



## A Balanced View of Foreign Exchange

by Ghene Faulcon

### Balance of payments<sup>1</sup>

Just as General Electric or any company releases financial statements on a regular basis, so do countries. For a nation, the Balance of Payments accounts for all of its economic activity. Just as a cash flow statement details the flow of assets, so the balance of payments details the cross border flow of goods and services as well as the assets used to pay for them.

### Current account

The current account measures the things – both goods and services – that we, as a country, buy and sell from other countries. It also includes flows not associated with transactions such as the income generated by owning foreign assets and government aid to foreign countries. Table 1 shows the US current account for 2004. It is evident that trade in goods and services dominates the current account. As a result current account and trade balance are usually used synonymously.

Current Account <sup>2</sup>	\$millions
<b>Exports of goods and services and income receipts</b>	<b>1,530,975</b>
Exports of goods and services	1,151,448
Goods, balance of payments basis	807,536
Services	343,913
Income receipts	379,527
<b>Imports of goods and services and income payments</b>	<b>-2,118,119</b>
Imports of goods and services	-1,769,031
Goods, balance of payments basis	-1,472,926
Services	-296,105
Income payments	-349,088
<b>Unilateral current transfers, net</b>	<b>-80,930</b>
US Government grants	-23,317
US Government pensions and other transfers	-6,264
Private remittances and other transfers	-51,349
<b>Total Current Account</b>	<b>-668,047</b>

### Capital and financial accounts

Now that we have measured the trade, we must also measure the other side of the transaction, the assets used to pay for that trade, which is done by the capital and financial accounts. As can be seen in table 2, the change in the net foreign asset position (the US owned foreign assets minus foreign owned US assets) represents the great majority of the capital and financial accounts<sup>3</sup>.

Capital and Financial Account	\$millions
<b>Capital Account</b>	<b>-1648</b>
Capital account transactions, net	-1,648
<b>Financial Account</b>	<b>584,946</b>
US-owned assets abroad, net change	-855,509
US official reserve assets, net change	2,805
Other US Government assets, net change	1,215
US private assets, net change	-859,529
Foreign-owned assets in the United States, net change	1,440,105
Foreign official assets in the United States, net change	394,710
Other foreign assets in the United States, net change	1,045,395
<b>Total Capital and Financial Accounts</b>	<b>582,948</b>
<b>Statistical Discrepancy</b>	<b>85,126</b>

### Why they should balance

There is also one other term in the balance of payments. Though the balance of payments should balance, there are difficulties in counting all of the cross-border transactions that occur. There are also other reasons that the balance of payments may not balance on a temporary basis, but over a long term it must balance on average. All of this is rolled up into the statistical discrepancy reported above.

<sup>1</sup> A more complete discussion of the balance of payments can be found in the IMF's Balance of Payments Textbook, <http://www.imf.org/external/np/sta/bop/BOPtex.pdf>

<sup>2</sup> Data from the US Department of Commerce, Bureau of Economic Analysis website <http://www.bea.gov>. The latest Balance of Payments data can be found at <http://www.bea.gov/bea/newsrel/transnewsrelease.htm>

<sup>3</sup> The sign of the flows represents the cash flow, therefore increases in US owned foreign assets represents a US entity giving US dollars for that asset and is recorded as a negative cash flow in the financial account.

We can also look at the country's economic activity in a different light to give a more concrete understanding of the balance<sup>1</sup>. The total production or GDP (Y) of a country is split among four uses. It can either be private consumption (C), government consumption (G) investment in machinery and buildings (I), or net exports (X - M):

$$Y = C + I + G + (X - M)$$

That is the disposition of the production, but what about the proceeds from the sale of that production? They can be spent on consumption (C), paid in taxes (T), or saved (S).

$$Y = C + T + S$$

Algebraic manipulation results in:

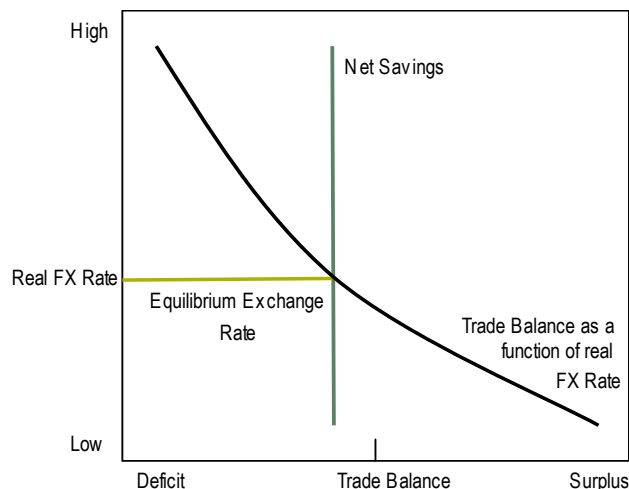
$$X - M = T - G + S - I$$

Notice that taxation minus government spending is actually the fiscal balance of a nation or, in other words, net government savings. Similarly, savings minus investment is the net private savings of the country<sup>2</sup>. So in essence, the above equation tells us that total net national savings is equal to net exports. So our trade balance (current account) must balance our net financial position (capital and financial accounts).

## Why is the balance of payments important for foreign exchange?

The balance of payments actually serves as a measure for the supply and demand for currency. When the current account is in surplus (exports are greater than imports) then there is a net demand for currency, as foreign consumers must buy more dollars to buy domestic products than domestic consumers must spend to buy foreign products.

When the exchange rate is high in real terms, foreign consumers buy less domestic goods and domestic consumers buy more foreign goods resulting in a current account deficit. The converse is true as well – low exchange rates resulting a current account surplus. The story for net national savings is a little different. There is no reason to believe that foreign exchange rates have a significant effect on the net national savings. A simplistic representation of these two ideas is given below. This representation determines the equilibrium real exchange rate as the point where the balance of payments actually balances.



What must be remembered is that this does not determine the actual real exchange rate; it only determines the equilibrium that would occur if nothing changed. We should also note that this is very similar to Purchasing Power Parity in which the equilibrium real exchange rate is 1. This model allows us to explain some of the deviations from PPP using the flow of financial assets (net savings).

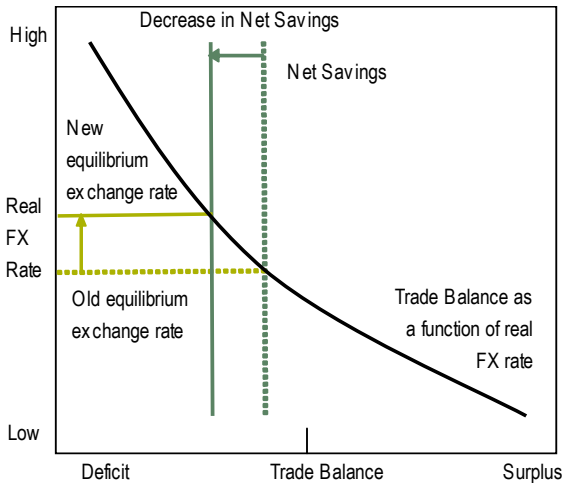
Also like PPP, we need to make the connection between real exchange rates and nominal exchange rates. In both cases, the changes in the real exchange rate are related to the nominal exchange rate changes by the way of the interest rates and the inflation rates.

## Implications of changes

With our new model, we can understand the impact of changes in the economy on the equilibrium exchange rate and, as a result, we can adjust our view of how the nominal rate might change in the future.

### Changes in net savings

Changes in net national savings such as resulting from an expansionary monetary policy increase the equilibrium real exchange rate. The lower interest rates discourage saving and encourage investment, shifting net savings to the left. The trade balance that matches this new level of net savings will only occur at a higher real exchange rate. A tightening monetary policy would result in a lower equilibrium exchange rate.



