

Discussion of Jeffrey Frankel's Systematic Managed Floating

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Scope

Jeff's paper proposes to define an intermediate arrangement, "systematic managed floating," as one where the central bank regularly responds to changes in total exchange market pressure by allowing some fraction to be reflected as a change in the **exchange rate** and the remaining fraction to be absorbed as a change in **foreign exchange reserves**.

Plan of Discussion

1. Scope of the paper
2. Basics of FX market intervention mechanism
3. Examples of “currency war” episodes
4. A general-point critic

Challenges

FX Market intervention is one of **several tools and targets** of monetary policy.

FX systematic interventionists is a policy that lies between hard peg and pure unconditional float.

There is however no simple way to characterize the many-tool, multiple target package of a **monetary regime** by a reduced form concept.

Results

Two measures of exogenous external shocks are used:

(i) for commodity-exporters, a country-specific index of global prices of the export commodities

(ii) for other Asian emerging market economies, the VIX.

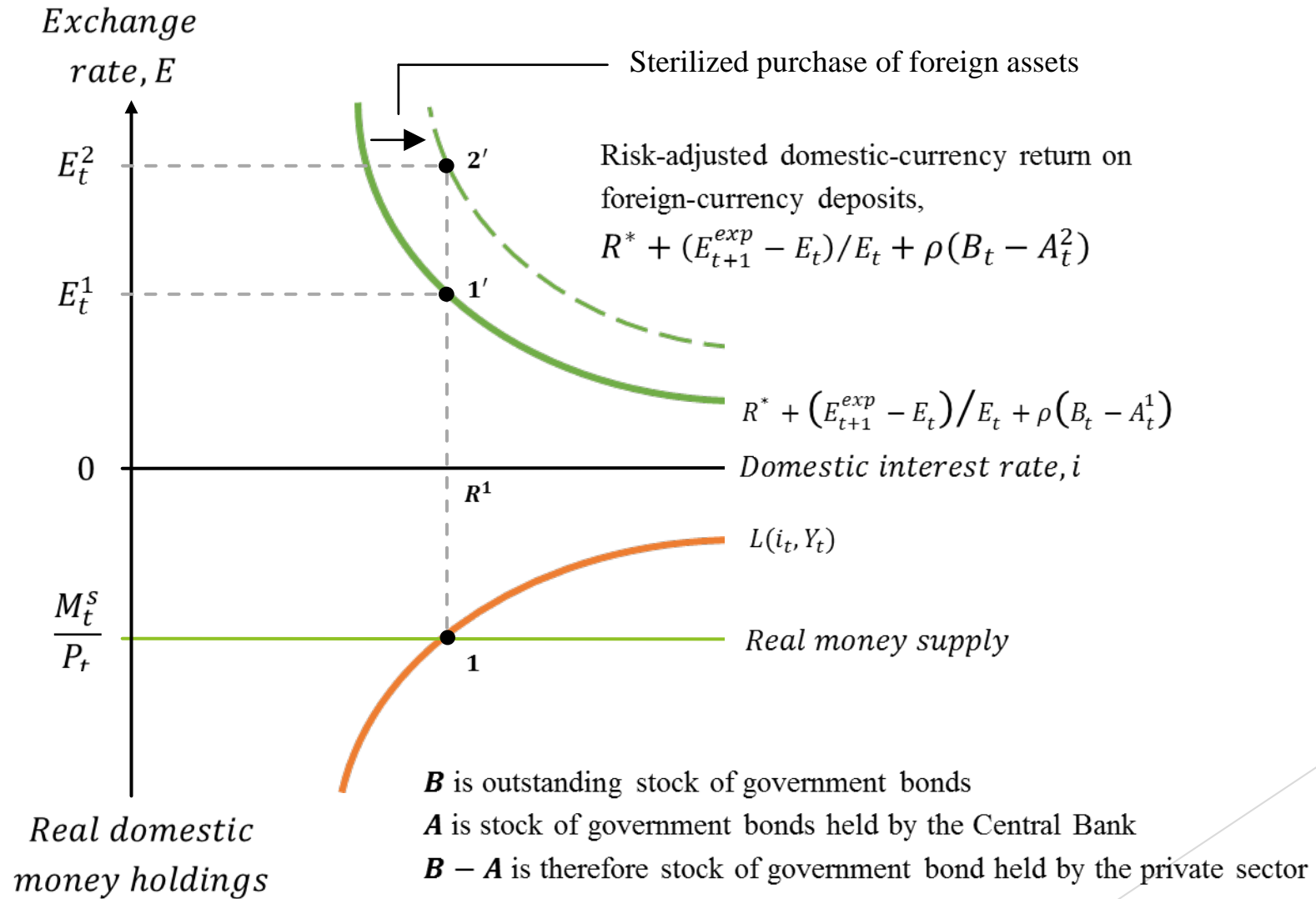
In regressions to test effects on real exchange rates, Jeff finds that positive.

External shocks tend to cause:

- (1) Real appreciation for most systematic managed-floaters;
- (2) More strongly so for pure floaters;
- (3) And, not at all for most firm peggers

Basics of the of FX Market Intervention

Figure 5B: Sterilized Foreign Exchange Market Intervention



Forward Guidance and Signaling

In the absence of the portfolio balance effect, sterilized intervention cannot move the exchange rate. The effectiveness of the current foreign exchange market intervention depends also on the commitment of the central bank to do so in the future. Therefore, if

$$E^{\text{exp}}$$

is expected to be depreciated in the future, through credible “forward guidance” aided by future interventions will be more depreciated as well

Sterilized FX Intervention

Sterilized FX intervention is effective if

(1) foreign and domestic assets are imperfect substitutes;

(2) the fx market intervention signals that the central bank will pursue future interventions. If the signal is effective in the eyes of market participants the future expected exchange rate changes and this induces the current exchange rate to change as well.

