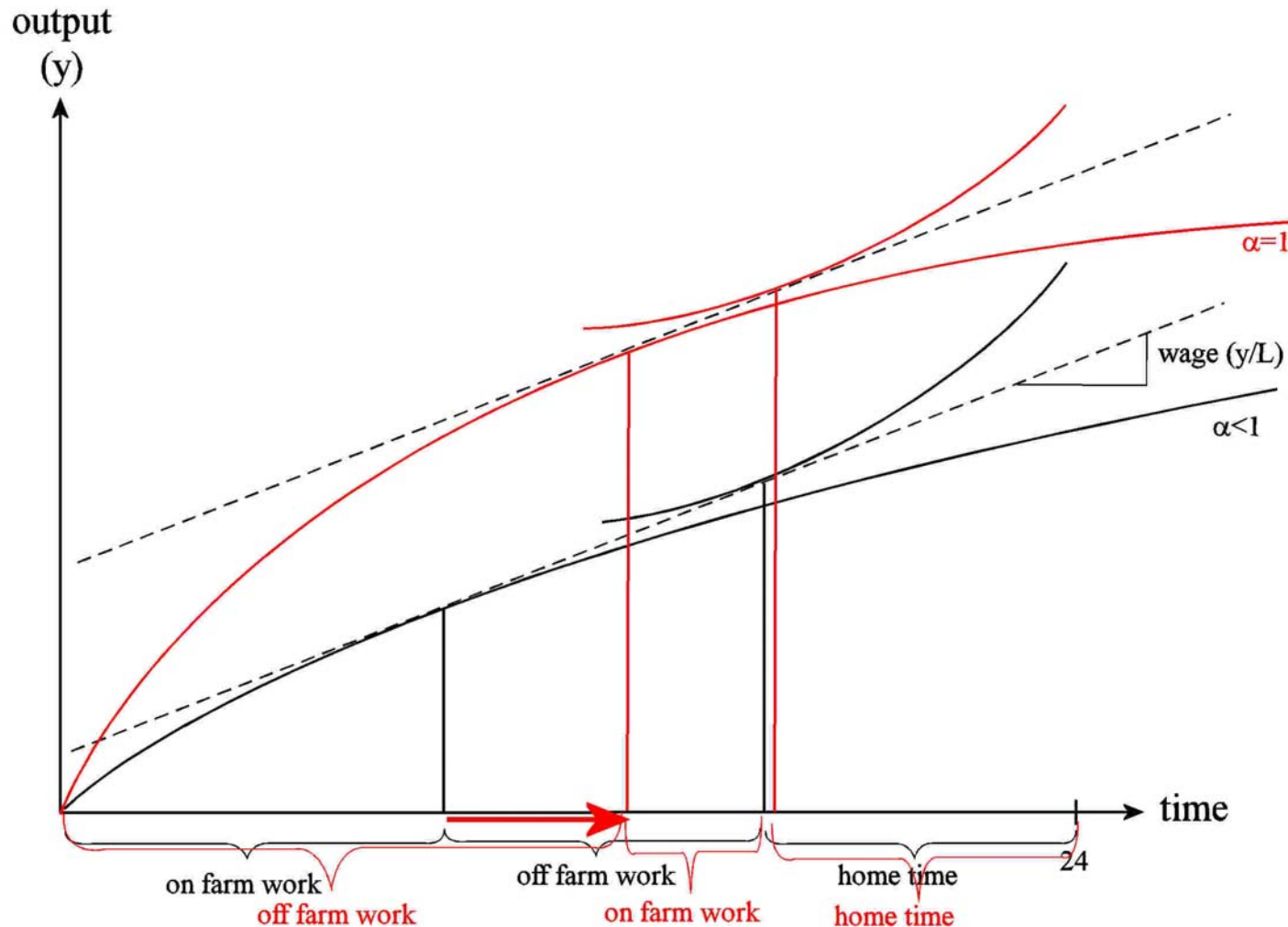
Lili Jia



Martin Petrick



Methodology



consolidation parameter α

Land fragmentation, agricultural labour