# Chilean Peso Makes Exceptions To Currency Rules

Think back to the first time you saw Chile on a map of the world. If your first reaction was not something on the order of, "What an unusual shape for a country," chances are that was your second reaction. Just as terrain determines tactics in the military equation, geography determines destiny for countries such as Chile. Oddly enough, it is not the presence of the world's driest desert, the Atacama, in the north or the mountainous forests of the southern third sweeping down to Tierra del Fuego that has determined Chile's destiny.

The real determinant lies offshore under thousands of feet of water, and that is the subduction zone of the Chile-Peru trench. This is where the tectonic plate of the Pacific Ocean is sliding underneath the westward-moving South American plate. As the plate sinks, water carried downwards into the mantle becomes superheated and rises through cracks in the crust forming the base of the Andes Mountains. The minerals carried upwards form some of the largest deposits of copper anywhere on the planet, including one of the largest open-pit copper mines in the world, Chuquicamata.

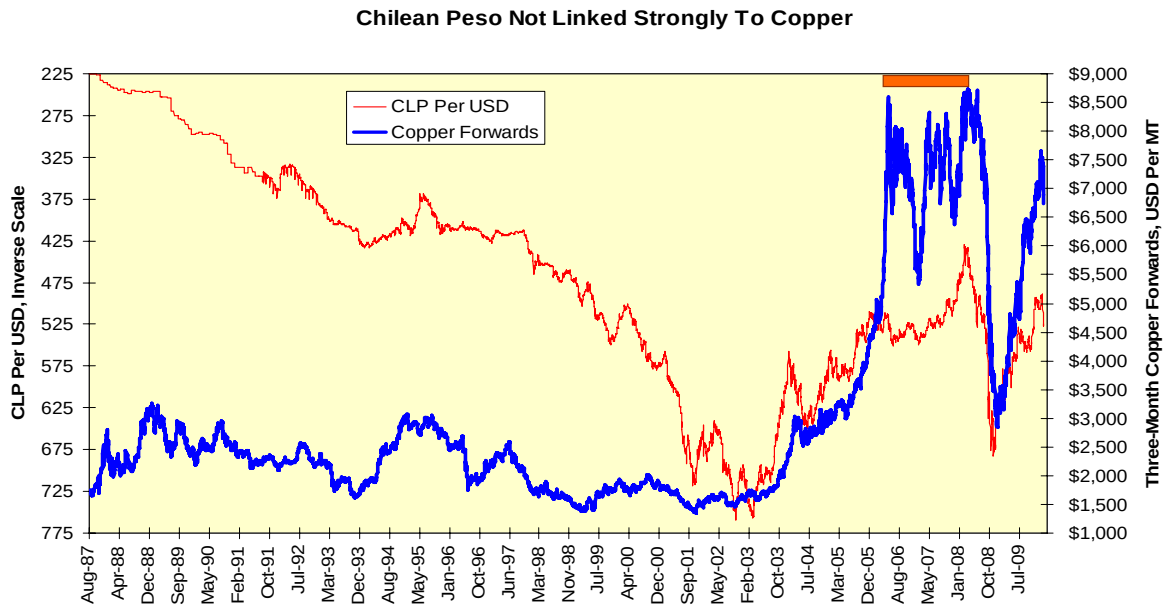
As an aside, Chile used to have a second great source of mineral wealth, nitrates. Eons of guano deposition by seabirds were compressed into sodium and potassium nitrates. Prior to the development of the Haber process for catalyzing nitrogen from the air with hydrogen to form ammonia, Chilean nitrates were the world's largest source of both explosives and fertilizers.

**Chile And Copper**

Prior to the overthrow of the socialist Allende government in Chile in 1973, the country had become dangerously dependent on its copper earnings. As any country with a commodity dependency can attest, this is always a mixed blessing as the country's well-being is dependent on an external market it cannot control. After the overthrow of Allende and a free-market turn in Chilean economic policy under the so-called "Chicago Boys," disciples of the University of Chicago's free-market economic philosophy, the country diversified its export base to take advantage of its central growing region and its location in the Southern Hemisphere. Many of the fresh fruits available in the U.S. during the winter are exported from Chile, and the country has moved up the value-added curve to add wine to its export mix as well.

