

Trade, informality and employment in a low-income country: The case of Vietnam

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Trade and growth

- There is mounting evidence of firm and industry level responses to trade that are consistent with growth:
 - Technology upgrading (Bustos, 2011)
 - Product quality upgrading (Verhoogen, 2008, Atkin, Khandelwal, Osman, 2017)
 - Input and output varieties (Goldberg et al., 2010)
 - Increases in industry or firm productivity:
 - Chile: Pavcnik (2002)
 - Colombia: Fernandes (2007)
 - Indonesia: Amiti and Konings (2007)
 - India: Topalova and Khandelwal (2011)
- Most evidence comes from formal firms

Trade and inequality

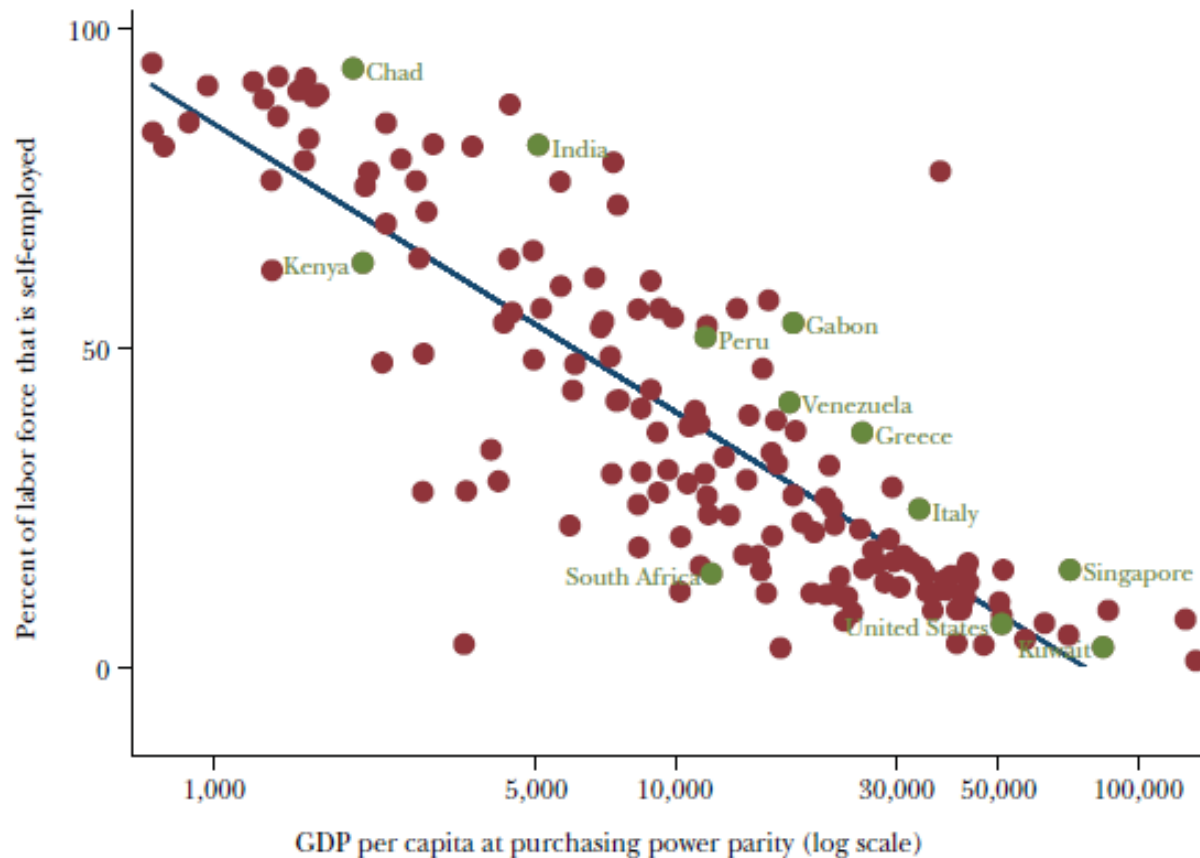
- However, trade has uneven impacts within countries and adjustment can be long
- The effects of trade on earnings tend to be regionally concentrated (i.e., local labour markets)
 - India's trade liberalization in the early 1990s widened regional inequality (Topalova, 2010)
 - See also evidence from Brazil (Kovak, 2013, Dix-Carneiro and Kovak, 2017), Vietnam (McCaig, 2011), China (Erten and Leight, 2017)
- Observationally similar workers can experience very different wage effects of trade:
 - Indonesia's trade liberalization increased the wage gap between workers in exporting firms and firms that only sell domestically (Amiti and Davis, 2012)
 - Exporting can increase the wage gap between skilled and unskilled workers in a firm (Bustos, 2011, Brambilla, Lederman, and Porto, 2012)
- Most of our empirical evidence is based on workers in formal firms
 - Exceptions include studies based on local labor markets as well as Nataraj (2011)