The signalling mechanism is akin to “forward guidance” whereby the central bank announces in a credible fashion the future path of the policy rate.

Reduced VIX and Capital Flows to Emerging Markets

The VIX is the Chicago Board Options Exchange Market Volatility Index. It is a measure of the implied volatility of S&P500 index options.

Asymmetry of CB fx mkt intervention rules

Under appreciating pressures there is no limit to CB buying foreign assets (because a monopoly of creating domestic currency).

Under depreciating pressures limit to CB selling foreign assets are set by the previously acquired international reserves.

Looking at volatility and levels of the foreign currency value in the reaction function of CB, not recognizing that CB reacts differently to a rise and the fall in the fx currency value biases the the estimated policy reaction function!

Measuring Free Capital Mobility

The real interest parity says that differences in real interest rates (in terms of goods and services that are earned or forgone when lending or borrowing) between countries are equal to the expected change in the value/price/cost of goods and services between countries.

How much the Ems deviated from the parity?

This is a measure of barriers to capital (Im)mobility

Proposed Measure of International Financial Integration

$$1 + r_t^{US} \text{ vs } (1 + r_t^i) \frac{q_{i/US,t+1}}{q_{i/US,t}},$$

Where i stands for Israel, Canada, Germany and the United Kingdom; and q stands for the real exchange rate *vis a vis* the US dollar:

$$q_{i/US,t}^t = E_{i/US,t} \frac{P_{US,t}}{P_{i,t}},$$

Jeff's Test

Compute for each country the **correlation** of the change in the foreign exchange value of the currency (in percent) with the change in reserves (as a percentage of the monetary base).

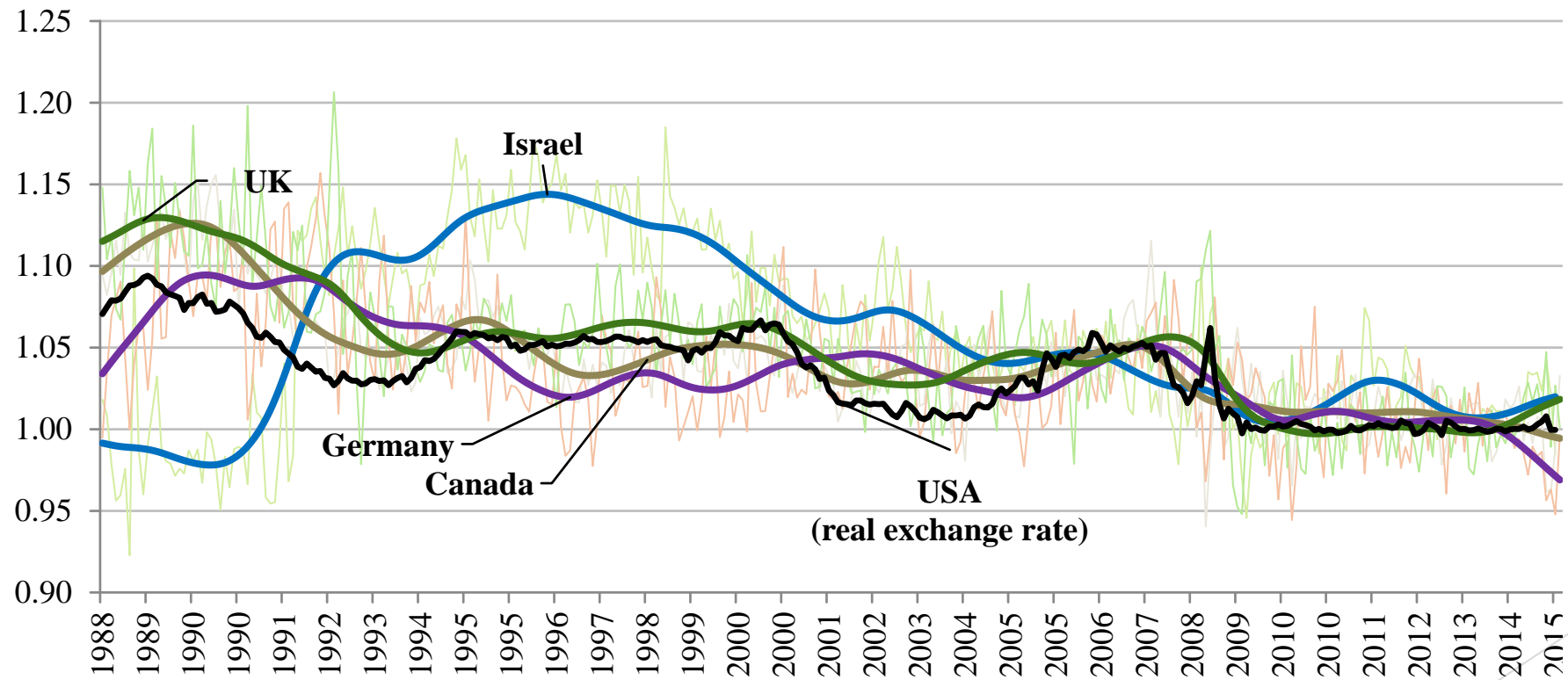
If the correlation is positive and high enough to clear some threshold it is a systematic managed floater. At one extreme, a truly fixed exchange rate will show a correlation of zero, because the exchange rate by definition never changes. At the other extreme, a purely floating exchange rate will again show a coefficient of zero, because reserves by definition never change. But it is not just the residents of fixed and floating corners that will fail to meet this criterion.