## Returns and Expectations

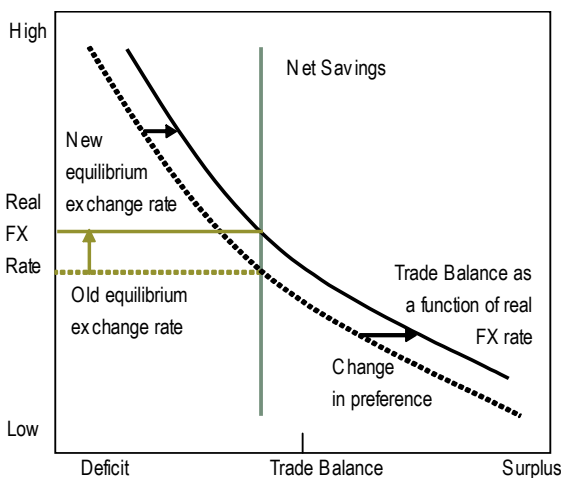
Our currency strategies ended the year on an up note. The performance in December was due primarily to relative valuation investments in New Zealand, Japan and the UK, while a prospective bond flow investment in the EMU and a prospective equity flow investment in Sweden held us back from even better performance. For the quarter and for the year, we had nearly global profitability (only New Zealand and Canadian investments lost money), primarily driven by prospective equity flow investments on the positive side and relative valuation on the negative side.

### Changes due to inflation

Changes in inflation do not directly affect the equilibrium effective exchange rate, but they do affect the nominal exchange rates and the current real exchange rate.

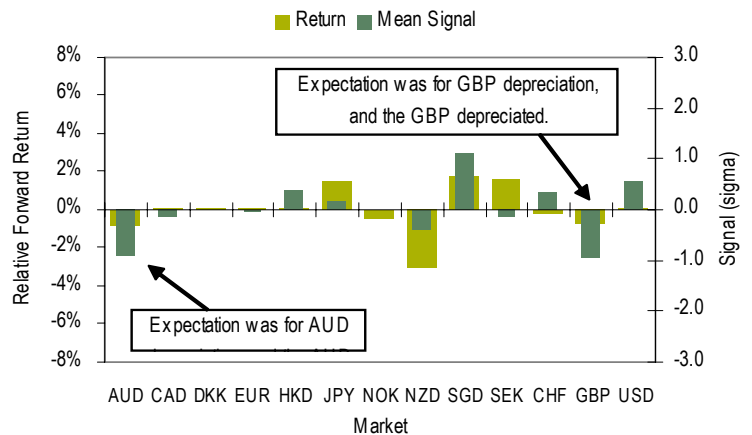
### Changes in the preference for exports and imports

If foreign consumers have become willing to buy more domestic goods for a given exchange rate, the trade balance function has shifted to the right and results in an increased real exchange rate.



## Currency Returns and Expectations

(December 2005)



Source: WM/Reuters and First Quadrant, L.P.

December saw significant central bank activity. The ECB increased rates by 25bp early in the month and was joined by Canada, New Zealand, Switzerland, and the USA. December's increase in interest rates was just part of a year of interest rate increases. Over the year, all but three countries raised rates – lead by the US with a 2.00% increase and Canada and New Zealand each with 75bp increase in official rates. On the other end of the spectrum, Sweden decreased rates by 50bp and the UK rates decreased by 25bp, while Japan left rates untouched for the entire year. For most countries, most monetary policy changes came near the end of the year.

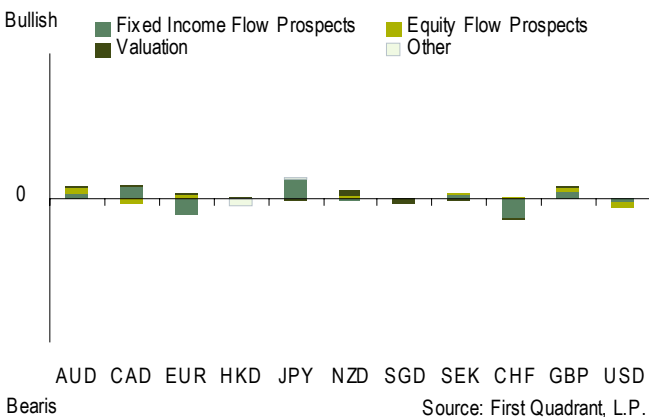
Despite the general increase in short-term interest rates, the bond markets saw decreases in rates, with the largest in Norway (-21bp), New Zealand (-16bp), Australia (-15bp), and the United States (-15bp). The sole exception to this was Japan's 7bp increase.