Informal sector plays a key role in low-income countries

- 70 to 80% of employment in low-income countries in informal, family-run microenterprises (Gollin 2002, Banerjee and Duflo 2005, La Porta and Shleifer 2008, 2014, Tybout 2000, 2014)
 - India: Almost 80% of manufacturing employment (Nataraj, 2011)
- Microenterprises less productive than formal counterparts (Gollin 2008, La Porta and Shleifer 2008, 2014, Nataraj 2011, McCaig and Pavcnik 2017)
- Aggregate income differences across countries reflect (mis)allocation of resources across sectors and firms (Hsieh and Klenow 2009, Restuccia and Rogerson 2008)
- International trade can contribute to economic development if it promotes the reallocation of workers out of microenterprises to formal sector (Nataraj 2011, Mccaig and Pavcnik 2017)
 - Rarely observed in the data, but numerous poor individuals/households make their living in informal businesses

Informality declines with development

Self-Employment and GDP per Capita in 2013



Source: World Development Indicators. See online Appendix for countries.

McCaig and Pavcnik (2017)

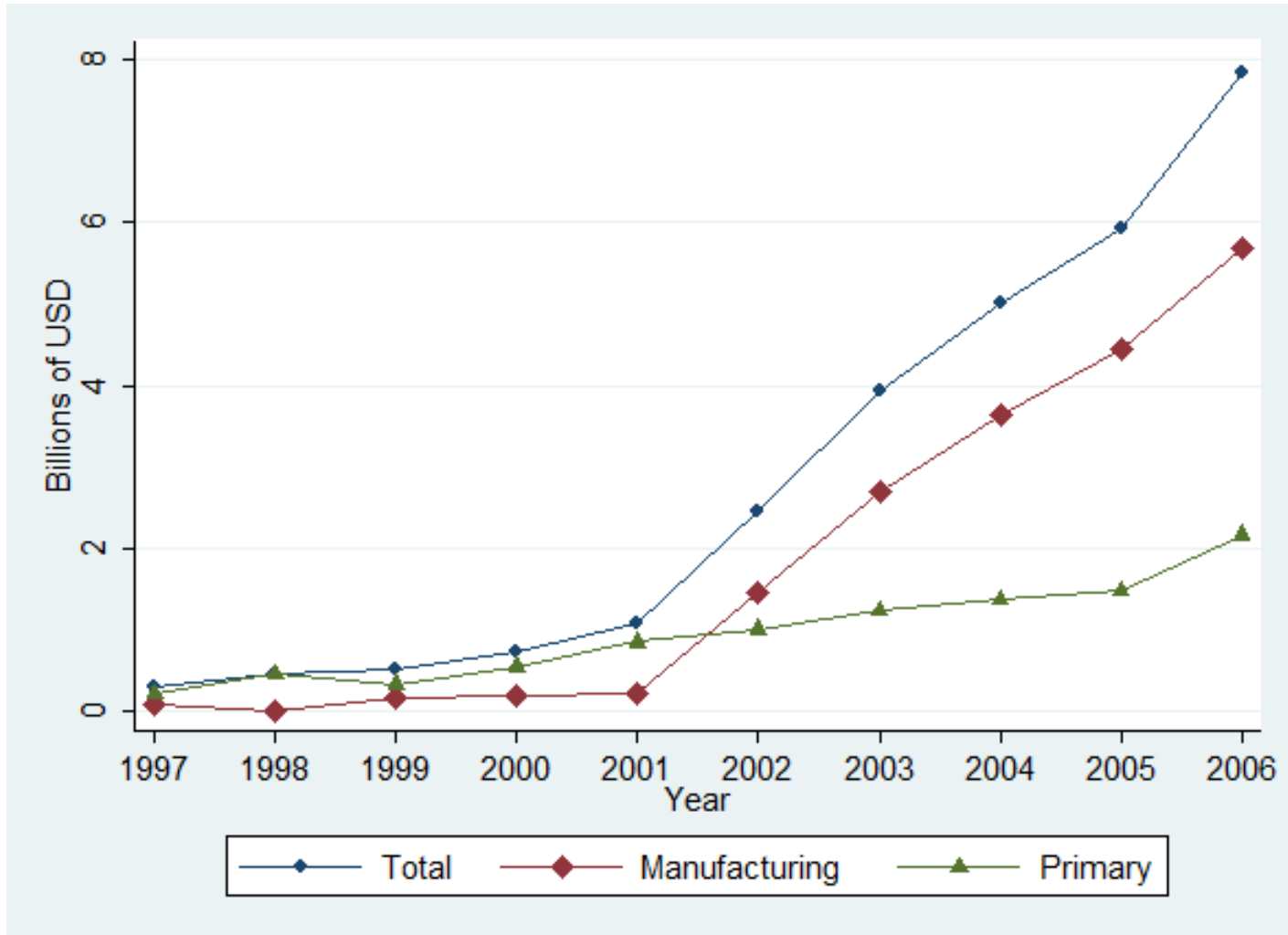
- Examines the relationship between international trade and the allocation of labor across informal, microenterprises and formal firms in Vietnam
- The labor force module of the Vietnam Household Living Standards Survey includes information on the informal sector
 - Nationally representative of the labor force in all types of firms
 - Distinguishes working for an employer/self-employed in an informal business versus a registered enterprise
 - Accounts for 85% of workers economy wide (66% in manufacturing)
- Large export shock due to the U.S.-Vietnam Bilateral Trade Agreement (BTA) implemented in December 2001

