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Misleading misalignments

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Judging whether a currency is seriously undervalued is much harder than you think

“MISALIGNMENT” is all the rage. A new bill introduced into America's Senate proposes to punish countries where the exchange rate is found to be “fundamentally misaligned”. It would require the Treasury to identify seriously undervalued currencies, and then, if the culprits do not take action, would allow American firms to ask for protective anti-dumping duties. If a culprit persisted with its “manipulation”, the Treasury would have to lodge a formal complaint at the World Trade Organisation. The bill, which is clearly aimed at China, follows a flurry of China-bashing proposals over the past year. But this one is different: it has widespread support and is likely to be passed before the end of this year.

Congress is hoping that it will be much easier to show that a currency is misaligned than manipulated. On June 13th, the day that this legislation was introduced, the Treasury decided yet again not to brand China a currency “manipulator” in its semi-annual report on exchange rates, but confidently declared that the yuan was “undervalued”. And on June 18th the IMF also announced a new framework for monitoring countries' exchange-rate policies. It will track indicators such as heavy foreign-exchange intervention and “fundamental exchange rate misalignment” in order to identify countries that are unfairly manipulating their currencies.

This activity is based on the widespread assumption that the Chinese yuan is hugely undervalued against the dollar. Yet the awkward truth is that it is almost impossible to be sure when a currency is misaligned, let alone by how much. A recent Treasury research paper admitted that there was no fail-safe method to estimate the correct value of a currency. A study by two IMF economists, Steven Dunaway and Xiangming Li, examined eight different estimates of the yuan's supposed undervaluation: they ranged from zero to almost 50% depending on the methods and assumptions used.

There are three main ways of determining the “correct” value for a currency. The oldest is based on the theory of purchasing-power parity (PPP): the idea that, in the long run, exchange rates should equalise prices across countries (*The Economist*'s Big Mac index is a crude version of this). More sophisticated PPP models adjust for differences in productivity or income per head, because it is natural for prices to be lower in low-income countries. They usually find that the yuan is undervalued. The biggest weakness of PPP is that the equilibrium is only a very long-run one, as it completely ignores capital flows.

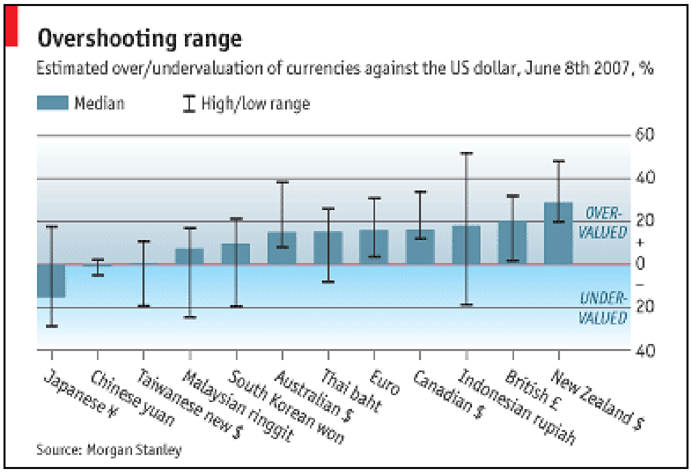
A more popular definition of the fair value of a currency is the exchange rate that corresponds to a trade position considered “sustainable”. Thus China's large and rising current-account surplus is seen as hard evidence that the yuan is severely undervalued. A related approach is to estimate the fundamental equilibrium exchange rate (FEER). This is the rate consistent with both a sustainable current-account balance and internal balance (ie, full employment with low inflation). But many FEER studies of the yuan focus only on trade and assume that China is close to internal balance—despite its vast pool of underemployed rural workers. Even if the trade surplus requires a big revaluation, the internal-balance criterion may call for a lower exchange rate.

The FEER approach is flawed in two ways. First, a large current-account surplus does not necessarily prove that a currency is unfairly cheap; it may just reflect countries' different savings and investment rates. Second, it is increasingly difficult to define the sustainable level of a current account in a world of mobile capital. Yet the equilibrium value of a currency is highly sensitive to this assessment.

For this reason, Stephen Jen of Morgan Stanley prefers a third method of calculating the fair value of a currency: the so-called behavioural equilibrium exchange rate. This does not attempt to define long-term economic equilibrium. Instead it analyses which economic variables, such as productivity growth, net foreign assets and the terms of trade, seem to have determined an exchange rate in the past, and then uses the current values of those variables to estimate a currency's correct value.

Pick a number

Morgan Stanley uses no fewer than 13 models to value currencies. Its latest update offers a wide range for the euro's fair value against the dollar from $1.02 to $1.29, with a median value of $1.15. By all measures the euro's current rate of $1.34 looks overvalued. Sterling and the New Zealand, Australian and Canadian dollars also all look too expensive (see chart). Most striking is the New Zealand dollar that is 29% overvalued.



The yen might be anything between 18% overvalued and 29% undervalued, depending on which model you trust. But nine of the 13 models signal undervaluation, with the median value suggesting the yen is 15% too cheap—the weakest currency in the chart. What about the yuan? Morgan Stanley uses only four models to estimate the yuan's fair value, of which the median valuation suggests it is only 1% undervalued against the dollar—not the answer Congress wants. Another surprise is that most other emerging Asian currencies now look overvalued.

None of these numbers should be taken as precise, but two conclusions follow. The first is that, in theory at least, there is a stronger case for declaring Japan's currency to be misaligned than China's. It is bizarre that the weakest currency is the yen, when Japan is the world's largest net creditor and had faster GDP growth than either America or the euro area in the first quarter. The problem, says Mr Jen, is that traditional models for estimating the fair value of currencies still focus mainly on the real economy, but increased cross-border investment flows (based partly on nominal interest-rate differentials) are now much more important. The second awkward conclusion is that the highly subjective nature of assessing currency misalignment will make it very hard for America or the IMF to agree on whether a currency is out of line.