



Migration and Development: Implications for Rural Areas

Alan de Brauw

International Food Policy Research Institute

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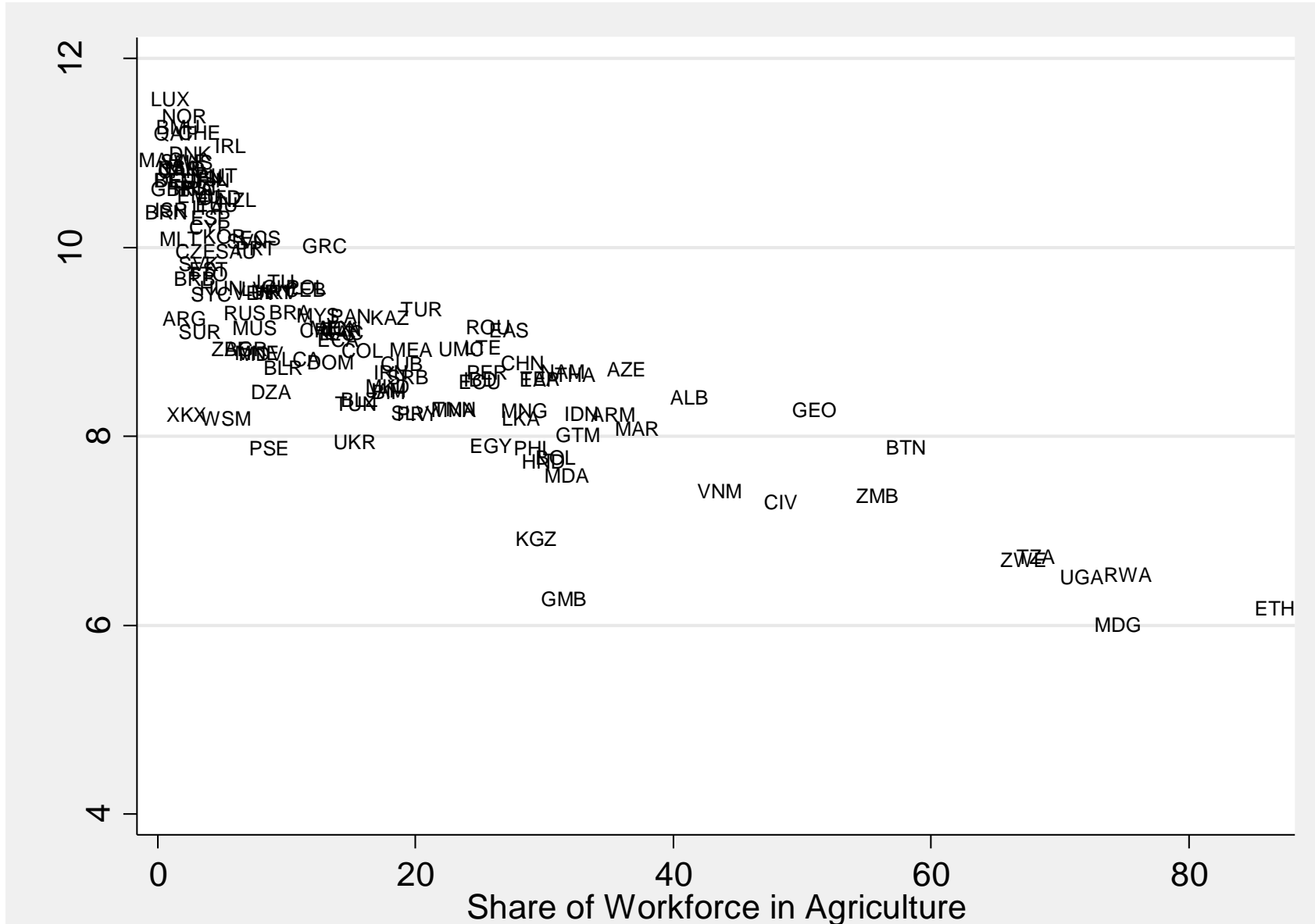


