

Essays on the Transmission of Economic Shocks

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A thesis submitted for the degree of
Doctor of Philosophy in
The School of Economics of
The University of Adelaide

May 2014

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Abstract

This thesis explores the transmission of economic shocks. Although the thesis is structured as four stand-alone chapters, the common theme throughout is identifying the impact of economic shocks: either idiosyncratic shocks at the household-level, macroeconomic shocks emanating from foreign countries and transmitted through global markets, or countries' own macroeconomic policy changes (for example, structural reforms or trade reforms). Each chapter applies a different empirical methodology, including structural estimation, reduced form instrumental variables estimation, and growth accounting. Finally, each chapter utilizes a different dataset and country sample selection. While one chapter uses a micro dataset from household-level surveys, others use cross-country datasets at the aggregate country level. Both developed and developing countries are considered in the analyses.

The thesis begins by exploring the relationship between idiosyncratic income changes and consumption changes of Australian households over the period 2001-2009. A major contribution to the literature is the use of the Household Income and Labor Dynamics of Australia dataset that includes panels on both consumption and income data. For the entire sample of Australian households, nearly full consumption smoothing exists against transitory shocks. Although less consumption smoothing exists against permanent shocks, Australian households still achieve a high degree of consumption smoothing against highly persistent shocks, particularly when compared to households in the United States. Durable purchases, female labor supply, and taxes and transfers are all found to act as consumption-smoothing mechanisms.

The thesis then explores the impact of structural reforms on a comprehensive list of macro-level labor-market outcomes, including the unemployment rate, employment levels, average wage index, and labor force participation rates. After documenting the average trends across countries in the labor-market outcomes up to ten years on either side of each country's reform

year, fixed-effects ordinary least squares as well as instrumental variables regressions are performed to account for likely endogeneity of structural reforms to labor-market outcomes. Overall the results suggest that structural reforms lead to positive outcomes for labor, particularly for informal workers. Redistributive effects in favor of workers, along the lines of the Stolper-Samuelson effect, may be at work.

The thesis then explores the impact of trade liberalization on macroeconomic estimates of productivity using Brazil as a case study. Trade and economic reforms can affect the price of capital goods relative to other tradable and especially non-tradable goods. If the price of capital investments rises more than the price of all goods and services in the economy, mis-measurement of the price of capital caused by the divergence in these relative prices would result in an overestimated capital stock and underestimated TFP. This chapter overcomes this bias by constructing a capital price index using international trade data on capital goods' unit values then adjusts the index to reflect domestic Brazilian prices. A significant recovery between 1992 and 2006 is observed, highlighting the important role of the price deflator in growth accounting.

The final chapter of this thesis proposes a methodology to measure the vulnerability of a country through exports to fluctuations in the economic activity of foreign markets. Export vulnerability depends first on the overall level of export exposure, measured as the share of exports to a foreign market in gross domestic product, and second on the sensitivity of exports to fluctuations in foreign gross domestic product. This sensitivity is captured by estimating origin-destination specific elasticities of exports with respect to changes in foreign gross domestic product using a gravity model of trade. Although the results suggest differences in elasticity estimates across regions as well as product categories, the principal source of international heterogeneity in export vulnerability results from differences in export exposure to global markets.

Declaration

I certify that this work contains no material that has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

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Claire H. Hollweg, 1 May 2014

Acknowledgements

This thesis would not have been possible without the support given by numerous people and organizations.

My sincere acknowledgements and thanks go to Associate Professor Markus Brückner, Dr. Daniel Lederman, and Professor Kym Anderson for helpful advice, comments, and supervision over the past years. I am also grateful to Professor Christopher Findlay and Dr. Jacob Wong for their continual encouragement and guidance throughout my postgraduate studies. I also thank two anonymous examiners for their insightful comments and suggestions.

On the financial side, I am in gratitude for support from the International Trade Department of the World Bank, the School of Economics of the University of Adelaide, as well as the University of Adelaide Graduate Centre for funding provided by the Adelaide Graduate Fee Scholarship.

On a personal note I would like to thank my husband Kevin Jones, my sister Terill Hollweg, and my parents Leslie and Joseph Hollweg for their continued love and support.

Structure of Thesis

This thesis contains four chapters, which are stand-alone pieces with self-contained references, tables and figures.

The first chapter, titled “Measuring Consumption Smoothing in Australia: An empirical test of the permanent income hypothesis”, uses microeconomic data to estimate a structural macroeconomic model of the degree of consumption smoothing to income shocks of Australian households. This chapter is a replication of a study undertaken in the United States.

The second and third chapters study the impact at the country level of government-imposed permanent shocks. The second chapter, titled “Structural Reforms and Labor Market Outcomes: International panel data evidence”, is a cross-country empirical analysis of the impact of trade-related and other structural reform shocks on labor-market outcomes. This chapter has been used as a background paper into the report titled “Sticky Feet: How Labor Market Frictions Shape the Impact of International Integration on Labor Market Outcomes” by C. H. Hollweg, D. Lederman, D. Rojas, and E. Ruppert Bulmer. A version of this chapter has also been submitted for publication to *The World Economy*.

The third chapter, titled “Measuring Capital Matters”, is a case study for Brazil and considers the impact of trade liberalization on the relative price of capital and resulting productivity measures. This chapter has been used as a background paper into the report titled “Brazil’s Productivity Challenge after Economic Reforms” by R. Clark, L. De Zoratto, M. Dutz, C. H. Hollweg, and D. Lederman.

The fourth chapter considers the impact of short-run demand shocks emanating from major global markets on developing countries through the trade channel. A version of this chapter was published as a World Bank Policy Research Working Paper.

Statements of Contributions

Statement of Authorship

Title of Paper	Structural Reforms and Labor Market Outcomes: International Panel-Data Evidence
Publication Status	<input type="radio"/> Published, <input type="radio"/> Accepted for Publication, <input checked="" type="radio"/> Submitted for Publication, <input type="radio"/> Publication style
Publication Details	Submitted to the World Economy in June 2013 as: Hollweg, C. H., D. Lederman, and D. Mitra (2013). "Structural Reforms and Labor Market Outcomes: International Panel-Data Evidence!"

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Signature		Date	

Statement of Authorship

Title of Paper	Measuring Capital Matters
Publication Status	<input type="radio"/> Published, <input type="radio"/> Accepted for Publication, <input type="radio"/> Submitted for Publication, <input checked="" type="radio"/> Publication style
Publication Details	Unpublished

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Signature		Date	

Name of Co-Author			
Contribution to the Paper			
Signature		Date	

Statement of Authorship

Title of Paper	Monitoring Export Vulnerability to Changes in Growth Rates of Major Global Markets
Publication Status	<input checked="" type="radio"/> Published, <input type="radio"/> Accepted for Publication, <input type="radio"/> Submitted for Publication, <input type="radio"/> Publication style
Publication Details	Hollweg, C. H., D. Lederman, and J.-D. Reyes (2012). "Monitoring Export Vulnerability to Changes in Growth Rates of Major Global Markets." Policy Research Working Paper No. 6266, The World Bank, Washington, DC.

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Signature		Date	Oct. 8, 2013

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