US Monetary Tightness

Responses to the “taper tantrum” of May-August 2013, when Federal Reserve announced the intention to begin phasing down US quantitative easing by the end of the year, which produced an immediate rise in US interest rates and a reversal of EM capital flows.

Singapore mostly intervened while India mostly took adverse shock as a change in the exchange rate, that is, a depreciation, as did the Philippines.

Gross Real Interest Rate Adjusted for Real Exchange Rate Changes (US benchmark)



Exchange rate regime tested over time

Jeff's systematic-intervention test involves only **contemporaneous changes** in the foreign exchange value of the currency with the change in reserves.

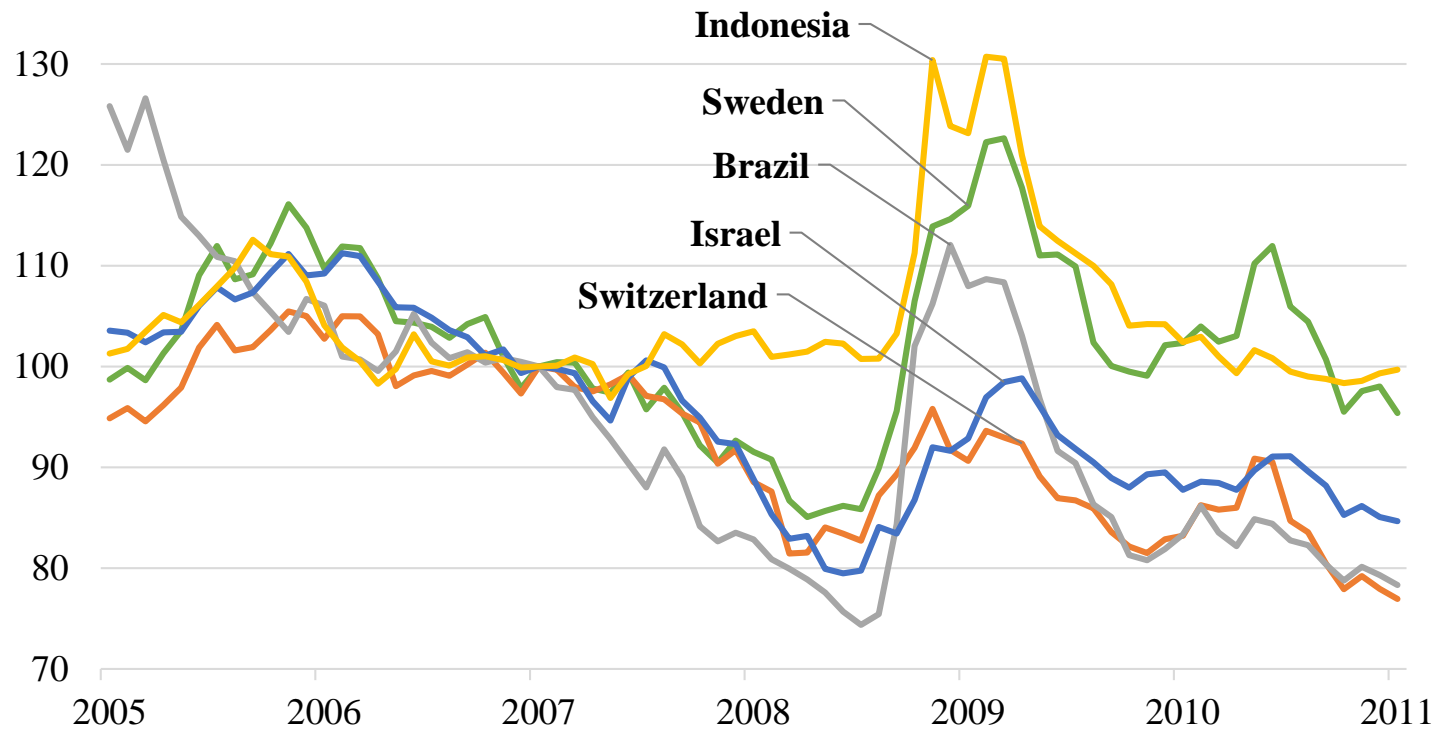
They ignore **future market expectations** of changes in the foreign exchange value of the currency and **future expectations of monetary and exchange rate policy**.

The background features abstract, overlapping green geometric shapes in various shades, including light lime green, medium green, and dark forest green. The shapes are primarily triangles and polygons, creating a dynamic, layered effect. The text is centered in the white space between these shapes.