Motivation: Voluntary Migration plays Central Role in Development

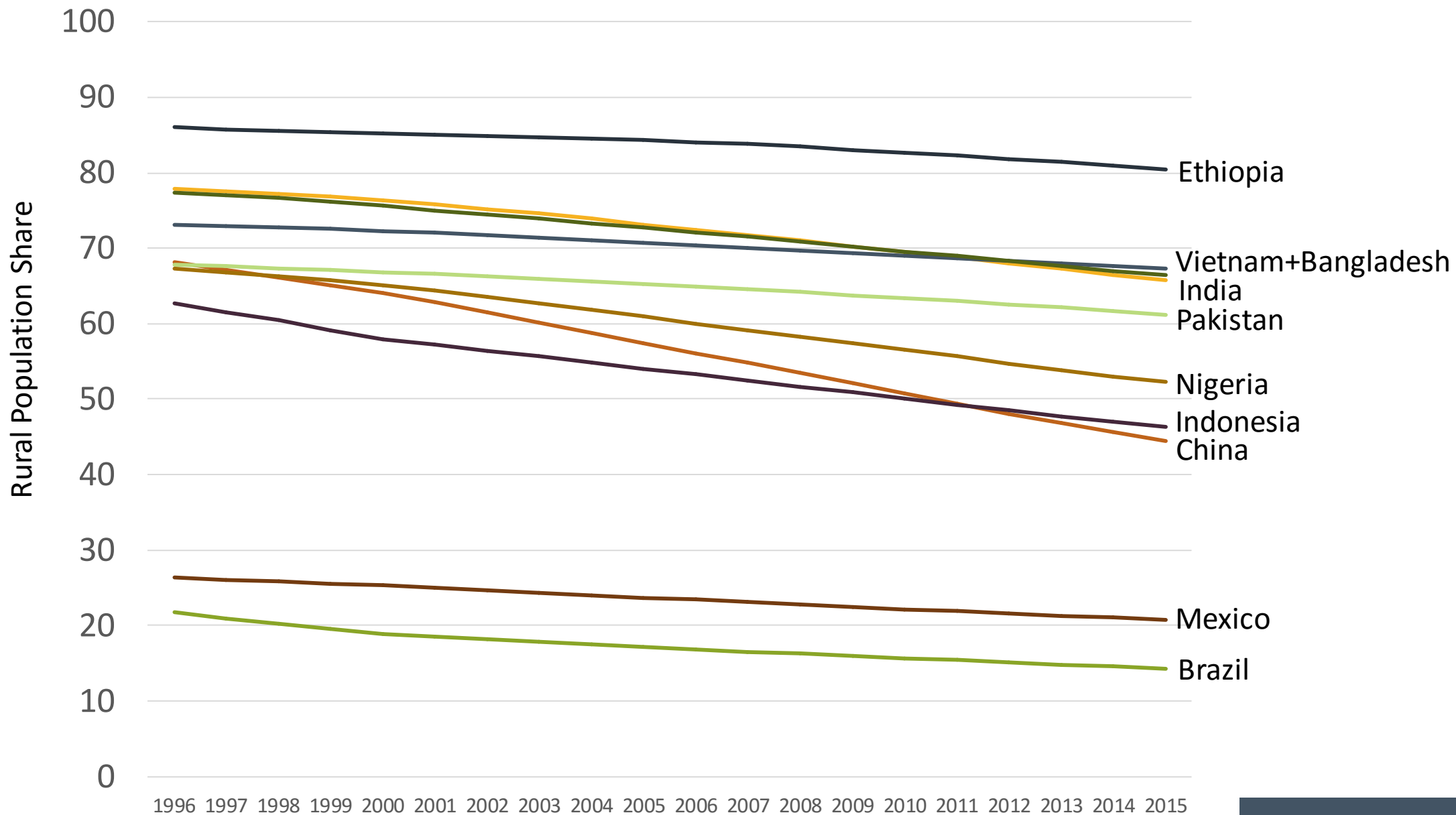
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 - Migrants may go to either urban or rural areas



