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G7 CURRENT ACCOUNT IMBALANCES:  
SUSTAINABILITY AND ADJUSTMENT

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### **ABSTRACT**

This volume collects the eleven original papers that were written for the NBER Project on G7 Current Account Imbalances. Four major themes emerged from the papers written for the project. First, there was broad agreement that the current account imbalances that prevailed among the G7 countries as of June 2005 would ultimately decline, although there was no consensus on when or how this would occur. Second, there was agreement that adjustments in global currency markets would likely be associated with the shifts in global saving and investment patterns that would be required to bring about the ultimate decline in G7 current account imbalances. Third, while the focus of the conference was on current account imbalances in the G7 countries, it was recognized that the aggregate excess of saving over investment that existed among the emerging market economies at the time of the conference, as well as the currency intervention policies of some of these countries, were contributing to the current imbalances in the G7 that prevailed as of June 2005. Fourth, there was a consensus that re-valuation of the evolving foreign asset and liability positions of the G7 countries would play a role during process by which current account imbalances narrowed, although there was range of opinion concerning how large a role such revaluation effects would play.

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## **G7 CURRENT ACCOUNT IMBALANCES: SUSTAINABILITY AND ADJUSTMENT**

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This volume collects the eleven original papers that were written for the NBER Project on G7 Current Account Imbalances. The individual papers were commissioned in the winter of 2004. A pre-conference was held in Cambridge Massachusetts in July 2004 at which participants presented outlines of their papers, reviewed preliminary results, and received extensive feedback from other project participants. The papers themselves were written during the fall of 2004 and the winter and spring of 2005, and were presented at a conference in Newport RI in June 2005. In addition to the authors, the conference also included a distinguished group of experts who served as discussants for each paper. The written analysis by the discussants are also included in this volume.

As the title of this volume indicates, the focus of this project was on the current account imbalances of the world's seven major industrialized countries. The rationale for this focus was three-fold. First it recognized that current account imbalances in major economies with open capital markets and flexible exchange rates – both deficits and surpluses - are a general equilibrium phenomenon. Second, the subject of current account adjustment in emerging economies and the interplay between this adjustment and currency and financial crises were recently the focus of another NBER Project. Third, the project's focus on the G7 allowed for, and indeed enriched, the very considerable analysis of and prospects for the ultimate adjustment of the US current account deficit.

Four major themes emerged from the papers written for the project as well as the lively and informed discussion of them at the Newport conference. First, there was broad agreement among conference participants that the current account imbalances that prevailed among the G7 countries as of June 2005 would ultimately decline, although there was no consensus on when this would occur or, conditional on its occurring, on the precise scenario by which it would occur. Second, there was agreement that adjustments in global currency markets would likely be associated with the shifts in global saving and investment patterns that would be required to bring about the ultimate decline in G7 current account imbalances. Third, while the focus of the conference was on current account imbalances in the G7 countries, it was recognized in several papers and more broadly in the discussion that the aggregate excess of saving over investment that existed among the emerging market economies at the time of the conference, as well as the currency intervention policies of some of these countries, was contributing to the current imbalances in the G7 that prevailed as of June 2005. Fourth, there was broad consensus that re-valuation of the evolving foreign asset and liability positions of the G7 countries (via some combination of exchange rate and asset price adjustment) would play a role during the process by which current account imbalances narrowed, although it should be

noted that there was range of opinion concerning how large a role such revaluation effects would play in the adjustment process.

The eleven papers written for the project fall into three broad categories and are thus arranged in the volume in three sections. *Section One: Origins of G7 Current Account Imbalances*; *Section Two: Empirical Studies of G7 Current Account and Exchange Rate Adjustment*; and *Section Three: Theoretical Perspectives on Current Account Sustainability and Adjustment*. An overview of the contributions to this volume as contained in each of these Sections is now provided.

### *Section One: Origins of G7 Current Account Imbalances*

This section contains three papers written Pierre-Olivier Gourinchas and Helene Rey; Philip Lane and Gian Maria Milesi-Ferretti; and Michael Dooley, David Folkerts-Landau, and Peter Garber. The papers by Lane and Milesi-Ferretti and Gourinchas and Rey emphasize the empirical importance of the currency composition of international assets and liabilities and the role of asset valuation changes, including those induced by exchange rate changes, in facilitating global adjustment to current account imbalances. The contribution by Dooley, Folkerts-Landau, and Garber focuses on the link between the currency regime and the development strategy of rapidly growing Asian countries, especially China, and in turn how sustainable and for how long is this currency/intervention regime and development strategy. Each paper, in its own way, offers a sophisticated and novel application of the venerable “capital account theory of the current account”.