Examples of FX Market - Intervention “Currency War” Episodes

Non-liquidity trap open economies: The 2009 "Currency War"

Nominal Exchange Rate of Various Countries that Engaged in the "Currency War" : Israel, Switzerland, Sweden, Brazil and Indonesia (2007=100)

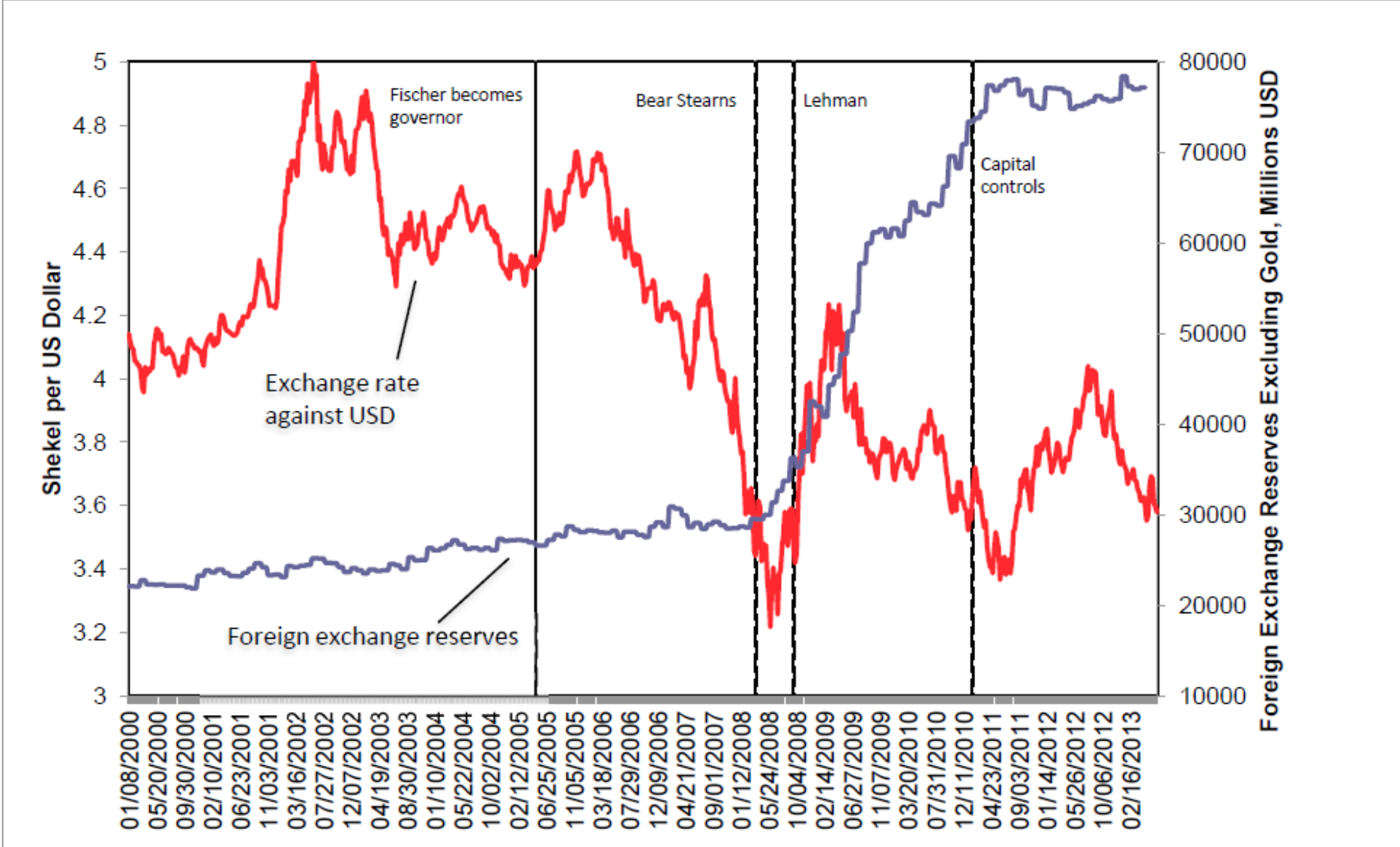


Note that if the risk premium does not change the sterilized foreign-exchange-market intervention cannot affect the exchange rate.

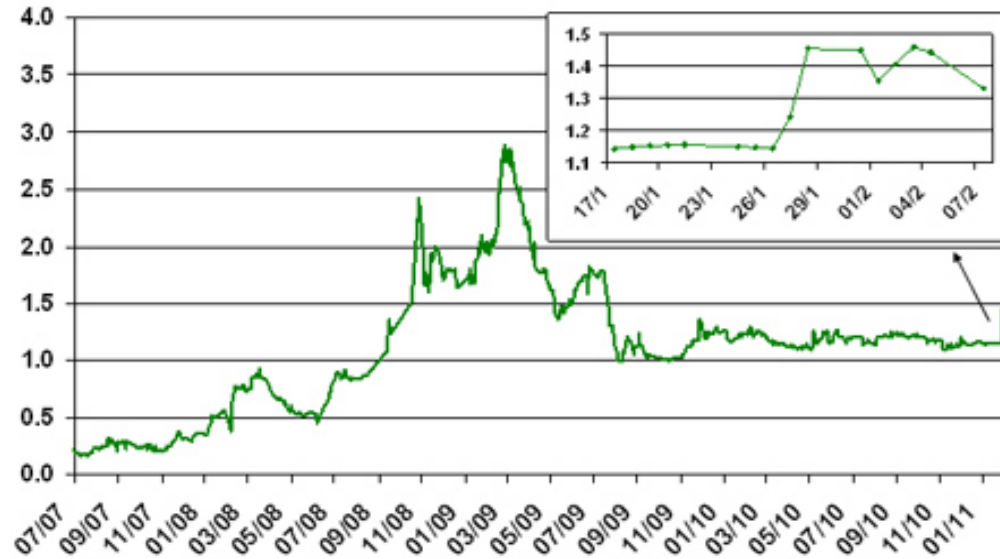
Israel's Special FX Intervention after the 2008 global trade shock

Israel's fx intervention in the wake of the 2008 global crisis, aimed to boost up aggregate demand, with the help of an enlarged tool kit for central bank policy.