Illustration: GDP and Share of Labor in Agriculture



Rural Population Share, 1996-2015





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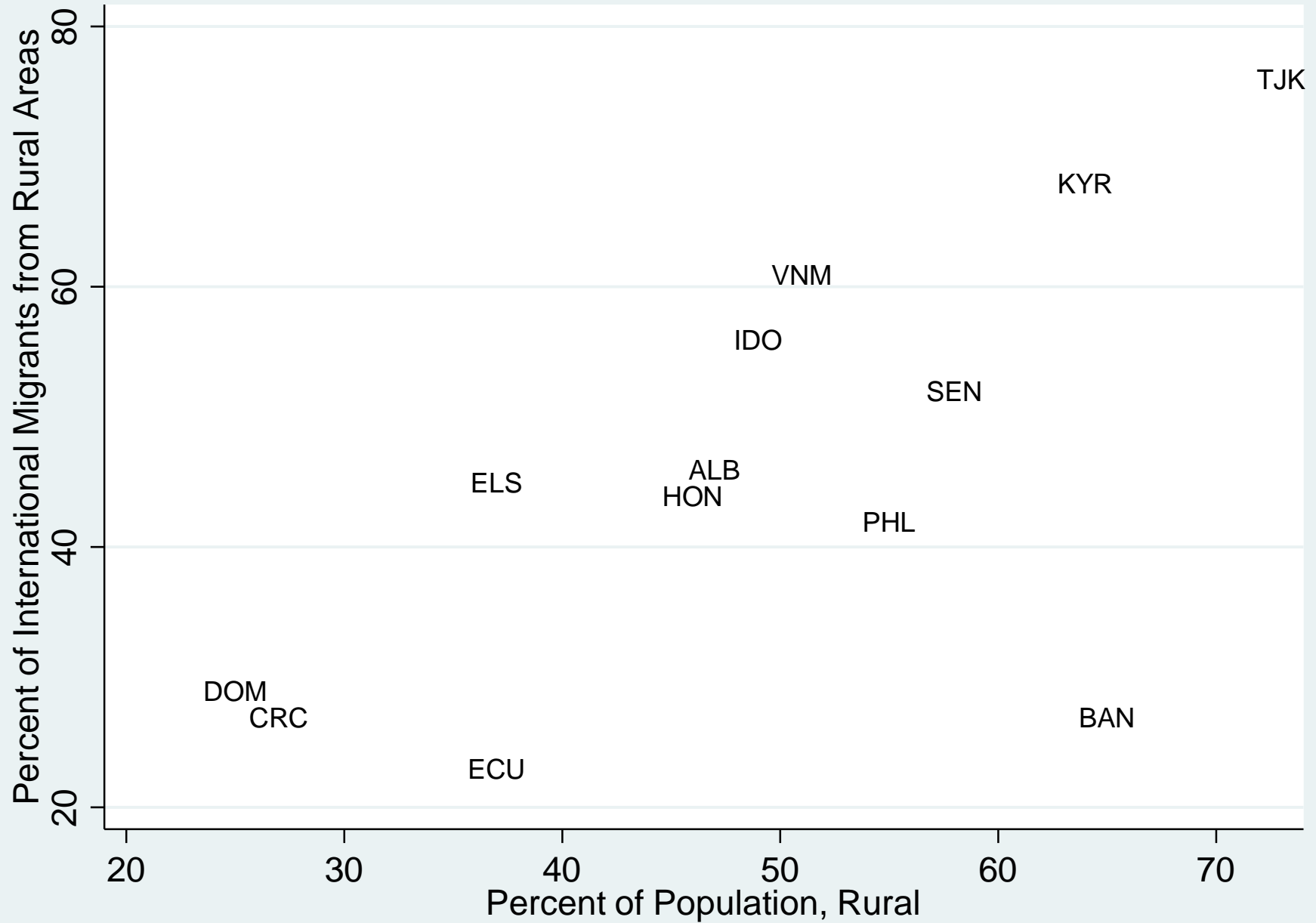
- Countries with Higher GDP have lower share of labor in agriculture
 - Migrants may go to either urban or rural areas
- International Migration more complicated (from rural perspective), but...
 - Many small countries rely on remittances for a substantial share of GDP
 - Migration quite important to some large economies (Bangladesh, Pakistan, Philippines, Mexico)
 - International migrant origin often from rural areas

