

# Exchange Rates and the Trading System

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# Objective is trade . . .

- GATT – to promote trade “by entering into reciprocal and mutually advantageous arrangements directed to the substantial reduction of tariffs and other barriers to trade and to the elimination of discriminatory treatment in international commerce” (Preamble).
- World Bank – “to promote the long-range balanced growth of international trade and the maintenance of equilibrium in balances of payments by encouraging international investment for the development of the productive resources of members” (Articles of Agreement I:3).
- IMF - “to promote international monetary cooperation . . . to facilitate the expansion and balanced growth of international trade, and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members” (Articles of Agreement I:1-2).

# Fears for trade

- Would exchange rate fluctuations depress trade?
- Would flexible exchange rates affect trade policy?



## Exchange rate variability and the level of international trade

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Theoretical research has shown that under reasonable assumptions exchange rate variability ought to depress the level of trade. This paper builds a theoretical model designed to exaggerate the negative effect of exchange rate variability on trade in order to calibrate an upper bound to the potential size of this effect. Numerical analysis demonstrates that exchange rate variability of the magnitude currently observed among industrial countries has an insignificant effect on the level of trade. This result is robust with respect to a wide range of parameter values and with respect to reasonable extensions of the model.

### 1. Introduction

A very popular topic of research in international economics is the effect of exchange rate variability on international trade. Resolution of this issue has obvious implications for the choice of an international monetary system. In particular, if large fluctuations in relative prices under the floating exchange rate regime have depressed the level of trade worldwide and reduced global welfare, there would be a strong case for a return to fixed exchange rates.<sup>1</sup>

Theoretical studies generally predict that increased uncertainty about

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<sup>1</sup>Any argument for fixed exchange rates would have to address the issue of uncertainty associated with potential currency realignments. If monetary policies were credibly committed to avoiding realignments, there might be welfare losses due to the inability to use monetary policy for domestic stabilization. Finally, it could be argued that volatile exchange rates are an efficient mechanism for directing international trade and investment to their best uses.

## Exchange rate volatility and trade flows: a review article

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Exchange rate  
volatility

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### Abstract

**Purpose** – Since the last review article by McKenzie, the literature has experienced a surge in the number of empirical articles. These new contributions, coupled with those that were overlooked by McKenzie, set the stage for this review. Many of the recent studies have been empirical in nature and these deserve specific attention. Thus, this paper aims to survey and review all of the studies by paying attention to the attributes outlined in the text.

**Design/methodology/approach** – This paper examines the vast empirical literature, up to 2005, to assess the main trends in modeling and estimating these trade flows at the aggregate, bilateral, and sectoral levels.

**Findings** – The increase in exchange-rate volatility since 1973 has had indeterminate effects on international export and import flows. Although it can be assumed that an increase in risk may lead to a reduction in economic activity, the theoretical literature provides justifications for positive or insignificant effects as well. Similar results have been found in empirical tests. While modeling techniques have evolved over time to incorporate new developments in econometric analysis, no single measure of exchange-rate volatility has dominated the literature.

**Originality/value** – An argument put forward by the opponents of the floating exchange rates is that such rates introduce uncertainty into the foreign exchange market, which could deter trade flows. However, a theoretical argument is put forward by some to show that uncertainty could also boost trade flows if traders increase their trade volume to offset any decrease in future revenue due to exchange rate volatility. The empirical literature reviewed in this paper supports both views.

**Keywords** Exchange rates, International trade

**Paper type** Case study

### 1. Introduction

After the post-war Bretton Woods system of fixed exchange rates collapsed in 1973, the relative prices of currencies began to fluctuate. These fluctuations brought increased uncertainty to traders; this risk may influence the volume of international trade. Since the beginning of the current float, numerous theoretical papers have been written to explain the effects of increased exchange-rate volatility on trade, and even more have been published evaluating these ideas empirically. These studies have applied different methods and obtained different results, but no consensus has been reached regarding how to model, or even how to properly measure, exchange-rate volatility.

Since the last review article by McKenzie (1999), the literature has experienced a surge in the number of empirical articles. These new contributions, coupled with those that were overlooked by McKenzie, set the stage for this review. Many of the recent studies have been empirical in nature and these deserve specific attention. Thus, this paper aims to survey and review all of the studies by paying attention to their following attributes. First, in section II we provide a brief overview of the theoretical literature that outlines the reasoning behind why increased exchange-rate volatility might hurt – or help – the volume of trade. Next, in section III the question of finding



# Fears for trade

- ~~Would exchange rate fluctuations depress trade?~~
- Would flexible exchange rates affect trade policy?