Some Data from Israel

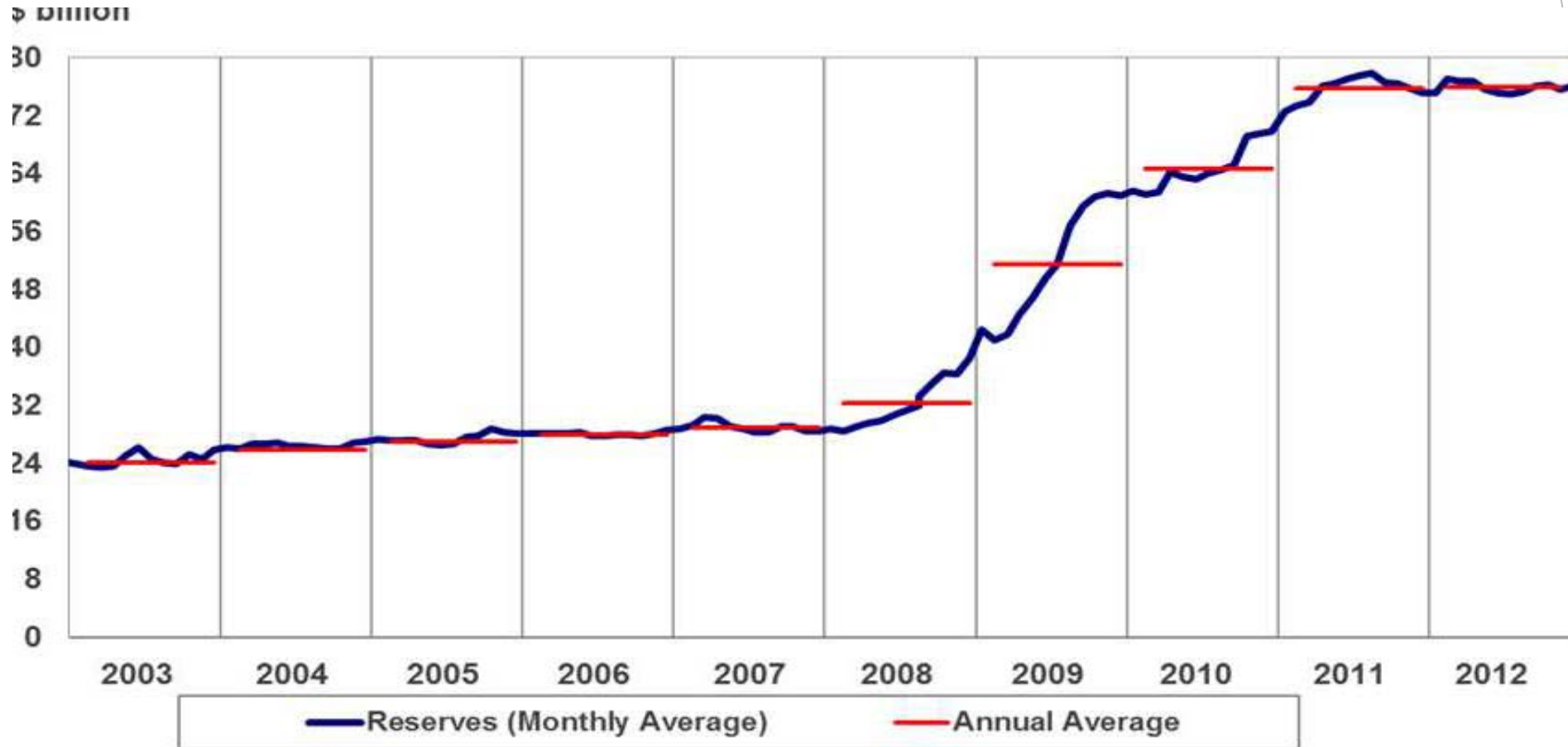


Financial Markets during Israel's 2009 Foreign-Exchange Market Intervention

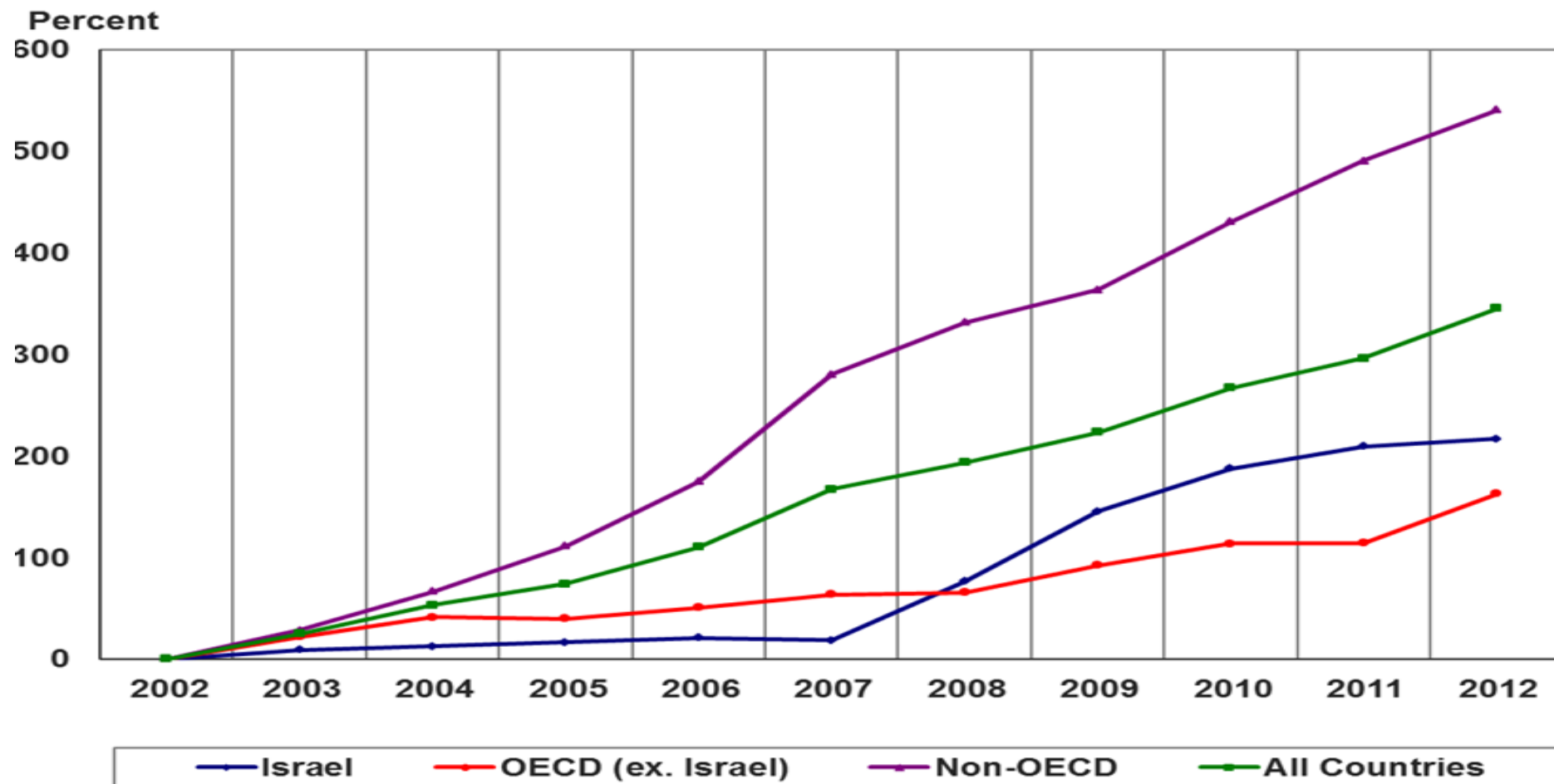


A **credit default swap (CDS)** is a financial swap agreement that the seller of the CDS will compensate the buyer (usually the creditor of the reference loan) in the event of a loan default (by the debtor) or other credit event.

Israel Foreign Exchange Reserves,



International Comparison of reserve accumulation



Switzerland's Story: The Reaction to the Euro-crisis

**Spring 2010—Greece debt default
Temporary (2 months) intervention
contained the franc appreciation only
temporarily, with subsequent
appreciation.**

Obstfeld multiple equilibrium means that the CB validates the expectations on either one of the two equilibria by its interest/money policy.

Swiss SNB

**August 2011—Italy's spread hike
SNB set 1.20 (Frank per euro) as a floor in
early September.**

**It worked. Interpretation is that the
announcement of the floor “killed” Obstfeld's
second appreciation equilibrium.**

Very little actual fx intervention.

Switzerland's Story (continued)

Summer 2012--Another round of euro periphery pressure.

FX intervention to prevent franc appreciation.

Pressure ended with Draghy's "whatever it takes" speech.

