Musings on Markets

My not-so-profound thoughts about valuation, corporate finance and the news of the day!

Friday, August 19, 2011

Trapped Cash: Measurement and Consequences

It is an open secret that US companies have accumulated huge cash balances over the last two years. In fact, there were a few mentions that Apple's cash balance of $76 billion gave it more cash than the US treasury a few weeks ago, and I did a post on a while back on whether Apple had too much cash. While this "sitting on cash story" is an interesting one, there is a sub-story that we need to pay attention to and that may affect how we value companies. Not all of cash balances are equally benign. In fact, a significant portion of the cash balance, at some companies, may be "trapped" and thus not easily accessible, either for investments or paying dividends.

What is trapped cash?
Trapped cash refers to the portion of a company's cash that is held a company that is held in fully-owned foreign subsidiaries or units of the company. Note that there is nothing illegal or even unusual about this phenomenon. All multinationals generate revenue, earnings and cash flows in foreign markets, and those cash flows are held (at least temporarily) in those markets. As US companies generate larger proportions of their revenues overseas, the cash flows they generate from foreign markets has also increased.

Why is it trapped?
There are four reasons why cash may be trapped in foreign subsidiaries:
a. Operating reasons: To the extent that there are significant growth opportunities in foreign markets (especially in Asia), the cash is being held in abeyance to cover investment needs in these markets.
b. Foreign restrictions: In some markets, the country in question has put significant restrictions on remittances from that country back to the United States. To be fair, these restrictions are sometimes tied to incentives or favorable tax treatment offered to the company for investing in the country.
c. US tax laws: Income generated by US companies in foreign countries is first taxed by those countries, when it is earned. However, it is not subject to US taxes until it is remitted back to the United States, with foreign taxes paid allowed as a credit. Thus, if a US company generates $ 1 billion in taxes in China, it will pay the Chinese corporate tax rate of 25% on this income. When that income is remitted back to the US, the income will be taxed at the US corporate tax rate of 35%, with the $250 million in Chinese taxes paid already as an offset. The net tax paid to the US government at the time of remittance will therefore be $100 million. By letting the cash accumulate in the foreign subsidiary, the company will be able to delay paying taxes to the US government. Since the US has one of the highest marginal corporate tax rates in the world, cash accumulation in foreign subsidiaries is a given, with the accumulation being greatest in countries that have marginal corporate tax rates much lower than the United States.
d. Accounting: Adding to the tax law is a GAAP accounting requirement that US companies with foreign income recognize the US taxes that they would have to pay on that income, in the period in which the foreign income is generated (rather than wait for remittance). There is, however, an exception. If the company makes the assertion that it never intends to bring the cash back home, it does not have to recognize US taxes. Not surprisingly, many US companies make this assertion to reduce taxes paid on income statements (and increase after-tax income).
Thus, there is both a cash flow and a reported earnings rationale for holding cash in foreign subsidiaries and the cost of remittance will increase over time, as the foreign cash balance increases.

How big is the trapped cash balance?
There are estimates floating around the blogosphere that put the total trapped cash well in excess of a trillion; a JP Morgan Chase analyst report estimated that 519 US multinationals alone accounted for about $1.4 trillion in trapped cash. The truth is that no one has a precise estimate because US companies are not required to reveal how much of their cash is held in foreign subsidiaries. There are three ways of estimating the amount of trapped cash:
a. Public reports: While companies are not required to break out their trapped cash, some companies do so voluntarily. For instance, Apple in its most recent 10K explicitly broke out the portion of its cash balance that was held overseas; it specified that more than $30 billion was invested overseas (Update: It is estimated that $41 billion of Apple's cash balance of $76 billion in mid-2011 is invested in foreign units). You could extrapolate from the numbers reported by these

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I am a Professor of Finance at the Stern School of Business at NYU. I teach classes in corporate finance and valuation, primarily to MBAs, but generally to anyone who will listen.

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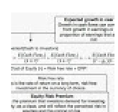

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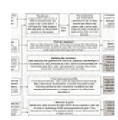

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companies to the rest of the market. Thus, if 55% of the cash balances at companies that report foreign cash balances explicitly is trapped cash, you could assume that a similar proportion applies to companies that are not explicit. The danger, of course, is that companies that are not explicit about their cash holdings may be very different in their behavior than firm that are.
b. Operating exposure: Companies do report what proportion of their revenues and operating income is generated in foreign markets, In 2010, for instance, S&P estimated that 46.3% of revenues of the S&P 500 companies were generated overseas. One could argue that 46.3% of the cash balances of these companies are trapped, though that requires heroic assumptions about earnings and cash remittances at these companies.
c. Effective tax rates: If we assume that companies that trap cash in foreign subsidiaries also adopt the consistent accounting rule (of asserting that they do not plan to bring that cash back to the US), the effective tax rate of a company should provide some information on its cash trapping practices: the more cash that is being trapped in foreign subsidiaries, the lower the effective tax rate for the company should be.
No matter how you measure the magnitude of the trapped cash, we know that it is a very large number. How? Well, companies are spending millions of dollars lobbying Congress to change the tax laws on remittances and they would not be doing this, if there were not billions at stake.