Remittances as a Share of GDP

Country	Population Est.	Rural Share of Population	Remittances /GDP
Nepal	28.5 m	81.4	31.7
Liberia	4.5 m	50.3	31.2
Tajikistan	8.5 m	73.2	28.8
Kyrgyz Republic	5.9 m	64.3	25.7
Haiti	10.7 m	41.4	25.0
El Salvador	6.1 m	33.3	16.6
Senegal	15.1 m	56.3	11.9
Albania	2.9 m	42.6	9.2
Bangladesh	161 m	65.7	7.9
Morocco	34.3 m	39.8	6.9



International Migration from Rural Areas





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- But what are the effects of increasing migration on rural economies?



Outline of Talk

- The Rural-Urban Labor Productivity Gap
 - Is it due to migrant selectivity or due to costs or restrictions against migration?
- How should migration affect rural economies?
 - Conceptual framework – how to think about potential effects of migration on rural households
- Describe some evidence related to effects of migration on:
 - Agricultural Production;
 - Investments;
 - Risk Coping
- Conclusions related to policy



Evidence: Ag-Non Ag Productivity Gaps

- Gollin, Lagakos and Waugh (QJE; 2014) show large gap between ag and non-ag output, even accounting for hours worked and human capital
 - Agnostic about how gap occurs- whether through selectivity or through migration restrictions
- Young (QJE; 2013) argues this gap can fully be explained by selectivity
- Similarly, Hicks et al. (2017) argue that selectivity can explain gap through individual level panel data
- On other hand, Bryan and Morten (2017) show that in Indonesia migration “costs” play important role in explaining the wage gap



Conceptual Framework: Household Perspective

- How can migration potentially affect agriculture or non-farm rural activities?
 - If a migrant is sent out, they lose labor on the farm,
 - But migrant may send back remittances (which can be invested on or off farm, or can add directly to consumption)
 - Further, agricultural production is uncertain, so migration plays a role in diversifying that production risk