The 2001 U.S.–Vietnam Bilateral Trade Agreement

- Primary policy change: The U.S. reduces import taxes on Vietnamese exports to the U.S.
- Theory predicts reallocation toward productive firms (Melitz 2003, Lucas 1978)
- US tariffs on Vietnamese exports drop on average from 23.4 to 2.4%
 - Largest reductions in manufacturing
- The agreement has several features that help us to identify causal effects of trade

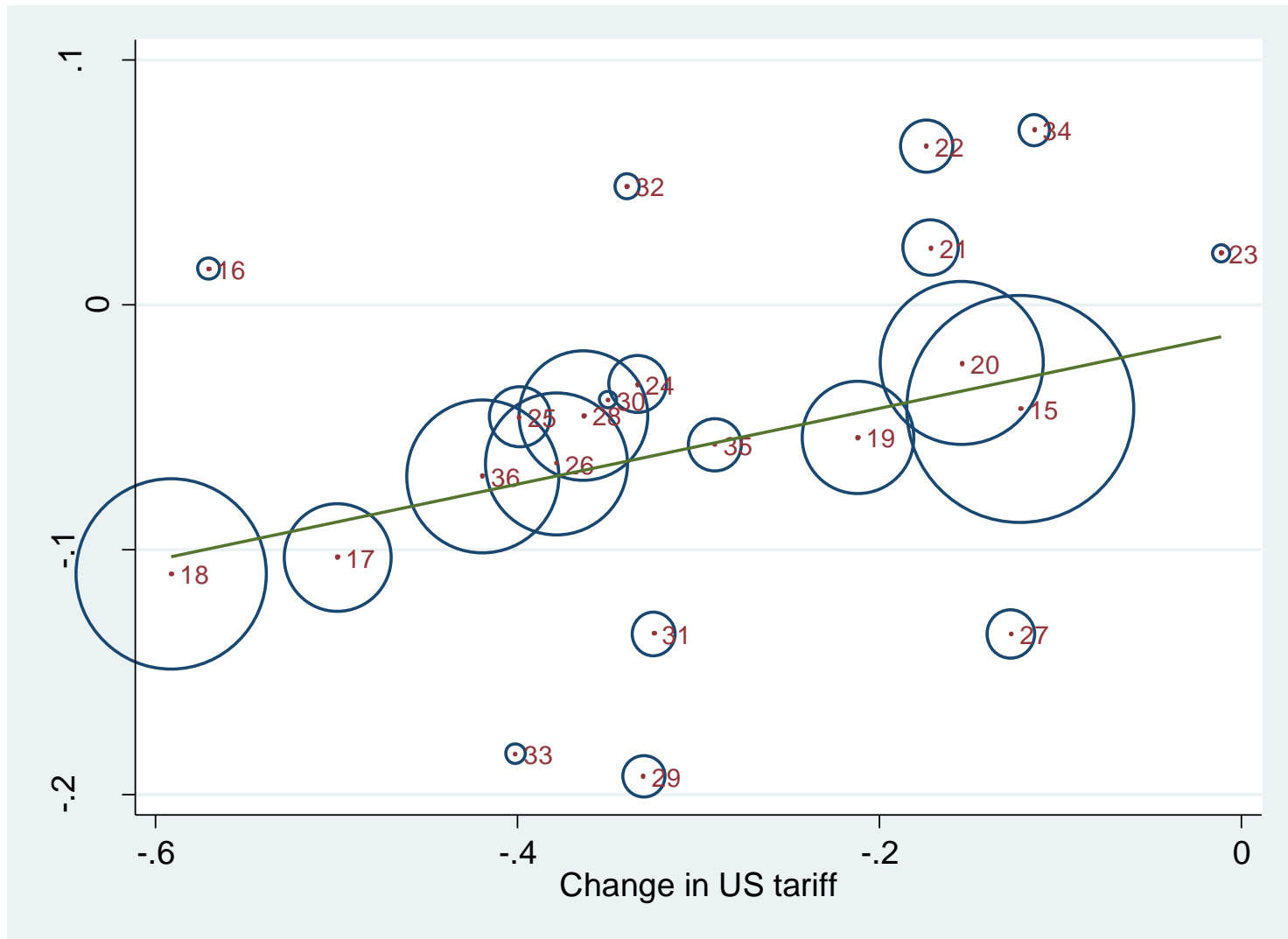


Vietnam's exports to the U.S.



