Appendix
Data and Definitions

Currency Crisis Index

The index is a weighted average of exchange rate and reserve changes, with weights such that the two components of the index have equal conditional volatilities. Since changes in the exchange rate enter with a positive weight and changes in reserves have a negative weight attached, readings of this index that were three standard deviations or more above the mean were cataloged as crises. For countries in the sample that had hyperinflation, the construction of the index was modified. While a 100 percent devaluation may be traumatic for a country with low to moderate inflation, a devaluation of that magnitude is commonplace during hyperinflations. A single index for the countries that had hyperinflation episodes would miss sizable devaluations and reserve losses in the moderate inflation periods, as the historic mean is distorted by the high-inflation episode. To avoid this, we divided the sample according to whether inflation in the previous six months was higher than 150 percent and then constructed an index for each subsample. Our cataloging of crises for these countries coincides fairly tightly with our chronology of currency market disruptions. Eichengreen, Rose, and Wyplosz (1995) also include interest rates in this index; however, our data on market-determined interest rates for developing countries does not span the entire sample.

The Indicators

Sources include the IMF's *International Financial Statistics* (*IFS*), the International Finance Corporation's (IFC) Emerging Market Indicators, and the

World Bank's World Development Indicators. When data were missing from these sources, central bank bulletins and other country-specific sources were used as supplements. Unless otherwise noted, we used 12-month percentage changes.

M2 multiplier: the ratio of M2 to base money (*IFS* lines 34 plus 35) divided by *IFS* line 14.

Domestic credit/nominal GDP: *IFS* line 52 divided by *IFS* line 99b (interpolated). Monthly nominal GDP was interpolated from annual or quarterly data.

Real interest rate on deposits: *IFS* line 601, monthly rates, deflated using consumer prices (*IFS* line 64) expressed in percentage points.

Ratio of lending rate to deposit rate: *IFS* line 60p divided by *IFS* line 601 was used in lieu of differentials to ameliorate the distortions caused by the large percentage point spreads observed during high inflation. In levels.

Excess real M1 balance: M1 (*IFS* line 34) deflated by consumer prices (*IFS* line 64) less an estimated demand for money. The demand for real balances is determined by real GDP (interpolated *IFS* line 99b), domestic consumer price inflation, and a time trend. Domestic inflation was used in lieu of nominal interest rates, as market-determined interest rates were not available during the entire sample for a number of countries; the time trend (which can enter log-linearly, linearly, or exponentially) is motivated by its role as a proxy for financial innovation and/or currency substitution. Excess money supply (demand) during precrisis periods (*mc*) is reported as a percentage relative to excess supply (demand) during tranquil times (*mt*)—that is, $100 \times (mc - mt)/mt$.

M2 (in US dollars)/reserves (in US dollars): *IFS* lines 34 plus 35 converted into dollars (using *IFS* line ae) divided by *IFS* line 1L.d.

Bank deposits: *IFS* line 24 plus 25.

Exports (in US dollars): *IFS* line 70.

Imports (in US dollars): *IFS* line 71.

Terms of trade: the unit value of exports (*IFS* line 74) over the unit value of imports (*IFS* line 75). For those developing countries where import unit values (or import price indices) were not available, an index of prices of manufactured exports from industrial countries to developing countries was used.

Real exchange rate: based on consumer price indices (*IFS* line 64) and defined as the relative price of foreign goods (in domestic currency) to the price of domestic goods. If the central bank of the home country pegs the currency to the dollar (or deutsche mark), the relevant foreign price index is that of the United States (or Germany). Hence for all the European countries the foreign price index is that of Germany, while for all the other countries consumer prices in the United States were used. The trend was specified as, alternatively, log-linear, linear, and exponential; the best fit among these was selected on a country-by-country basis. Deviations from trend during crisis periods (*dc*) were compared with the deviations during tranquil times (*dt*) as a percentage of the deviations in tranquil times (i.e., $100 \times (dc - dt)/dt$).

Reserves: *IFS* line 1L.d.

Domestic-foreign interest rate differential on deposits: monthly rates in percentage points (*IFS* line 601). Interest rates in the home country are compared with interest rates in the United States (or Germany) if the domestic central bank pegs the currency to the dollar (or deutsche mark). The real interest rate is given by $100 \times [(1 + i_t)p_t / p_{t+1-1}]$.

Output: for most countries, industrial production (*IFS* line 66). However, for some countries (the commodity exporters) an index of output of primary commodities is used (*IFS* line 66aa).

Stock prices (in dollars): IFC global indices are used for all emerging markets; for industrial countries the quotes from the main bourses are used.

Overall budget balance/GDP: consolidated public-sector balance as share of nominal GDP (World Bank Debt Tables).

Current account balance a share of GDP: (World Bank, World Development Report database available in CD ROM).

Current account balance a share of investment: current account divided by gross investment (World Bank, World Development Report database available in CD ROM).

Short-term capital inflows: Short-term capital flows as a percent of GDP, (World Bank, World Debt Tables, database available in CD ROM).

Foreign direct investment (FDI): FDI as a share of GDP (World Bank, World Debt Tables, database available in CD ROM).

General government consumption/GDP: General government consumption, national income accounts basis as a percent of GDP, annual growth rate (World Bank, World Development Report database available in CD ROM).

Central bank credit to the public sector/GDP: Annual growth rate (World Bank, World Development Report database available in CD ROM).

Net credit to the public sector/GDP: Annual growth rate (World Bank, World Development Report database available in CD ROM).