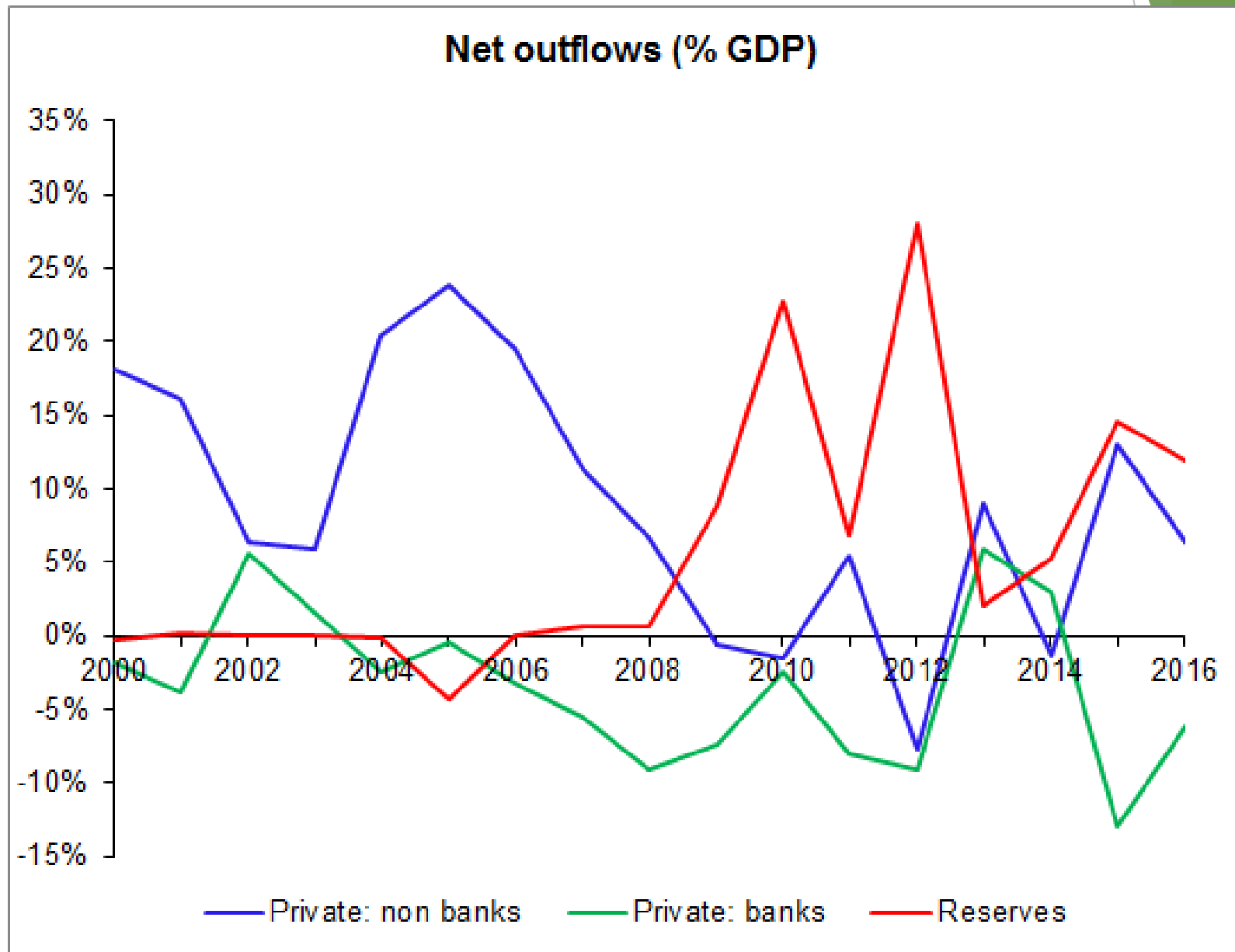
Dec 2014-2015--

ECB prepared the QE, sizable FX intervention to prevent franc appreciation

SNB abandons the 1.20 floor in January

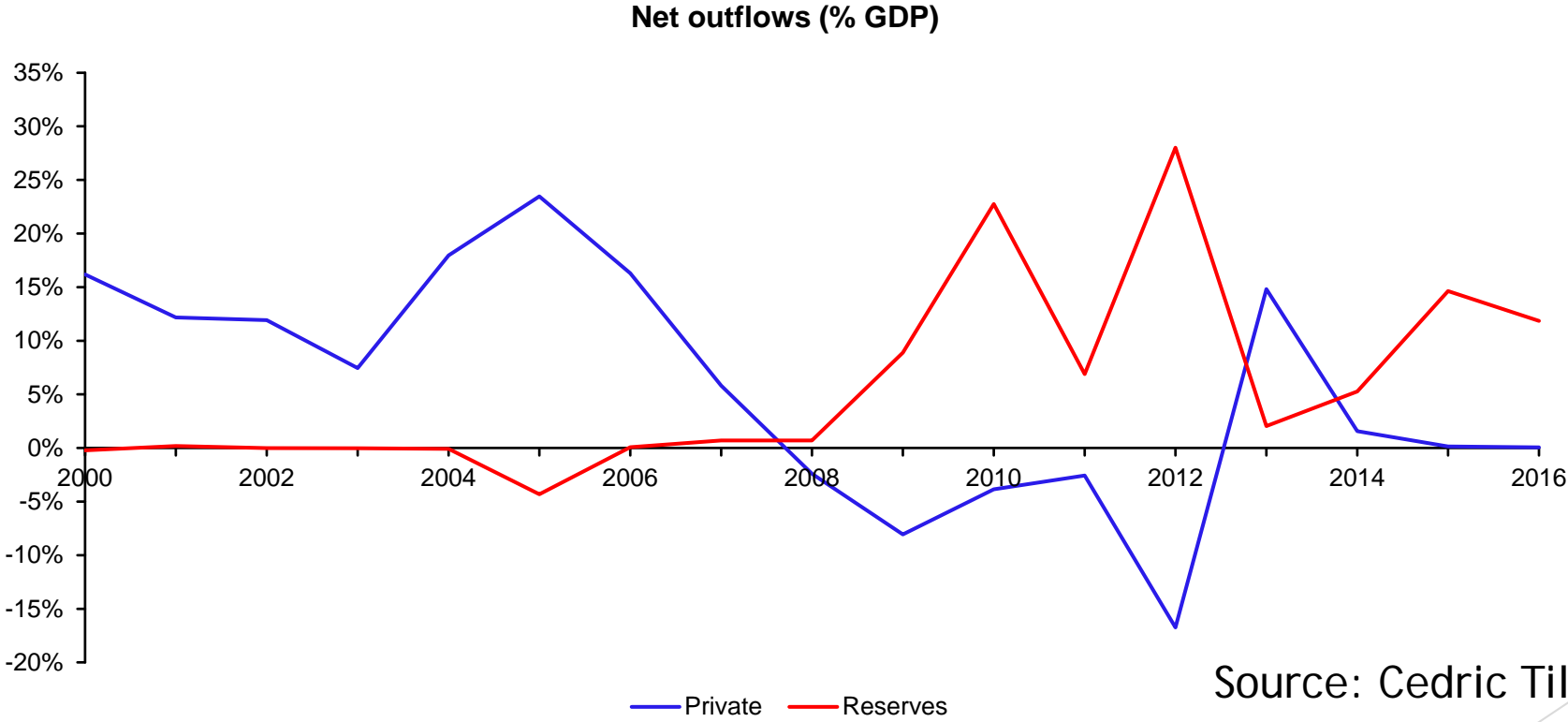
**Switzerland's Current account
Intl Reserve accumulation amount to
most of the current account surplus—
10 percent of Switzerland GDP.**