- The U.S. becomes Vietnam's main export market

Informal business employment and tariffs: manufacturing



- Avg. tariff decline 30.3 pct. point \rightarrow 4.7 pct point decline

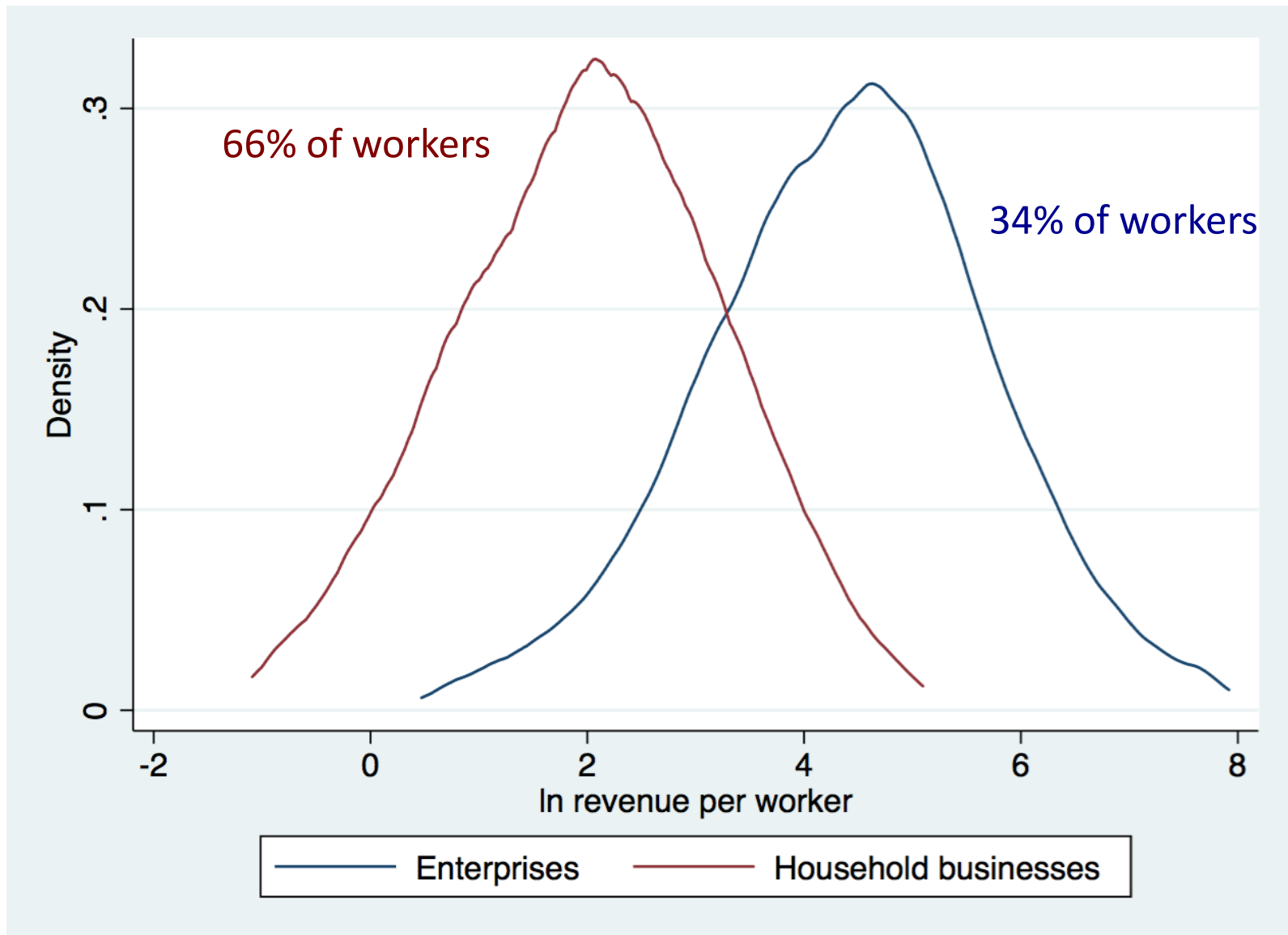
Additional Results

- Greater effects for
 - individuals in internationally integrated provinces
 - younger cohorts
 - for the least and for the most educated
- Within manufacturing, lower export costs reallocated 4.9% of workers (about 207,000) to the formal sector in manufacturing in the 2 years after the agreement
- Complement development literature that examines the effects of the removal of input-market distortions (i.e. supply side constraints) on the growth and formalization of microenterprises (Banerjee 2013, Banerjee, Karlan, and Zinman 2015, McKenzie and Woodruff 2014, Bruhn and McKenzie 2014)
 - We show that removal of an output market distortion (i.e. demand-side policy) that is more binding for better performing firms provides an impetus for job expansion in the formal sector

Potential Aggregate Productivity Gain in Manufacturing

- Labor allocation across heterogeneous economic units (sectors, employers) has consequences for aggregate productivity
- Evaluate the impact of this reallocation on aggregate labor productivity
 - Measure of labor productivity gap is key
 - Very challenging because of data constraints and other differences in informal and formal firms, including workforce composition
- Use two cross sections of nationally representative data on microenterprises and nationally representative data on formal enterprises

Large labor productivity gaps in manufacturing



Aggregate productivity gain in manufacturing

	Average revenue product of labor	Earnings
Productivity ratio	9.0	1.82