So, what if cash is trapped?
Now, to the billion dollar question. Why does it matter whether cash is trapped or not? Put in more general terms, does this trapped cash have any consequences for corporate finance, valuation and the general well-being of US companies? I think it does and here are some reasons why:
a. Trapped cash may be wasting cash: In most valuations, we treat cash as a neutral asset, i.e., we value a dollar of cash at a dollar and add the cash balance on to the value of operating assets to arrive at firm value. However, cash is a neutral asset only if it earns a fair market return, given the risk and liquidity of the investment. Investments in treasury bills and commercial paper may earn a low rate, but a fair rate, of return and are thus neutral investments. Cash trapped in some emerging markets may not be as easily invested in fair market return investments. In fact, it is possible that the closest selection to a liquid, risk less investment is a bank deposit delivering interest income much lower than justified. That cash will have to be discounted and the value of the firm will decrease as a consequence.
b. Trapped cash may create financial constraints (and costs): It is possible that a company that has significant portions of its cash trapped in other markets may have to raise new financing (debt or equity) to carry out transactions or worse still, not take good investments because it does not have the capital available to do so. Thus, you may have the oddity of a company like Google with $20 billion in a cash balance issuing $ 3 billion in bonds to make an investment. The value of the firm will be reduced by the transactions costs associated with the new financing (if new financing is raised) or the value lost by turning down good investments (if investments are rejected).
c. Trapped cash may induce "bad" investment decisions: Companies with significant trapped cash may jump at the chance of using that cash, even if the investments taken offer sub-par returns. The defense will be that they have nothing better to do with the cash. This is the rationale that was offered by some for Microsoft's acquisition of Skype, a Luxembourg based company that allowed Microsoft to use up $8.5 billion of its trapped cash. I have argued earlier that Microsoft over paid for Skype. The fact that they were able to use trapped cash is small consolation and does not alter the value destructive aspects of that transaction.

How can this cash be released?
If you accept the premise that trapped cash can be value destructive, at least for some companies, then the question becomes one of how best to "untrap" this cash. Here are the options:
a. The punitive solution: The tax law can be changed to require that all income generated by US-based corporations will be taxed at the US tax rate, when the income is generated, even if it is in foreign subsidiaries. While this solution may be appealing to those angry at corporations, it will be counter productive and may very well backfire. In particular, note that a multi-national does not need to be US-based and it is conceivable that many multi-nationals will chose to switch their incorporation to a more benign tax regime rather than pay billions more in taxes each year.
b. The benign solution: The tax law can be changed to eliminate the "differential tax" (reflecting the difference between the US corporate tax rate and the foreign corporate tax rate) when income is remitted back to the United States. That will eliminate both the tax and the accounting rationales for trapped cash but will be a tough sell politically.
c. The bad solution: The worst solution to adopt is one that provides the illusion of being punitive without the tax revenues to go with the punishment. That is effectively what we have right now, where remitted income is subject to a differential tax but where every decade or so, we have a tax holiday where companies are allowed to bring trapped cash home without paying the differential tax.
What do I see happening? I think that there will be a tax holiday, either explicitly or implicitly allowing companies to bring trapped cash home without the differential tax bite (or at least a fraction of the tax bite). The legislation will be accompanied by face saving adjuncts: a requirement (toothless and unenforceable) that companies that bring home cash invest in "job creating" investments and a promise that this will be the last tax holiday ever (Yeah... right...) The stock price impact of the legislation will be minimal even for companies with large trapped cash balances. The day after the tax holiday firms will go back to accumulating more foreign cash and waiting for the next tax holiday.

If the cash is released, what will happen?
As talk of a tax fix fills the air, proponents of the tax holiday are already thinking about what they

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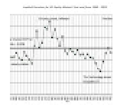

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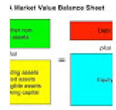

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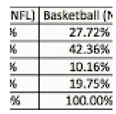

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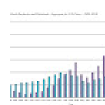

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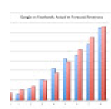

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see emerging in the aftermath, with each group seeing their preferred option winning out.