The volume begins with “From World Banker to World Venture Capitalist: The US External Adjustment and The Exorbitant Privilege” by Pierre-Olivier Gourinchas and Helene Rey. In their paper, the authors ask the following fundamental question: does the center country of the International Monetary System enjoy an “exorbitant privilege” that significantly weakens its external constraint as has been asserted in some European quarters? Using a newly constructed dataset, the authors perform a detailed analysis of the historical evolution of US external assets and liabilities at market value since 1952. They find strong evidence of a sizeable excess return of gross assets over gross liabilities. Interestingly, this excess return has increased after the collapse of the Bretton Woods fixed exchange rate system. It is mainly due to a “return discount”: within each class of assets, the total return (yields and capital gains) that the US has to pay to foreigners is smaller than the total return the US gets on its foreign assets. The authors also find evidence of a “composition effect”: the US tends to borrow short and lend long. As financial globalization accelerated its pace, the US transformed itself from a World Banker into a World Venture Capitalist, investing greater amounts in high yield assets such as equity and FDI. Gourinchas and Rey use these findings to cast some light on the sustainability of the current global imbalances.

In, “A Global Perspective on External Positions,” Philip Lane and Gian Maria Milesi-Ferretti examine the increased dispersion in net external positions in recent years, particularly among industrial countries. The paper provides a simple accounting framework that disentangles the factors driving the accumulation of external assets and liabilities (such as trade imbalances, investment income flows, and capital gains) for major external creditors and debtors. It also examines the factors driving the foreign asset

portfolio of international investors, with a special focus on the weight of U.S. liabilities in the rest of the world's stock of external assets. Finally, it relates the empirical evidence to the current debate about the roles of portfolio balance effects and exchange rate adjustment in shaping the external adjustment process. The paper makes extensive use of a new data set on international valuations of the foreign asset positions of the world's major economies.

The third chapter in this section is, "Direct Investment, Rising Real Wages and the Absorption of Excess Labor in the Periphery," by Michael Dooley, David Folkerts-Landau, and Peter Garber. This chapter argues that the expansion of the volume of trade in goods and services and the volume of two way trade in financial assets is the backbone of a successful industrialization and development strategy. If the price to be paid for this strategy includes financing a large US current account deficit governments in the periphery will see it in their interest to provide financing even in circumstances where private international investors would not. The losses and abrupt price breaks forecast by the conventional wisdom of international macroeconomics arise from a model of very naïve government behavior. In that model, periphery governments stubbornly maintain a distorted exchange rate until it is overwhelmed by speculative capital flows. In their view, a more sensible political economy guides governments in Asia. The objectives are the rapid mobilization of underemployed Asian labor and the accumulation of a capital stock that will remain efficient even after the system ends. The mechanism that regulates the mobilization is a cross-border transfer to countries like the United States that are willing to restructure their labor markets to accommodate the rapid growth of industrial employment in Asia. Net imbalances like those now observed for the United States may or may not be a byproduct of this system. But such imbalances are only one of the constraints on the system, and for considerable periods of time may not be as binding a constraint as in conventional theories.

### *Section Two: Empirical Studies of G7 Current Account and Exchange Rate Adjustment*

This Section contains five empirical papers written by Caroline Freund and Frank Warnock; Richard Clarida, Manuella Goretti, and Mark Taylor; Muge Adalet and Barry Eichengreen; Catherine Mann and Katharina Plück; and Menzie Chinn and Jeffrey Frankel. The first three papers in this section share in common a focus on the possible empirical connection between the size of a current account imbalance and the way in which and the channels through which adjustment in that imbalance take place. The paper by Mann and Plück makes the empirical case that a dis-aggregated analysis of trade flows across individual traded good sectors and bilateral country-goods pairs offers useful insights into the nature of current account adjustment once it begins to occur. The paper by Chinn and Frankel is an intriguing empirical exploration of the factors that could propel the Euro to be a viable alternative to the dollar as an international reserve currency.

