
Exporting Volatility: The Rise and Fall of Mexico's Maquiladoras

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Criticisms of Export Processing

- Creates few linkages with rest of economy
 - In maquiladoras, 97% of intermediate inputs are imported
 - Processing plants are excessively footloose
 - Maquiladoras are highly labor intensive
 - Share of labor compensation in manufacturing value added (1992):
 - 55% in maquiladoras, 39% in rest of Mexico, 35% in US
 - Plants may relocate in response to modest cost shocks
 - Has China's rise caused maquiladoras fall?
 - Raises volatility of output
 - As subcontractors, plants subject to “bull-whip” effects
 - Have maquiladoras become shock absorber for US firms?
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Figure 1

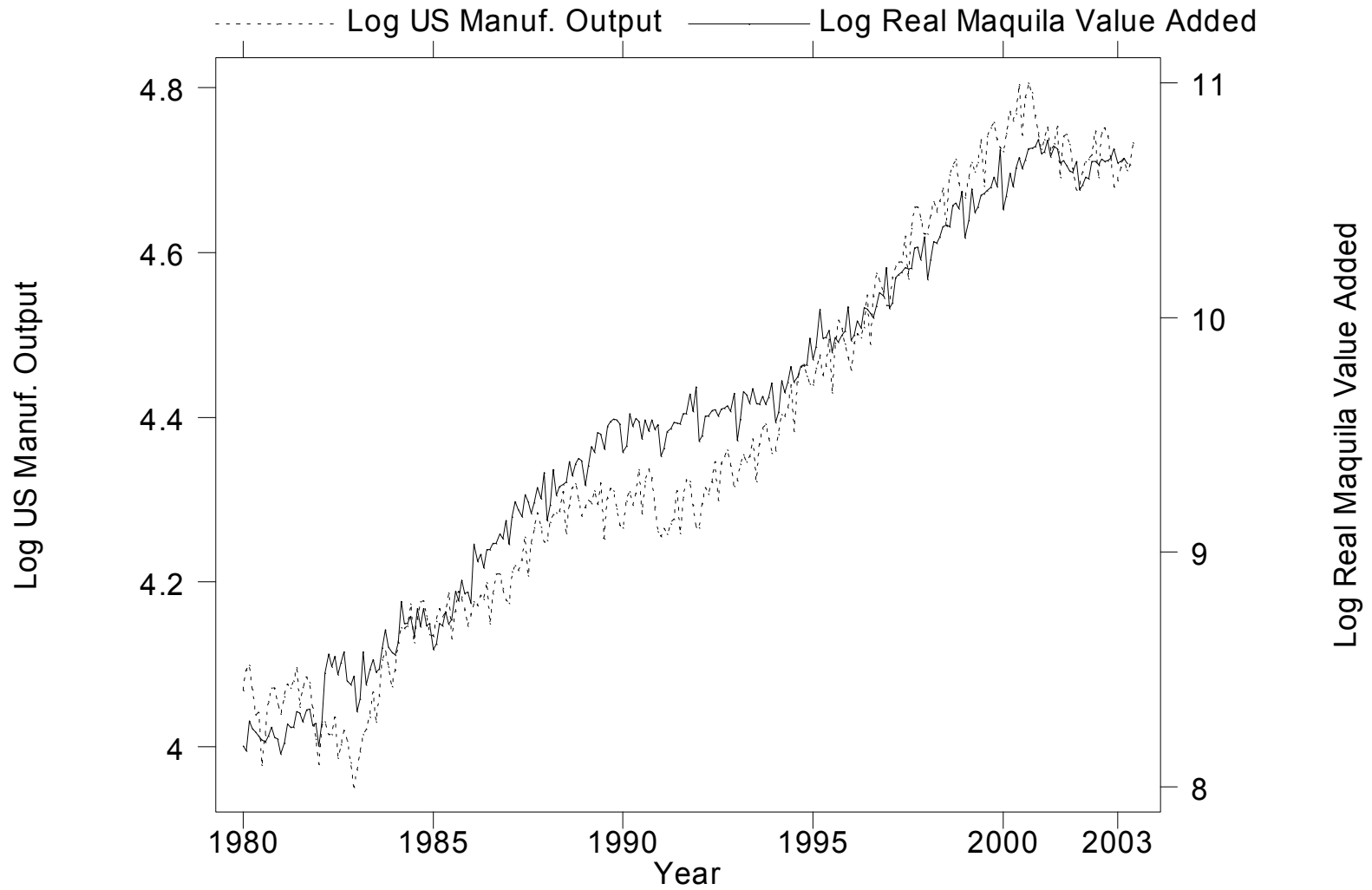
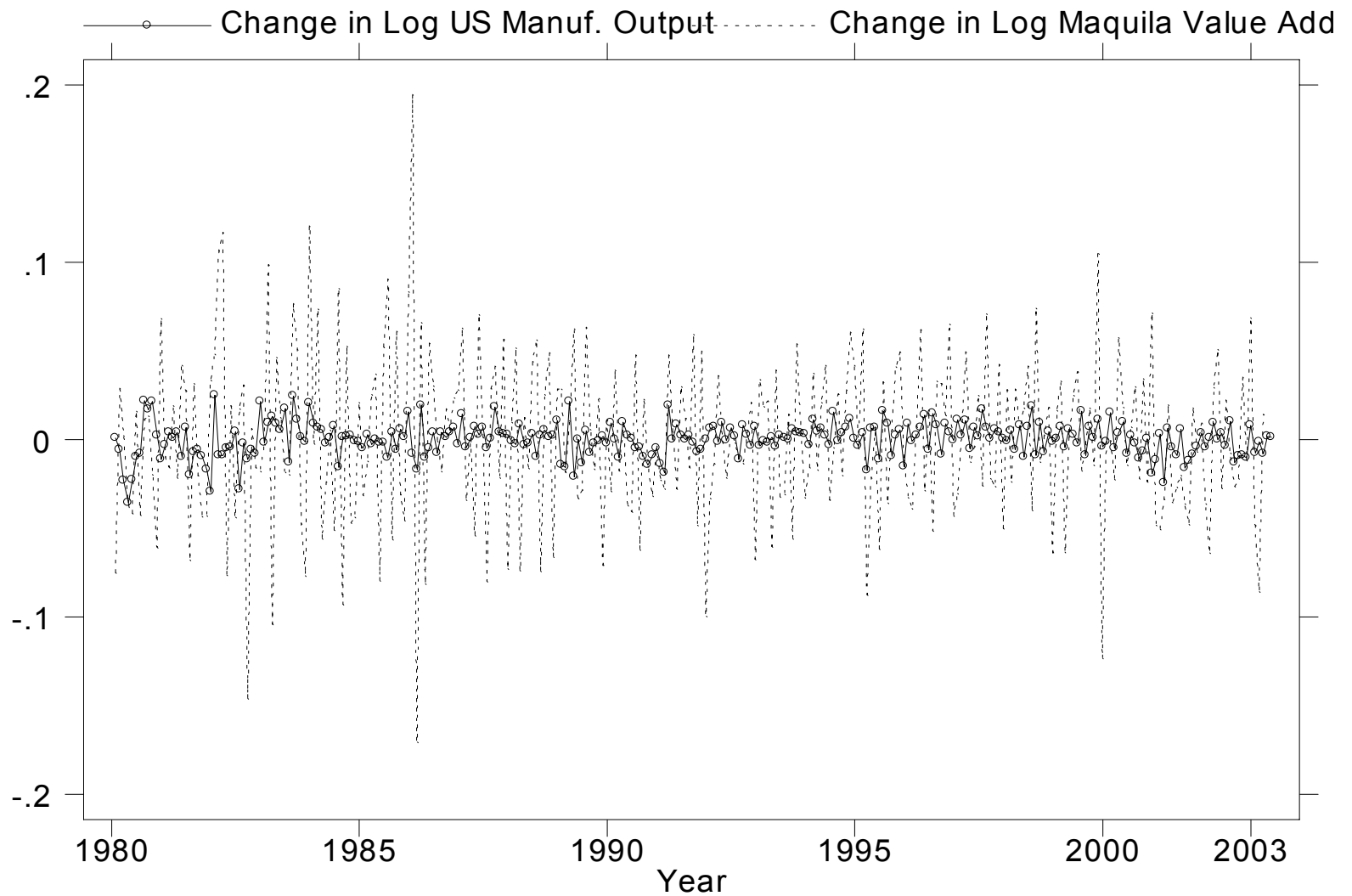