For the Swiss International-reserves accumulation the focus is on the charts with net flows splitting the private flows between banks and other, to get the chart below



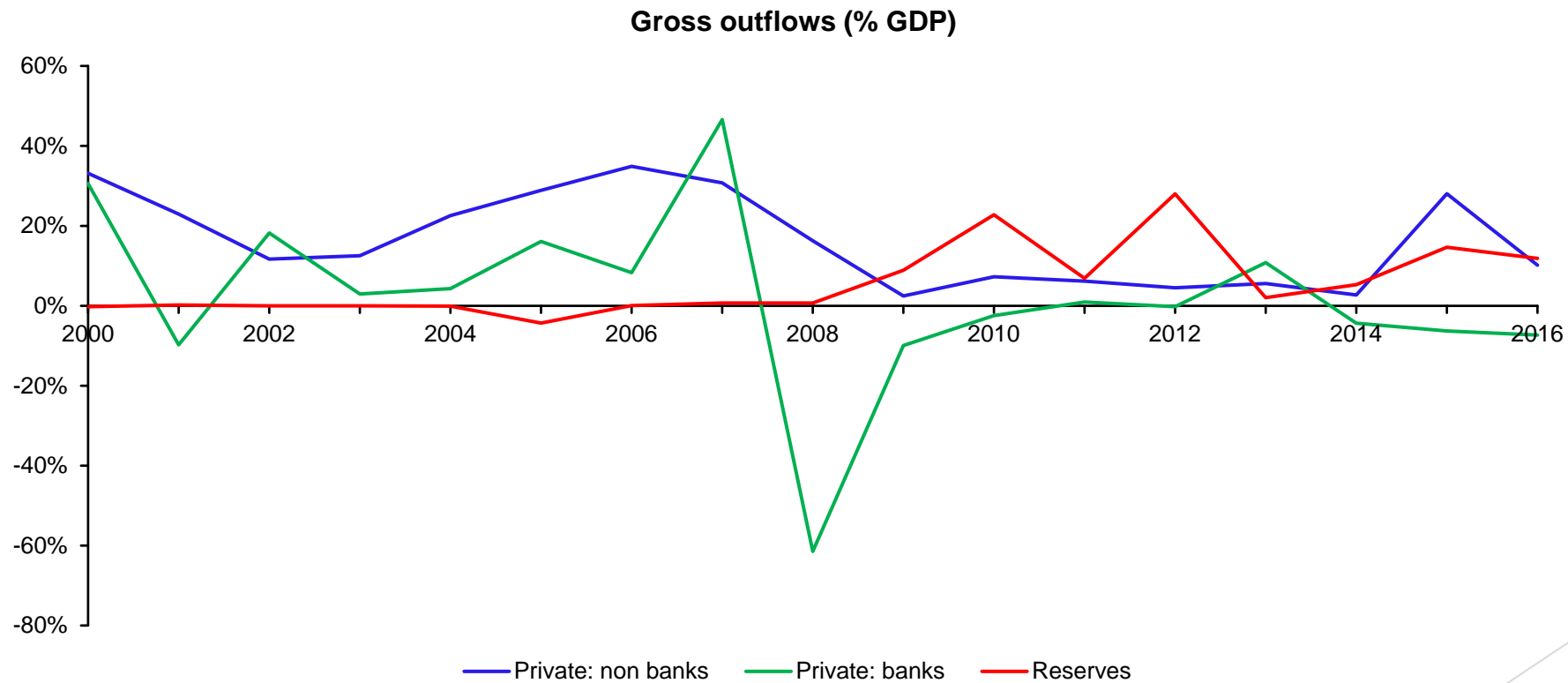
For reserves accumulation the focus is on the charts with net flows splitting the private flows between banks and other, to get the chart below.

Swiss Net Outflows and International Reserves



Gross Outflows

Source: Cedric Tille



For the SNB's balance sheet, we see no shift between domestic bonds and foreign bonds among assets. That is, the accumulation of reserves through FX intervention is **not sterilized** and is this mirrored by higher bank reserves on the liability side, instead of lower domestic bonds on the asset side.

See the next two charts.

General-Point Critic

Central bank has two tools:

1. buying/selling assets (domestic and foreign).

As long as foreign and domestic assets are substitutes, the effect of monetary by intervention in the fx market or in the domestic market will affect the exchange rate value and domestic bonds price similarly. In this sense intervention in the FX market and the domestic bond market are not distinguishable.

2. CB regulation of capital flows and prudential policy.

To characterize the foreign exchange policy by changes in reserves (tool) and the value of the exchange rate (only one of the targets) and keep in the “dark” all other measures of the monetary policy and targets would not characterize uniquely the monetary regime.

Jeff's reduced form classification of "systematic interventionistic CB" is not easily distinguishable from "episodic interventionistic CB" because it lumps together in the cross country panel countries that although are different in the path of reserves and currency value changes they might have changes in domestic bond so that the exchange rate value and changes in bond prices are very different one from another. That is Jeff's reduced-form test is not a test of differences in monetary regimes.

Thank You!