This Section begins with, "Current Account Deficits in Industrial Countries: The Bigger They Are, The Harder They Fall?" a paper by Caroline Freund and Frank Warnock that examines episodes of current account adjustment in industrial countries. There are a number of interesting findings reported in the paper. The main findings are (i) larger deficits take longer to adjust and are associated with significantly slower income growth

(relative to trend) during the current account recovery than smaller deficits, (ii) consumption-driven current account deficits involve significantly larger depreciations than deficits financing investment, and (iii) there is little evidence that deficits in economies that run persistent deficits, have large net foreign debt positions, experience greater short-term capital flows, or are less open are accommodated by more extensive exchange rate adjustment or slower growth. The findings are consistent with earlier work showing that, in general, current account adjustment tends to be associated with slow income growth and a real depreciation. Overall, the results support claims that the size of the current account deficit and the extent to which it is financing consumption matter for adjustment.

In “Are There Thresholds of Current Account Adjustment?,” Richard Clarida, Manuella Goretti, and Mark Taylor test for and estimate nonlinear models of current account adjustment for the G7 countries. They find evidence of nonlinear adjustment, and show that a threshold model captures the essential features of the data. The model allows for country specific means, and country and regime specific deficit and surplus adjustment thresholds. The evidence indicates threshold behavior in current account adjustment for the G7 countries, such that the dynamics of adjustment towards equilibrium depend upon whether the current-account/ net output ratio breaches estimated, country specific current account surplus or deficit thresholds. Both the speeds of adjustment and the size of the thresholds are found to differ significantly across countries. In addition, the authors also find evidence of shifts in means and variances of exchange rate changes, stock returns, and interest differentials that coincide with the current account adjustment regimes identified by the model. Their paper concludes with an analysis of why the US current account deficit as of 2005 had as yet failed to begin to adjust, notwithstanding the fact that it long since crossed a threshold at which adjustment would be expected to occur based upon the empirical estimates presented in the paper for the US and other G7 countries.

In, “Current Account Reversals: Always a Problem?” Muge Adalet and Barry Eichengreen take a first cut at measuring the frequency, magnitude and effects of current account reversals in the gold standard era (1880-1914), the interwar period (1919-39), Bretton Woods (1945-70), and the post-Bretton Woods float (1972-1997). They use regression analysis to see how far one can get in ascribing the cross period differences to observable characteristics of countries and the international economic environment. The results confirm that the gold standard era and the years since 1970 differed strikingly from one another: reversals were smaller, less frequent and less disruptive in the gold standard period. Controlling for, inter alia, the size of the initial current account imbalance, the movement in the real exchange rate and the state of the global economy does not make this difference go away. Evidently, there was something else about the gold standard years that rendered current accounts more stable and their reversal less disruptive. The paper considers a set of case studies in an effort to shed more light on the issue.

In, “The US Trade Deficit: A Disaggregated Perspective,” Catherine Mann and Katharina Plück presents new estimates for the elasticity of US trade flows using bilateral, commodity detailed trade data for 31 countries, using measures of expenditure and trade prices matched to commodity groups, and including a commodity-and-country specific proxy for global supply-cum-variety. Using the United Nations Commodity

Trade Statistics Database (UN Comtrade), they construct bilateral trade flows for 31 countries in four different categories of goods based on the Bureau of Economic Analysis's 'end-use' classification system—autos, industrial supplies and materials (excluding energy), consumer goods, and capital goods. They find that using expenditure matched to commodity category yields more plausible values for the demand elasticities than does using GDP as the measure of demand that drives trade flows. Controlling for country and commodity fixed effects, they find that industrial and developing countries have demand elasticities that are statistically significant, and that generally differ between income group and across product category. Relative prices for the industrial countries have plausible parameter values, are statistically significant, and differ across the product groups, but the relative prices for developing countries are poorly estimated. They find that variety is an important variable for the behavior of capital goods trade. Because the commodity composition of trade and of trading partners has changed dramatically, particularly for imports, they find that the demand elasticity for imports is not constant. Comparing the in-sample performance of the disaggregated model against a benchmark that uses aggregated data and GDP as the expenditure variable, the disaggregated model predicts exports better in-sample, but does not predict imports as well as the benchmark model.