productivity, and off-farm labour supply



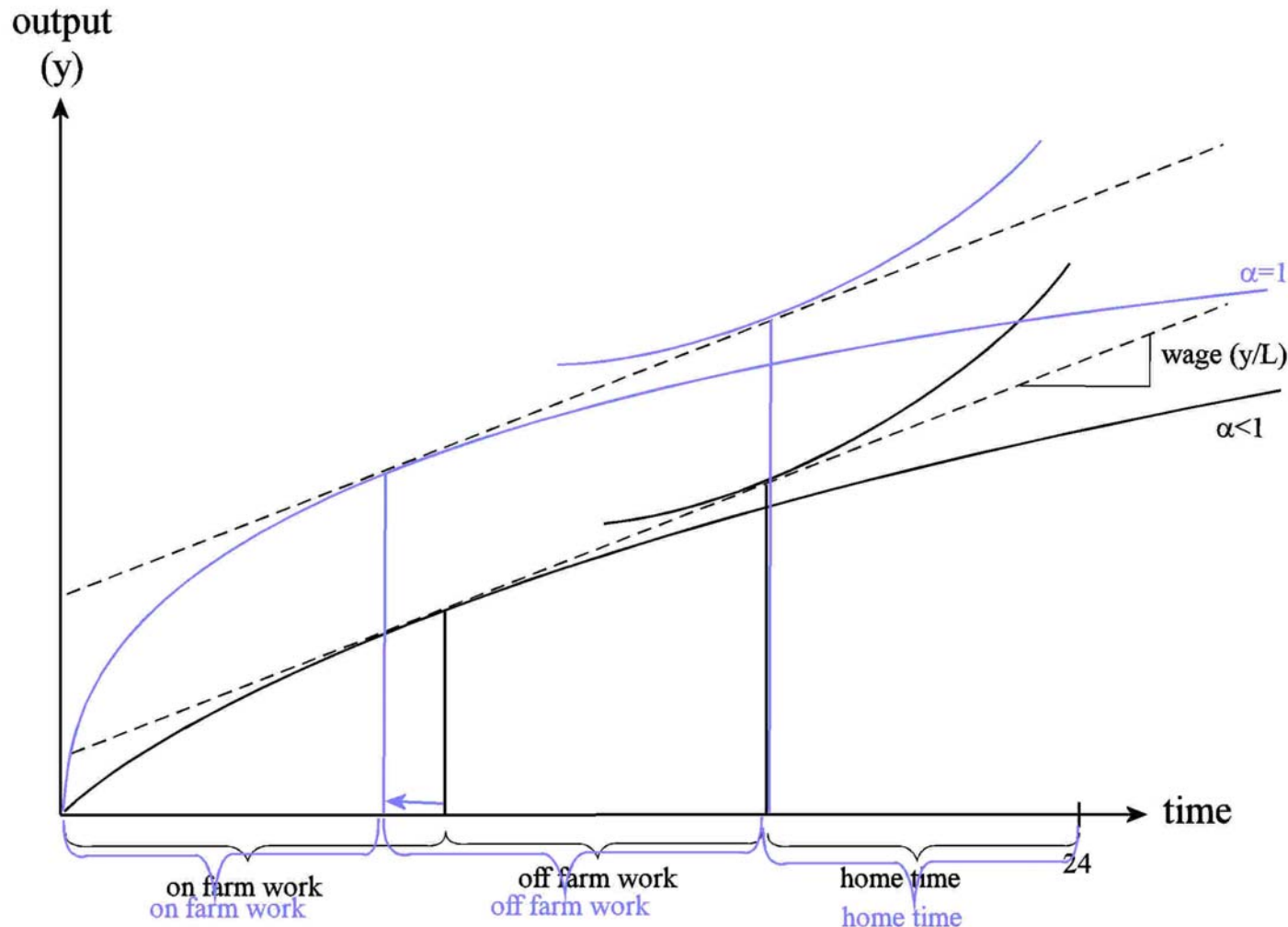
Lili Jia



Martin Petrick



Methodology



consolidation parameter α