Theory: Implications

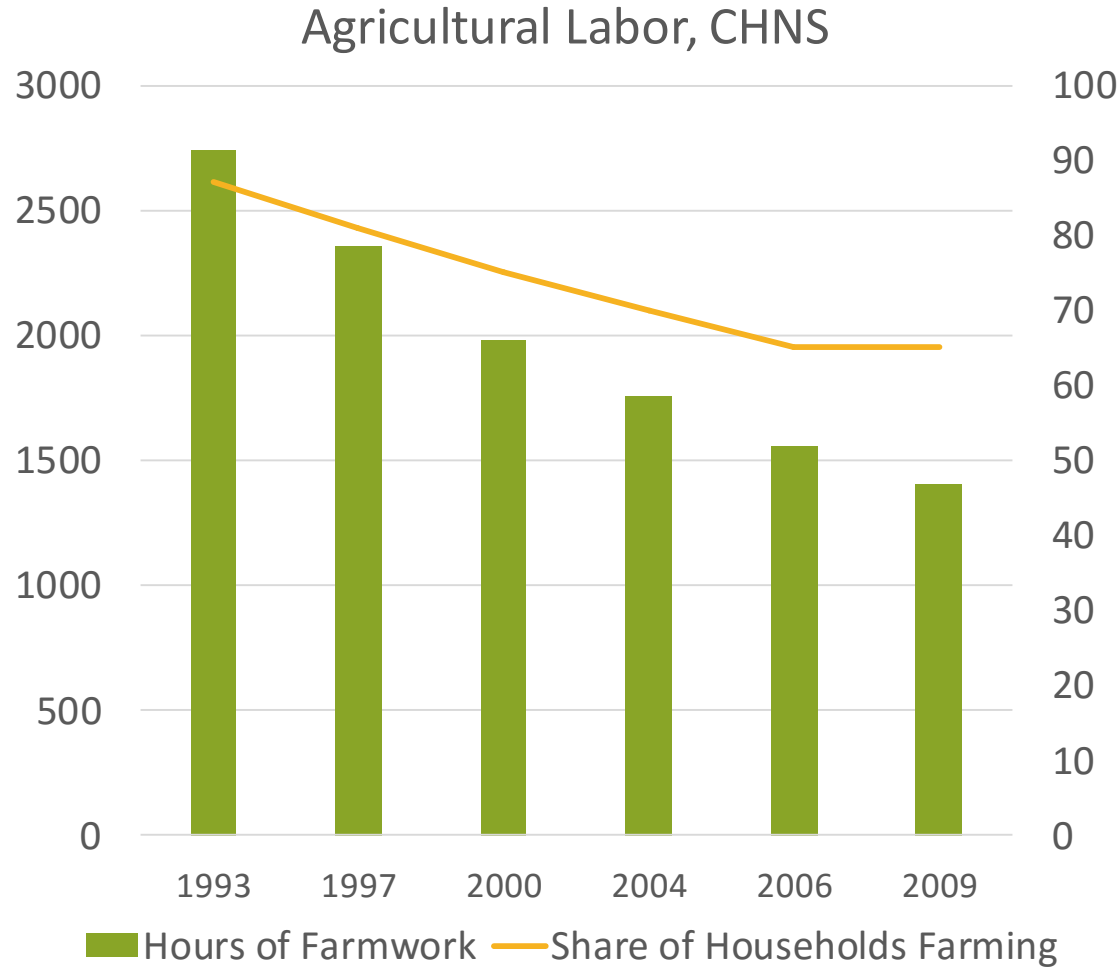
1. If choose to send out a migrant (or migrants), could be a lost labor effect on ag production
 - But several adjustments that can be made to reduce impact of lost labor (change composition of family labor force, hired labor, capital)
2. Migration could lead to investments
 - Could be productive (e.g. farm, non-farm investment)
 - Could also be in durables (which really lead to a stream of consumption)
 - Longer term– human capital investments
3. Could affect the way households deal with risk



Evidence: Agricultural Productivity

- Any evidence of lost labor effects in agriculture?
 - In general, challenging problem due to endogeneity of migration so little convincing evidence in the literature
- But lots of papers from China...
- Outside China:
 - De Brauw (2010) shows suggestive evidence of a shift from labor-intensive to land-intensive crops in northern Vietnam
 - Quisumbing and McNiven (2010) find a null result in the Philippines in a small panel

Evidence from China: Agriculture



- Meanwhile, plot level productivity in grains from China National Rural Survey, 2000 and 2008 (includes HH level fixed effects)

	All counties	Poor counties only
Time Dummy (2008=1)	0.253*** (0.058)	0.304*** (0.076)
Number of Obs	4821	3298

Adapted from de Brauw et al. (2012)



Evidence: Investments (through Remittances)

- Back to the model: Investments in *production* can occur, but are inherently risky (agriculture)
 - Less risky are investments in consumer durables and housing (especially if migrant is planning a return)
- Another investment more complicated- schooling
 - Could be a credit constraint to investment in schooling- higher income -> more schooling
 - Also an opportunity cost for higher levels of schooling (if work opportunity exists, so more migration -> *less* schooling)
- Statistical identification is a major issue in this literature



Mixed Evidence on Investments in Production

- Woodruff and Zenteno (2007) find long term migrant networks lead to higher investment in microenterprises in Mexico
- Yang (2008) uses exchange rate shocks to find impact on self-employment and entry into new types of entrepreneurship in Philippines
- On the other hand,
 - Gibson et al. (2011) show negative effects on agriculture, livestock in short term from emigration to NZ from Tonga
 - De Brauw and Giles (2018) find positive impacts on productive investment among relatively well off in China, but not among the poor (who migrate)