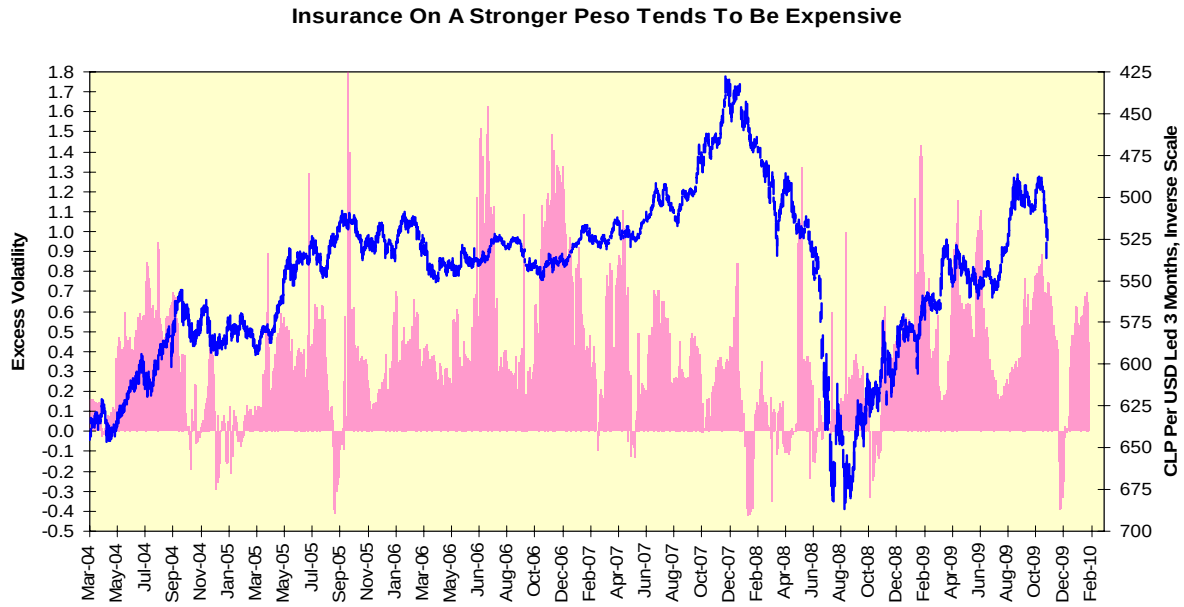
But copper dominates the export mix still and is by far the country's leading export earner. Does this create a strong link to the Chilean peso, or, as we saw last month with the case of South Africa and gold, (see "Cry, The Beloved Currency," March 2010) is the link largely absent?

The answer is strangely mixed. Prior to the adoption of low interest rates in the U.S. in 2001-2002, the link between copper prices and the exchange value of the CLP was largely absent. Once U.S. interest rates helped trigger both a manic expansion of Chinese demand for copper starting in 2003, the CLP followed copper prices higher. Then something strange happened, highlighted by the copper-colored rectangle: Between May 2006 and May 2008, copper prices entered a highly volatile long-term consolidative top and the CLP-copper link broke. The link re-emerged during the financial crisis of 2008-2009 as commodity investors fled the metal and financial investors fled emerging markets, and the link continued onwards into 2010. The net result is a link that works only some of the time and under certain conditions; we cannot consider this an intrinsic relationship as much as a series of anecdotes.

