
Trade imbalance in international message telephone services

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An econometric model is estimated to identify determinants of trade imbalance in international message telephone services markets. Results indicate that asymmetric market structure is important in explaining bilateral market imbalances for high income country pairs. For low and high income country pairs, GDP per capita is the dominant cause of traffic imbalances. The findings suggest that telecommunications liberalization policies are effective in reducing distortions in international traffic flows and settlement payments. However, liberalization should be accompanied by developmental programmes that enhance income per capita and telecommunications network investment in developing countries. Such programmes may be effective in providing a more equitable distribution of the gains from telecommunications reform across countries.

I. INTRODUCTION

Telecommunications traffic is an important production input for information intensive sectors, and its economically efficient delivery provides a basis for competitive advantage. Between 1986 and 1995 world international message telephone services (IMTS) traffic increased by 12.9 per cent per annum, with total retail revenues of 53 billion United States Dollars (US\$) in 1995 (International Telecommunications Union (ITU) 1997a). Such services are traditionally jointly provided by publicly-owned monopolies who connect their local networks to designated international gateways. Bilateral market cost sharing agreements between countries are arranged through the international accounting rate system. The accounting rate is the basic 'unit of account' from which international settlement payments are calculated. A carrier's accounting rate share, the settlement rate, determines the amount the carrier must pay to access another country's network. When settlement rates are equal for outgoing and incoming

calls, and outgoing is greater (less) than incoming traffic, the home country is a net importer (exporter) of telephone traffic and makes (receives) a settlement payment to (from) the foreign country. In 1995, the amount paid by carriers to settle IMTS traffic imbalances was USD28 billion (ITU, 1997a).

In the immediate post-war period the accounting rate system provided a reasonable basis for international telecommunications pricing and carrier settlements. Bilateral traffic flows were generally balanced and retail prices (collection rates) uniform. This stable environment began to change in the 1980s with the erosion of natural monopoly through rapid technological change, and the realization that competition and private ownership are more likely to increase efficiency and provide lower prices (Oum and Zhang, 1995; Snow, 1995; Madden and Savage, 1997; Spiller and Cardilli, 1997; Waverman and Sirel, 1997). The 1984 AT&T divestiture and privatization of British Telecom led the movement away from the traditional model of monopoly supply by stated-owned carriers. By

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