December was a good month for equity markets around the world. The only exception to this in our set countries was the US, which was flat during the month. Most notably, Japan continued its very strong stock market performance with an increase of 7.06%.

In the currency markets New Zealand (-3.05%), Singapore (+1.76%), Sweden (+1.58%) and Japan (+1.45%) all had an active month while the UK and Australia had a moderate foreign exchange movement and other countries had basically no change. These changes in exchange rates mostly represented movement toward fair value on a PPP basis.

**Change in Factor Contributions to Forecast**

(November 2005 – December 2005)

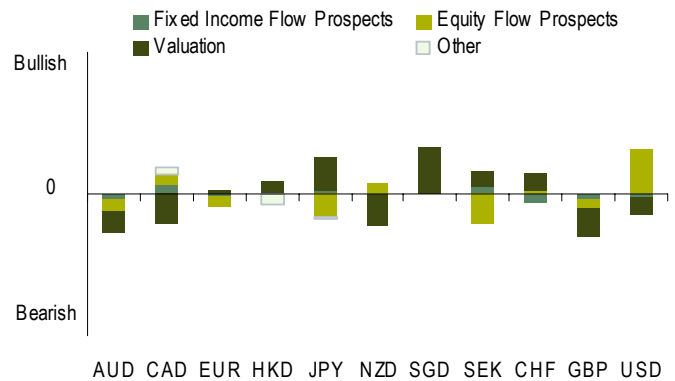


AUD CAD EUR HKD JPY NZD SGD SEK CHF GBP USD  
Source: First Quadrant, L.P.

The Japanese yen is currently the most undervalued currency on a relative valuation basis followed by the Swedish krona and the Swiss franc while the New Zealand dollar is the most overvalued followed closely by the Canadian Dollar and the UK pound. The US dollar is poised to receive the most equity flow, coming primarily from Japan and Sweden. Japan is slightly more favorable and Switzerland slightly less favorable than the other countries for bond flows. Prospective cash flows slightly favor the US with funds most likely to come from Australia, Japan and the UK.

**Factor Contributions to Forecast**

(December 2005)

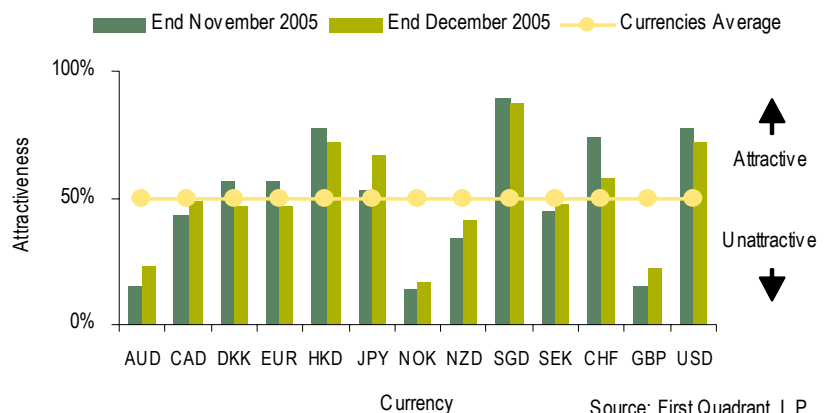


AUD CAD EUR HKD JPY NZD SGD SEK CHF GBP USD

Source: First Quadrant, L.P.

The current overall positioning reflects a general shrinking of the positions. The British pound and Australian dollar make up the bulk of the short positions, while the US dollar and Japanese yen form the bulk of the long positions. Over the year these four positions were consistent throughout the year. The Swiss franc position though starting the year neutral has trended to a long position and the Swedish position has shifted from a short position to neutral. All of the other positions have fluctuated near neutral during the year.

**First Quadrant Currency Attractiveness**



Currency Source: First Quadrant, L.P.

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