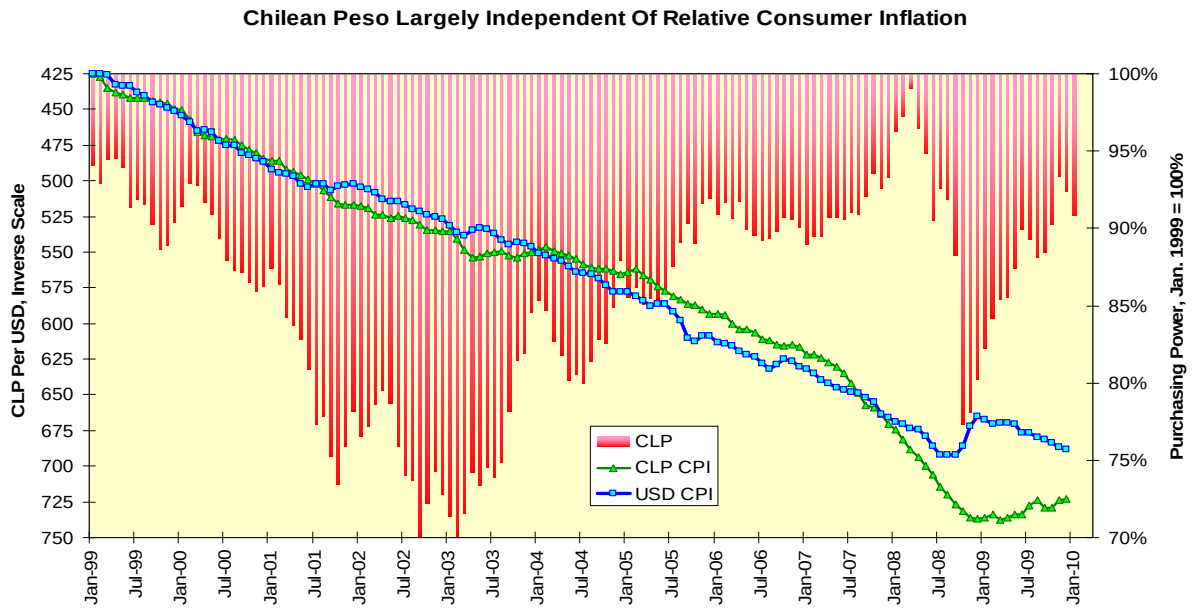



**If Not Copper, Then What?**

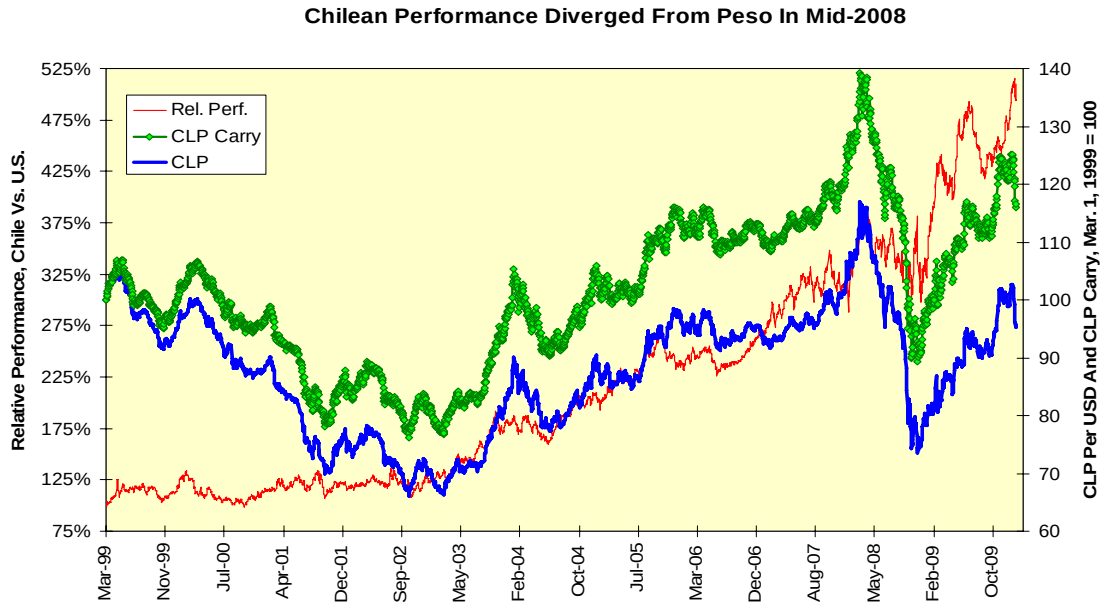
If copper is not a driver of CLP rates, we have to turn to a checklist of what else might be. The currency does not appear to be driven by large swings in its excess volatility or ratio of implied volatility to high-low-close volatility less 1.00. We have seen how this indicator tends to lead many other currency exchange rates by three months on average, but here we simply have a volatile series where implied volatility tends to be expensive regards of movement in the currency and the currency does not appear affected by excess volatility. We should scratch this off the list of contenders.