Evidence: *Casas de remesas*

- Potentially “safer” investment: housing
 - Osili (2004) shows positive evidence in matched US Nigeria survey
 - De Brauw and Giles (forth.) show stronger housing investment among poor migrant HHs in China
 - Erval (2012)- qualitative research on Pakistani migrants in Norway



Source: *BBC Mundo*



Evidence: Investment in Schooling

Positive Impacts

- Yang (2008) finds increase in educational expenditures, girls enrollment w exchange rate shock
- Theoharides (2017) also finds migration demand increases sec school enrollment by 3.5% (also Philippines)
- Dinkelman and Mariotti (2016) find higher schooling levels in Malawi where access to mines was easiest relative to poor access areas

Negative/Neutral Impacts

- McKenzie and Rapoport (2011) find reduction in enrollment among boys in Mexico
- De Brauw and Giles (2017) find reduction in HS enrollment in China
- Gibson, McKenzie and Stillman (2011) find non-result in Tonga among children left behind

Evidence: Investment in Young Child Nutrition

- Nutritional status among young children has been linked to positive outcomes (including wages) later in life (Hoddinott et al., 2008; Gertler et al., 2014)
- Could be improved outcomes from migration through:
 - increased income
 - more decision making power among women, but
 - Decreased time to care for children (negative)
- Mu and de Brauw (2015) show positive impacts on child weights in rural China
- Carletto, Covarrubias, and Maluccio (2011) also find positive impacts on height in Guatemala (US migration)
- Gibson, McKenzie and Stillman (2011b) find opposite in Tonga





Evidence: Migration and Risk

- “Old” idea: Migration advantageous to rural households because covariance of incomes lower than for local off-farm labor (e.g. Rosenzweig and Stark, 1989)
- Poor potential migrants may not leave due to risk at destination (e.g. Bryan, Chowdhury and Mobarak, 2014)
- Yet can be a more complicated relationship



Evidence: Migration and Risk (cont.)

- Risk-sharing relationships provide imperfect insurance in many contexts (e.g. Udry, 1994)
- Morten (2017) studies how seasonal migration affects risk-sharing in source community in India
 - Idea- with more migration, due to covariate risk households might have less need for insurance
 - Finds evidence consistent with this idea- migration substitutes for local insurance mechanisms
- Policy implications suggest workfare (MNREGA) has a lower welfare gain in the presence of both informal insurance and temporary migration



Summary: Evidence on Rural Impacts of Migration

1. Rural-urban migration a feature of the development process
 - Robust debate over how large the non-ag. “premium” is for labor
 - 1. No evidence that migration has negative impacts on agricultural production
2. Impacts on investments are *context specific*
 - Durables a secure investment, so positive impacts in several places
 - Productive investments risky but some clear impacts on entrepreneurship
 - Human capital investments are mixed
3. Migration has complex interacts with risk profiles of households and communities



Summary: Policy Implications

- Policies to *hinder* migration may also hinder increases in returns to labor on average
 - Even if migration largely according to Hicks et al. (2017), movement of labor out of agriculture is at worst neutral for labor returns
 - Policies should at worst *embrace* migration- realizing that there is a rationale for it even in a *revealed preference* sense
- Other policies may foster rural investment in either housing or productive investments
 - For example easing international remittances- lots of interest in this idea (e.g. IFAD's FFR)



Summary: Policy Implications (cont.)

- Policies seemingly unrelated to migration may have important interactions with migration
 - MNREGA or similar policies (e.g. PSNP in Ethiopia) may not have same welfare enhancement in high (temporary) migration areas
 - Policies that change expected returns or variance of returns to agriculture may also have interactions with migration
 - Land tenure reform an example
 - Basic income grant is “hot”, but how would it influence migration?