Figure 2



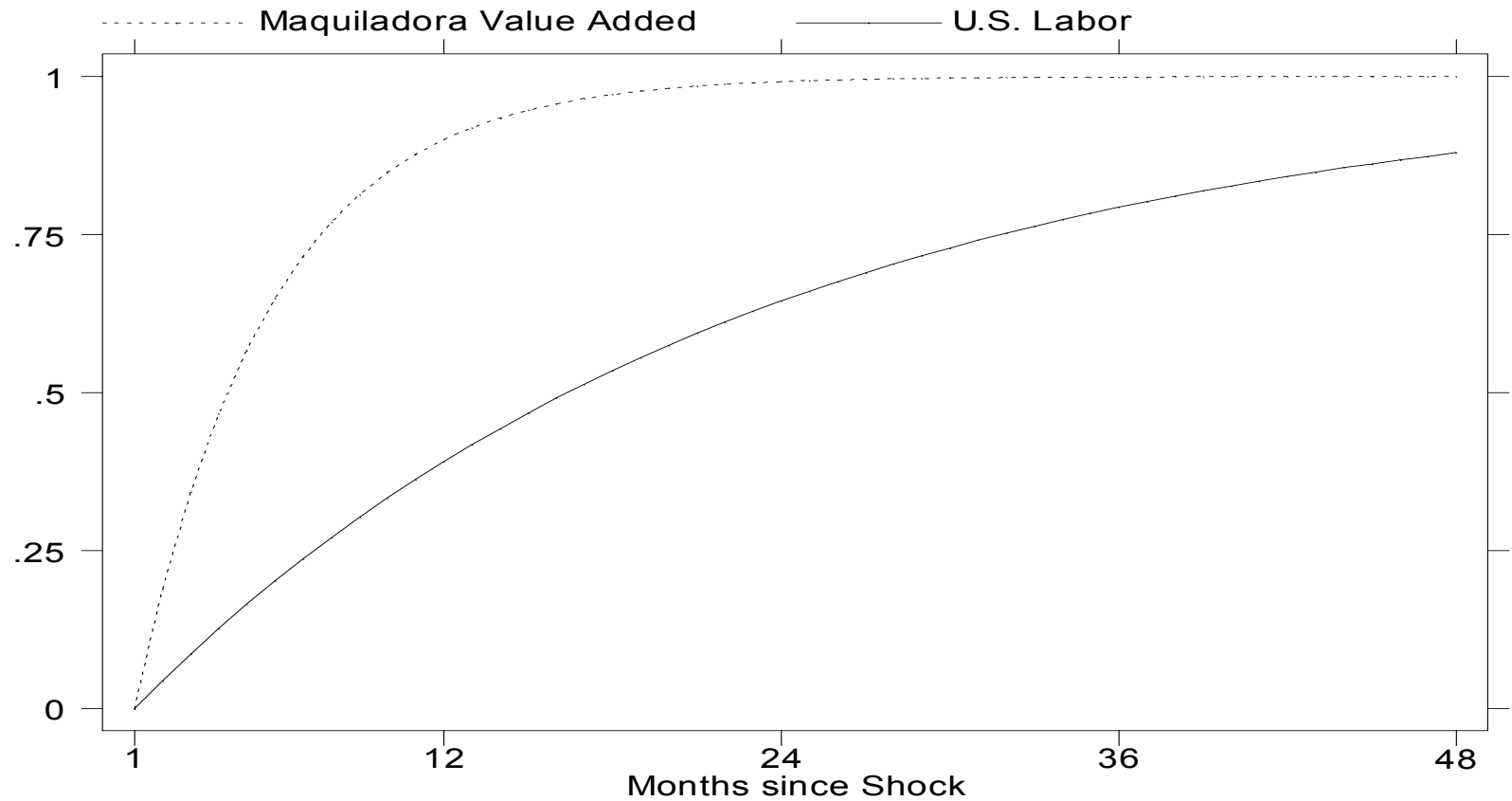
Overview of Project

- In this paper, we examine demand for imported processing services (maquiladora value added) by US manufacturing industries
 - Is maquiladora value added subject to lower adjustment costs than U.S. labor or capital?
 - Lower adjustment costs could account for higher volatility
 - Is price elasticity of demand for maquiladora output higher than for US factors of production?
 - High demand elasticity would indicate plants are footloose
 - Are imports of processing services from other countries highly substitutable for those from Mexico?
 - Would indicate vulnerability of maquiladoras to cost shocks
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Interpreting Results

- Implied adjustment speeds (rate at which factors adjust towards optimal levels each month)
 - Maquiladora value added: 0.189
 - US labor: 0.044
 - This is consistent with adjustment costs being lower for imported processing services than for US labor
 - US labor and maquiladora value added appear to be dynamic price complements
 - Consistent with input producer/input processor relationship
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Figure 6: Response to a 10% Increase in Factor Demand



Future Work

- Introduce additional production factors (including imports of processing services from other countries)
 - Estimate structural technology parameters
 - Estimate specifications separately by major industry (electronics, motor vehicles, apparel)
 - Perform dynamic simulations of how factor quantities respond to cost shocks
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