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Is China or India more financially open?☆

Guonan Ma [a], Robert N. McCauley [b,*]

[a] BIS Asian Office, Hong Kong Special Administrative Region
[b] Monetary and Economic Department, Basel, Switzerland

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A B S T R A C T

Measures of de facto capital account openness for China and India raise the question whether the Chinn-Ito measure of de jure capital account openness is useful and whether the Lane-Milesi-Ferretti measure of de facto openness ranks the two countries correctly. We examine eight dimensions of de facto capital account openness. Four measures based on onshore and offshore prices test the *law of one price*. Among the four quantity measures, we introduce two new ones into the debate: the openness of *consolidated* banking systems and the internationalization of currencies. Generally, the measures show both economies becoming more financially open over time. In six of the eight dimensions, the Indian economy appears to be more open financially. Nevertheless, policy continues to segment onshore and offshore markets in both and policymakers face challenges in further financial integration.

1. Introduction

The world has a huge stake in China's and India's integrating their finances into global markets. Any mishap akin to the 1990s' Asian financial crisis would hurt the world economy. These economies are travelling a road lined with memorials to victims of previous accidents.

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* Corresponding author. +41 76 350 8882; fax: +41 61 280 8100.
E-mail address: robert.mccauley@bis.org (R.N. McCauley).

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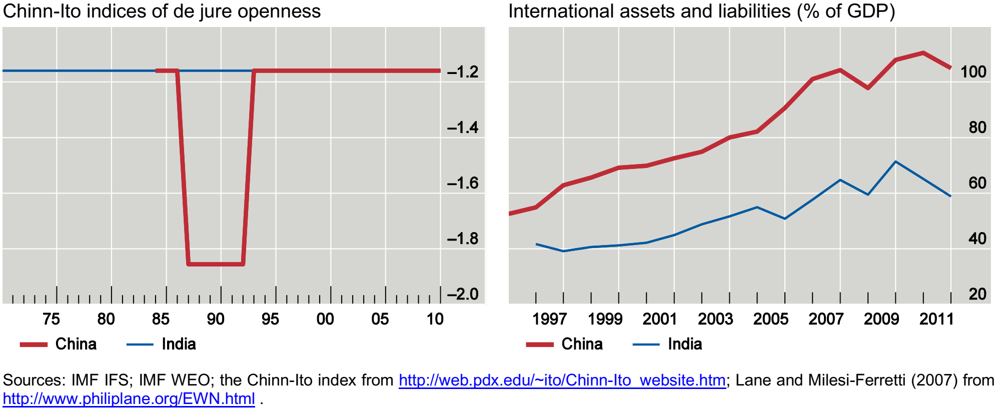

Fig. 1. Capital account openness of China and India: de jure and de facto measures.

The role of capital inflows in enabling a credit and asset price boom and bust in the United States and the interest-rate and balance-sheet responses of major central banks have renewed interest in capital controls.[2] Recent research places them in a broad policy context.[3]

Much analysis uses the Chinn and Ito (2008) index, an interval, de jure measure derived from four on-off variables in the IMF *Annual Report on Exchange Arrangements and Restrictions* (Fig. 1, left-hand panel). For de facto openness, "the most widely used measure" (IMF (2010, p 51)) is the ratio of the sum of international assets and liabilities to GDP (Lane and Milesi–Ferretti (2003, 2007), Fig. 1, right-hand panel).

We question whether these measures appropriately track the progress and relative position of China and India on the road to international financial integration.[4] We disagree with Chinn-Ito that China and India are both stalled on the road and agree with Lane-Milesi-Ferretti that both are moving forward, that is, opening up. Like Gupta Sen (2010), Patnaik and Shah (2012, p 195), rightly criticize Chinn-Ito for "not adequately captur[ing] the gradual easing of capital controls, since it continues to give the same score unless all restrictions [in any dimension] are removed". Moreover, we question whether Chinn-Ito (tied) or Lane-Milesi-Ferretti (China ahead) gets their relative position right.

We reach these conclusions by gathering in one place six existing de facto measures and by proposing two new measures. These new measures of *internationalization of consolidated banking systems* and *currency internationalization* both use BIS data. For our four price-based measures, we analyse average deviations from the law of one price. For most of the measures, we offer cross-country benchmarks as well as bilateral comparisons.

We advance three hypotheses, two in the time series (ts) and one in the cross-section (xs):

- Hts1: Lane-Milesi-Ferretti is right: both China and India are opening.
- Hxs1: Chinn-Ito and Lane-Milesi-Ferretti are wrong: India is more open than China.
- Hts2: Both China *and* India remain some distance from financial openness.

Sections 2–9 present evidence on each dimension. Sections 2–5 measure integration based on onshore and offshore prices: currency forwards, money, bond and equity markets. Sections 6–9 compare the links between investment and savings flows, ratios of external positions and flows to activity, foreign bank shares and currency internationalization. Section 10 assembles the measures; Section 11 concludes.

[2] See Bernanke et al. (2011); on capital controls, see Ostry et al. (2010, 2011a, b) and Magud et al. (2011).
[3] See Glick and Hutchison (2009), Aizenman et al. (2010, 2011), Kohli (2011), Hutchison et al. (2012) and Patnaik and Shah (2012).
[4] See Lane and Schmuckler (2007) and Aizenman and Sengupta (2011).