What about relative purchasing power as determined by movements in the respective consumer price indices of Chile and the U.S.? The Chilean CPI numbers have a short history, but between January 1999 and January 2008, the two countries' purchasing power declined at relatively the same rate. The CLP both weakened between January 1999 and February 2003 and strengthened into March 2008 with little or no relationship between it and the relative exchange measures. Once Chilean inflation started to outpace its American counterpart in 2008, the CLP fell, but this clearly had more to do with the global financial crisis than relative CPI. The CLP strengthened vis-à-vis the USD through mid-2009 even though the two countries' rates of consumer inflation moved parallel to one another. Finally, a better CPI picture in Chile relative to the U.S. contributed to a stronger CLP in the second half of 2009, but did nothing to prevent a selloff in the CLP during January 2010. Once again, relative CPI does not seem to affect the currency at all.



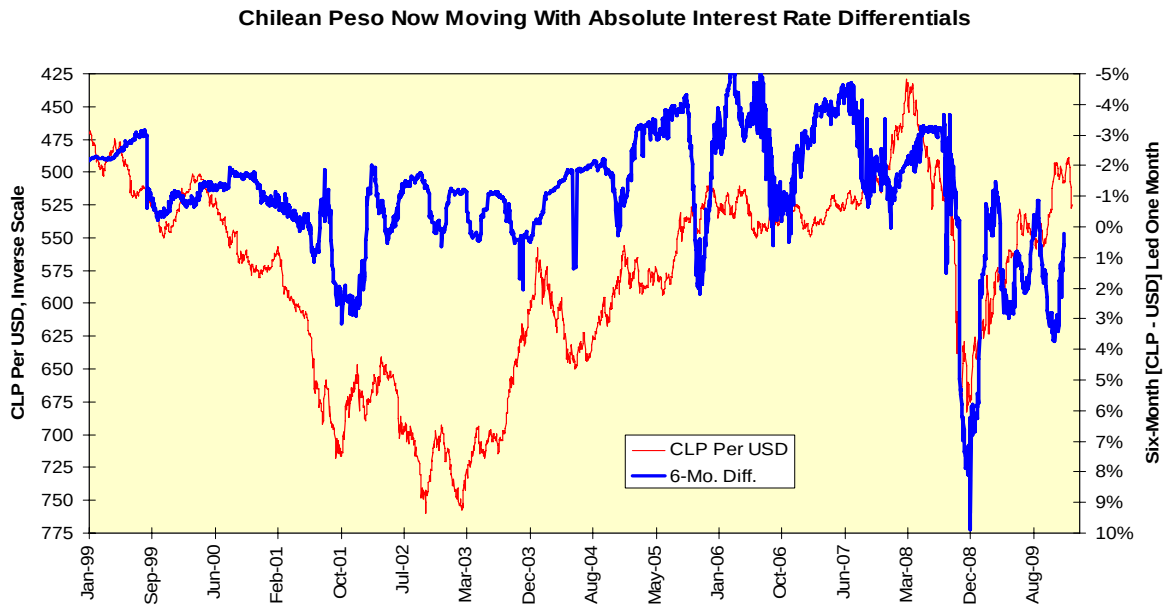

The relative attractiveness of a country's financial assets as measured by the return on its national stock market often is reflected in the currency rate; we certainly saw this last month with the South African rand and the relative performance of South African stocks. Here, too, the relationship is frustrating. Chilean stocks have outperformed their American counterparts almost continuously since March 1999, yet both the spot rate of the CLP and the carry return of borrowing USD and lending in CLP have moved higher and lower during the period. Even when both the peso and the peso carry collapsed in 2008, the Chilean stock market simply churned sideways relative to the U.S. stock market. We have to cross this one off the list, too.




**Short-Term Interest Rates**

One of the more common determinants of currency rates, expected interest rate differentials, is nearly impossible to calculate for the CLP at the six-to-nine month horizon we use typically. Chilean deposits at the three- and six-month horizons are active, and the one-year is available, but we cannot calculate the six-nine month forward rate ratio for the CLP. This is the forward rate between six and nine months divided by the nine-month rate itself, and it determines reinvestment prospects at the end of a three-month non-deliverable forward.

We can, however, use a simple interest rate spread much as we did for the Mexican peso (see "Mexican Peso: Who's Your Padre?," February 2007). There the three-month spread between the MXN and USD was a good indicator; here it is the six-month simple interest rate spread. While this did not match well during the first period of low interest rates in the U.S., 2001-2003, it started to match well against the CLP thereafter.




Still, this is unsatisfying somehow. Currency rates almost always can be linked to carry spreads, expected interest rate differentials, key commodity prices or relative asset returns. In the case of the Chilean peso, none of these apply. It is a group of exceptions to the rules.