## *The Case for Flexible Exchange Rates\**

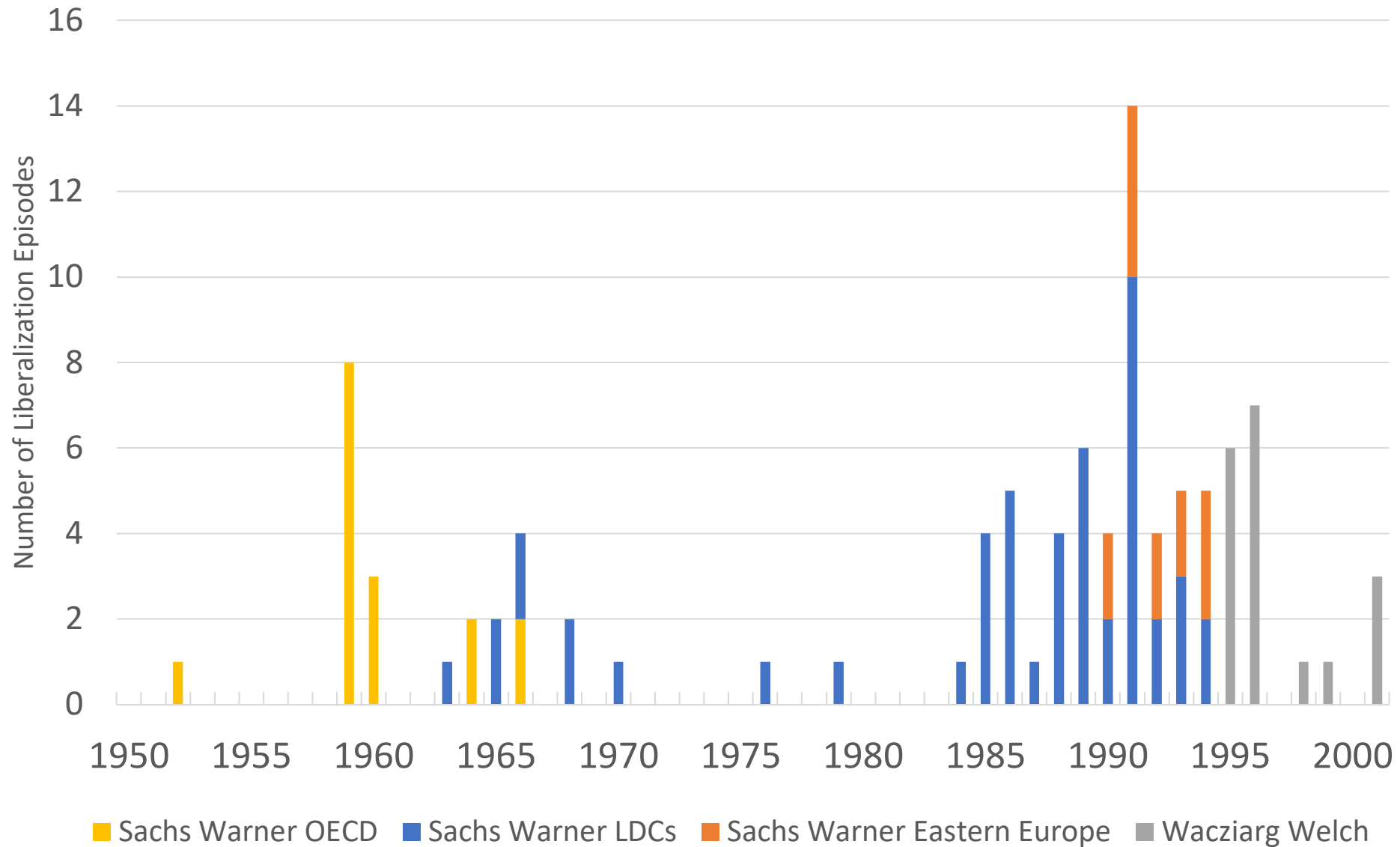
THE Western nations seem committed to a system of international payments based on exchange rates between their national currencies fixed by governments and maintained rigid except for occasional changes to new levels. This system is embodied in the statutes of the International Monetary Fund, which provides for changes in exchange rates of less than 10 per cent by individual governments without approval of the Fund and for larger changes only with approval; it is implicit in the European Payments Union; and it is taken for granted in almost all discussions of international economic policy.

