Chapter VII
International Reserves Accumulation:
Some Lessons from Asia

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ABSTRACT

This chapter examines the global implications from recent reserve accumulation in Asia. Advances in information technology and the closer integration of world markets have complicated economic policy making by increasing countries' vulnerability to capital account crises and introducing new channels of risk transmission. To safeguard against these developments, many countries accumulated unprecedented levels of international reserves. Current account deficits in some industrial countries have supported such reserve accumulation, in particular for Asian countries that have promoted export-led growth underpinned by competitive exchange rates. Asian economies have been willing to absorb the cost of reserve accumulation rather than adjusting their exchange rate levels. This strategy, however, has increased the likelihood of protectionist measures from abroad, which could lead to contractions in trade and output. Moreover, these dynamics may transition to a generalized real appreciation of the major Asian currencies, while mounting pressure for a reduction of the U.S. fiscal deficit to sustainable levels.

INTRODUCTION

The widespread application of new information technologies has revolutionized the way firms organize their activities, leading to a flattening of the corporate structure and dispersion of production activities worldwide. The unfolding of this process has facilitated the expansion in trade of goods and services, the creation of free trade zones like the North American Free Trade Area (NAFTA), common currency areas like the Eurozone countries, and the underpinning of the drive to liberalize capital accounts in order to aid the free flow of financial capital. In short, information technology has stimulated the process of globalization, increasing the connectedness and interdependence (i.e., integration) of global trade and financial markets.

The process of globalization is envisaged to aid economic development by allowing for specialization, the efficient allocation of productive resources, and reduced costs through competition. However, these positive aspects come with an increase in potential economic vulnerability. As economies have become more reliant on trade and private capital flows, they have also become more vulnerable to the volatility of such flows. The high degree of economic integration means that problems in any one country that appear isolated at first may trigger a widespread regional financial crisis, as seen in the Asian crisis of 1997 to 1998, or even a global one, as seen in the emerging market turmoil of 1998 to 2001. Therefore, the advance of information technology and its impact on the world economy has complicated the decisions of economic policy makers, with the increased vulnerability to capital account crises and new channels of risk transmission leading countries to seek innovative strategies for risk management and prevention.

One risk mitigation strategy that many countries have undertaken is to accumulate international reserves. The economic disruption caused by the Asian crisis of 1997 to 1998, for example, led policy makers to believe that additional reserve holdings should be acquired, regardless of acquisition or carry costs. In the 10 years following the crisis, total global reserves tripled to $4,234 billion at the end of 2005. Developing countries hold 68.5% of global reserves and developing Asia alone accounts for 44% of global reserves, a level that surpasses that for all developed countries. The crisis has also been a catalyst for proponents of the Asian Monetary Fund (AMF), which would aim at providing supplementary foreign exchange resources to members in crisis periods so as to avoid potential systemic regional implications from contagion effects.

The need for effective reserve management policies by governments is thus the indirect result of the widespread adoption of information technology and the integration of world markets. Several studies have examined the dynamics of the currency and financial crises, as well as their macroeconomic consequences (Corsetti, Pesenti, & Roubini, 1998a, 1998b). However, only a few studies have analyzed Asia's macroeconomic policies following the turbulent period in relation to reserve management and the resulting substantial accumulation of international reserves. The present chapter intends to fill this gap. Namely, it focuses on the implications of macroeconomic behavior and reserve management policies after the evolution of the crisis, and draws lessons that policy makers can take forward as the 21st century unfolds.

Following a brief overview of the economic setting, we first examine the theoretical underpinnings of reserve accumulation through the use of a buffer stock model of reserve demand and find that reserve levels should be, inter alia, dependent on the level of government expenditures and debt. We then add these two variables to a standard estimating equation for reserve holdings, which typically specifies reserves as being dependent on economic scale factors, international transactions and volatility, and measures of openness. Using annual data from 24 developing countries from 1990 to 2002, we find that government spending and debt are still highly significant, and conclude that further development of theoretical buffer stock models might prove useful. However, the process outlined above still underpredicts reserve demand for Asian countries when applied out of the sample in 2003 to 2005. Consequently, we examine other hypotheses for reserve demand

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