The final paper in this Section is, "Will the Euro Eventually Surpass the Dollar as Leading International Reserve Currency?" by Menzie Chinn and Jeffrey Frankel. This paper explores whether the dollar might eventually follow the precedent of the pound and cede its status as leading international reserve currency. They argue that, unlike ten years ago, there now exists a credible competitor: the euro. The paper econometrically estimates determinants of the shares of major currencies in the reserve holdings of the world's central banks. Significant factors include: size of the home country, inflation rate (or lagged depreciation trend), exchange rate variability, and size of the relevant home financial center (as measured by the turnover in its foreign exchange market). Network externality theories would predict a tipping phenomenon. Indeed the authors find that the relationship between currency shares and their determinants is nonlinear, but changes are felt only with a long lag. The advent of the euro interrupts the continuity of the historical data set. So they estimate parameters on pre-1999 data, and then use them to forecast the EMU era. The equation correctly predicts a (small) narrowing in the gap between the dollar and euro over the period 1999-2004. Whether the euro might in the future rival or surpass the dollar as the world's leading international reserve currency appears to depend on two things: (1) do the United Kingdom and enough other EU members join euroland so that it becomes larger than the US economy, and (2) does US macroeconomic policy eventually undermine confidence in the value of the dollar, in the form of inflation and depreciation. What they learn about functional form and parameter values helps us forecast, contingent on these two developments, how quickly the euro might rise to challenge the dollar. Under two important scenarios – the remaining EU members, including the UK, join EMU by 2020 or else the recent depreciation trend of the dollar persists into the future – the euro may surpass the dollar as leading international reserve currency by 2022.

### *Section Three: Theoretical Perspectives on Current Account Sustainability and Adjustment*

This Section contains three papers by Maurice Obstfeld and Kenneth Rogoff; Hamid Faruquee , Douglas Laxton, Dirk Muir, and Paolo Pesenti; and by Aart Kraay and Jaume Ventura that draw upon and apply economic theory and, in the first two papers, careful calibration to offer valuable and novel insights into the issues of current account sustainability and adjustment.

In, “The Unsustainable US Current Account Position Revisited,” Maurice Obstfeld and Kenneth Rogoff show that when one takes into account the global equilibrium ramifications of an unwinding of the US current account deficit, currently running at nearly 6% of GDP, the potential adjustment of the dollar becomes considerably larger than estimates from their previous papers. While global capital market deepening appears to have accelerated over the past decade, the paper argues that global capital market deepening turns out to be of only modest help in mitigating the dollar decline that will occur in the wake of global current account adjustment. Adjustments to large current account shifts depend mainly on the flexibility and global integration of goods and factor markets. Whereas the dollar’s decline may be benign as in the 1980s, they argue that the current conjuncture more closely parallels the 1970s, when the Bretton Woods system collapsed. Finally, the authors use the model to dispel some common misconceptions about what kinds of shifts are needed to help close the US current account imbalance. For example, faster growth abroad helps only if it is relatively concentrated in nontradable goods; faster productivity growth in foreign tradable goods will actually exacerbate the US adjustment problem.

In “Current Accounts and Global Rebalancing in a Multi-Country Simulation Model,” Hamid Faruquee , Douglas Laxton, Dirk Muir, and Paolo Pesenti use a sophisticated new open economy multi country simulation model to explore different scenarios for global current account adjustment. These scenarios are designed to highlight the potential risks of large current account imbalances. The paper also explores some possible solutions that may mitigate these risks by gradually reducing the magnitude of these global imbalances over time. The paper argues that the short-run output costs for the U.S. economy that would be associated with a sudden loss in appetite for U.S. assets are likely to be the same order of magnitude as a large credible fiscal consolidation that would make a significant contribution to reducing these imbalances over time and making both the US and world economy less susceptible to shocks. It also considers the effects of competition-friendly structural policies aimed at reducing distortions in the product markets in Europe and Japan. The analysis suggests that such policies could play a prominent role in reducing current account imbalances on a sustainable basis if they were associated with a sustained increase in growth and a permanent downward shift in the net foreign asset positions of these countries.

Finally, in, “The Dot-Com Bubble, the Bush Deficits, and the US Current Account,” Aart Kraay and Jaume Ventura present a novel theoretical model which attempts to link present international imbalances and the bursting of the global equity bubble in 2000. They argue that a surprising aspect of the current debate is that stock market movements and fiscal policy choices have been largely treated as unrelated events. Stock market movements are usually interpreted as reflecting exogenous changes



in perceived or real productivity, while budget deficits are usually understood as a mainly political decision. Their theoretical model is used to develop two alternative interpretations. Both are based on the notion that a bubble (the “dot-com” bubble) has been driving the stock market, but differ in their assumptions about the interactions between this bubble and fiscal policy. In one interpretation of the model – one that is by far the more persuasive to the editor of this volume , a change in investor sentiment leads to the collapse of the dot-com bubble and implies that budget deficits are a welfare-improving policy response to this change in investor sentiment. In another interpretation, expectations of future budget deficits lead to the collapse of the dot-com bubble which in turn allow a country to appropriate rents from foreign investors.