Adjusted for hours & human capital	6.0	1.24
Share of hours reallocated	0.050	0.050
Annual productivity change	3.5%	0.5%

- Labor productivity is higher in the enterprise than in the household business sector
- Important to adjust the gap for differences in worker composition across the two sectors (accounts for 37% of original gap)
- Allow output labor elasticity to differ across the two sectors and use estimates on reporting errors in microenterprises to allow for measurement error
 - Gap drops to 2.5 (1.1% annual gain)
 - Shows the sensitivity of the gap to assumptions

Movement out of the informal sector

- Over a longer period, 1999 to 2009, the share of informal workers in Vietnam's manufacturing sector fell by 14.5 percentage points (McCaig and Pavcnik 2015)
- New workers make a large contribution to this reduction as they are less likely to work in the informal sector than older workers
- Very few workers make the switch from the informal sector to the formal sector
 - Most are either always in the informal sector or in the formal sector
 - Workers that transition from the informal sector to the formal sector look more like workers already in the formal sector:
 - More educated, younger, male, non-ethnic minorities, and urban

Conclusions

- The informal sector is critical for understanding labor markets, growth, and inequality in low-income countries
- However, the majority of studies of the impact of trade on labor markets in low-income countries have focused solely on workers in formal firms
- We show that new export opportunities can be an important impetus for reallocating workers from informal to formal firms
- This has potentially significant implications for:
 - Worker welfare
 - Aggregate productivity