Whatever may have been the merits of this system for another day, it is ill suited to current economic and political conditions. These conditions make a system of flexible or floating exchange rates—exchange rates freely determined in an open market primarily by private dealings and, like other market prices, varying from day to day—absolutely essential for the fulfilment of our basic economic objective: the achievement and maintenance of a free and prosperous world community engaging in unrestricted multilateral trade. There is scarcely a facet of international economic policy for which the implicit acceptance of a system of rigid exchange rates does not create serious and unnecessary difficulties. Promotion of rearmament, liberalization of trade, avoidance of allocations and other direct controls both internal and external, harmonization of internal monetary and fiscal policies—all these problems take on a different cast and become far easier

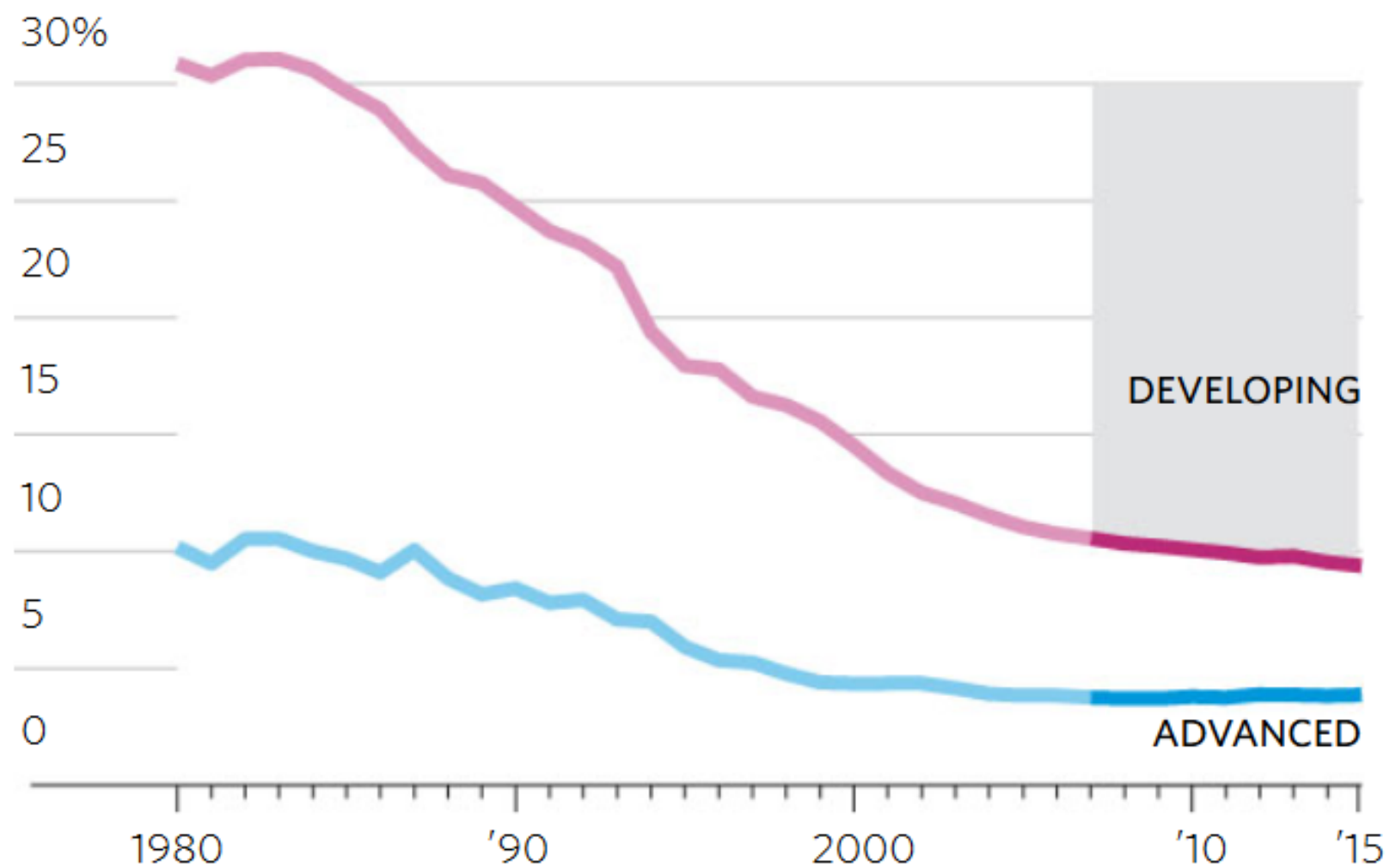
\* This paper had its origin in a memorandum written in the fall of 1950 when I was a consultant to the Finance and Trade Division of the Office of Special Representative for Europe, United States Economic Cooperation Administration. Needless to say, the views it expresses are entirely my own. I am grateful to Joel Bernstein and Maxwell Obit for criticism of the original memorandum and to Earl J. Hamilton and Lloyd A. Metzler for criticism of a subsequent draft. The paper owes much, also, to extensive discussion of the general problem with a number of friends, particularly Aaron Director, James Meade, Lloyd Mints, and Lionel Robbins. Unfortunately, these discussions failed to produce sufficient agreement to make a disclaimer of their responsibility unnecessary.

“a system of flexible or floating exchange rates . . . absolutely essential for the fulfillment of our basic economic objective: the achievement and maintenance of a free and prosperous world community engaging in unrestricted multilateral trade.”

# Trade openings



## Average tariff rates, by country's level of economic development





# No free lunch . . .

- More flexible exchange rates allows removal of import controls imposed for balance of payments purposes
- Real exchange rate fluctuations can lead to (sectoral) protectionism in the form of temporary trade barriers

# TRADE POLICY

**IN THE 1980s**

*Edited by*  
**William R. Cline**

## CHAPTER **3**

### Exchange Rates and Trade Policy

*C. Fred Bergsten and John Williamson*

**T**rade policy has traditionally been associated with tariffs, quotas, export subsidies, and other nontariff distortions. Relatively little attention has been paid to the impact of exchange rates on trade policy, despite widespread analyses by international monetary economists of their impact on trade flows. This paper argues that the continued failure to link the trade and monetary aspects of international economic exchange is a major mistake, in terms both of diagnosing the policy problems which now confront the trading system and of dealing with those problems in the foreseeable future.

#### Misaligned Currencies and Trade Protection

The bifurcation between money and trade, at both the analytical and policy levels, is understandable yet strange. It is understandable for three reasons. First, different officials and, usually, different ministries are responsible for monetary and trade matters in most countries. Different institutions, the International Monetary Fund (IMF) and the General Agreement on Tariffs and Trade (GATT), bear such responsibilities at the international level. The degree of coordination between these groups waxes and wanes over time, depending upon the individuals who man them, but there are few systematic interlinkages. Hence there is no assured method to coordinate monetary and

The authors are indebted to Paul Armington, Max Corden, William R. Cline, Rachel McCulloch, and participants in the Institute's conference for comments on a previous draft; the usual caveats apply.



## Import protection, business cycles, and exchange rates: Evidence from the Great Recession<sup>☆</sup>



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### ABSTRACT

This paper estimates the impact of macroeconomic fluctuations on import protection policies over 1988:Q1–2010:Q4 for five industrialized economies – the United States, European Union, Australia, Canada and South Korea. We find evidence of a strong countercyclical trade policy response in the pre-Great Recession period of 1988:Q1–2008:Q3 during which increases in domestic unemployment rates, real appreciations in bilateral exchange rates, and declines in the GDP growth rates of bilateral trading partners led to substantial increases in new temporary trade barriers. We then apply this pre-Great Recession empirical model to realized macroeconomic data from 2008:Q4 to 2010:Q4 and find that it predicts a surge of new import protection during the Great Recession – e.g., for the US and EU, the model predicts that new trade barriers would cover an additional 15 percentage points of nonoil imports, well above the baseline level of 2–3% of import coverage immediately preceding the crisis. Finally, we examine why the realized trade policy response differed from model predictions. While exchange rate movements played an important role in limiting new import protection during the Great Recession, we provide evidence of one particularly important change in trade policy responsiveness; i.e., in this period, governments refrained from imposing new temporary trade barriers against foreign trading partners experiencing their own weak or negative economic growth.

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We underscore the critical importance of rejecting protectionism and not turning inward in times of financial uncertainty. In this regard, within the next 12 months, we will refrain from raising new barriers to investment or to trade in goods and services, imposing new export restrictions, or implementing World Trade Organization (WTO) inconsistent measures to stimulate exports.

– G20 Declaration, November 15, 2008

### 1. Introduction

The imposition of the Smoot–Hawley tariffs during the early days of the Great Depression has since established a widespread presumption that import tariffs and other forms of trade protection rise during periods of macroeconomic weakness. During the Great Recession, the fear of new import restrictions led to pre-emptive statements like the G20 Declaration of November 2008.

This paper uses quarterly data for the United States, European Union, Australia, Canada, and South Korea to estimate the impact of macroeconomic shocks on import protection policies over 1988–2010. We find evidence of a robust countercyclical trade policy response in the pre-Great Recession period of 1988:Q1–2008:Q3. For example, a one standard deviation increase in the change in the domestic unemployment rate is associated with a 52% increase in the number of imported products over which an economy initiates new temporary trade barrier investigations in the following quarter. Other macroeconomic factors also have important effects on trade policy; a one standard deviation appreciation in the bilateral real exchange rate leads to a 33% increase in import protection while a one standard deviation decrease in the growth rate of real GDP in a foreign trading partner results in a 60% increase. Finally, when we extend our analysis through 2010:Q4 so as to

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# Your task . . . .

- Write up 10-15 pages of your remarks in next 4 weeks?