1. The first group believes that the freed cash will be used by companies to make new investments and "create jobs". In my view, that's not going to happen! US companies have plenty of cash on hand already and are not taking new investments. Why would adding to the hoard change that? The roots for sagging real investment in the US are in a stagnant economy with excess capacity on most fronts, where good investments are scarce. I know that there is talk of linking a change in the tax law to "forced investment", where firms will have to invest remitted cash into job-creating investments to qualify for the tax benefits. That will create more harm than good.
2. The second group is convinced that they will see stock prices pop up for companies with significant cash balances, as the discounts that markets have applied to the trapped cash disappear. That too is a misconception. To the extent that the expectation that the tax law will be changed has already been built into market prices, the actual change (if and when it happens) will not be a surprise.
3. The third group sees the released cash as potential dividends and buybacks. History suggests that they have some reason to be optimistic, since that is exactly what happened the last time there was a tax holiday for foreign cash. While the higher dividends and buybacks will increase cash returned to stockholders, it will be partially (or perhaps even fully) offset by a decrease in equity value as cash leaves these companies.

In summary, a tax holiday is likely to be a non-event for markets and have little impact on corporate investment or economic growth.

Posted by Aswath Damodaran at 2:44 PM

16 comments:

Highgamma said...

This is an excellent post. Thank you.

August 19, 2011 at 4:05 PM

WSM said...

"The stock price impact of the legislation will be minimal even for companies with large trapped cash balances."

WHAT???? Do you have any evidence to support such an assertion?

August 20, 2011 at 6:28 PM

Aswath Damodaran said...

How can you have evidence to back up something that has not happened yet? It is my opinion and it follows from my belief that markets have already impounded the effect of a tax law change... Could I be wrong? Of course... You are entitled to your own opinion...

August 21, 2011 at 8:21 AM

dpluscholar said...

Would you mind extrapolating on the harms of: 'I know that there is talk of linking a change in the tax law to "forced investment", where firms will have to invest remitted cash into job-creating investments to qualify for the tax benefits. That will create more harm than good.'

I would be interested on hearing your thoughts.

August 23, 2011 at 8:26 AM

Aswath Damodaran said...

Forcing businesses to reinvest has always struck me as a bad idea. After all, the old Soviet Union had 100% employment: everyone had a job producing something, but the problem was that most of the things were produced had no real market.

August 23, 2011 at 12:00 PM

NonRandomWalker said...

Excellent post. Do you see increase in domestic M&A, especially large deals, as a possibility after the tax holiday?

August 23, 2011 at 1:24 PM

Pranav Pratap Singh said...

Great Post. Thank you.

August 25, 2011 at 2:11 AM

► July (3)
► June (3)
► May (4)
► April (7)
► March (5)
► February (6)
► January (6)
► 2010 (45)
► 2009 (60)
► 2008 (42)

Saurabh said...

" tax law can be changed to eliminate the "differential tax" (reflecting the difference between the US corporate tax rate and the foreign corporate tax rate) when income is remitted back to the United States. That will eliminate both the tax and the accounting rationales for trapped cash but will be a tough sell politically." Do you mean that would mean no Tax payments in the US?As an example in the China example the company pays 250mn USD in china and 0 in the US, since no differential tax would exist.

August 25, 2011 at 3:54 AM

Aswath Damodaran said...

That is correct, but only for income not made in the US. The US government will still collect tax revenues if the remitted cash is used to pay dividends or buy back stock...

August 25, 2011 at 9:42 AM

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mary brown said...

Not all of cash balances are equally benign. when income is remitted back to the United States. That will eliminate both the tax and the accounting rationales for trapped cash but will be a tough sell politically."pawn shops in atlanta

October 21, 2012 at 6:03 AM

Scotto said...

Most companies investing overseas use a holding in Bermuda, HK, or similar. I would think it would be easy to move cash just about anywhere from these jurisdictions, including back into US markets.

Do you know of any restrictions on a Bermuda subsidiary purchasing a parent's US listed shares?

January 20, 2013 at 6:36 PM

Scotto said...

This article seems to address this topic quite well:

"The presence of those funds in the U.S. undermines the argument that undistributed accumulated foreign earnings are 'trapped' abroad," the [Senate's Permanent Subcommittee on Investigations] said in its report.

http://online.wsj.com/article/SB10001424127887323301104578255663224471212.html

January 23, 2013 at 9:46 PM

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jerry john said...

Your music is amazing. You have some very talented artists. I wish you the best of success.
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February 15, 2013 at 5:25 AM

Retha Lanza said...

This is some of the appreciation has been updated, the fact that the great blog, the highest quality source you want to share.

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April 30, 2013 at 4:42 AM

Lisa Davidson said...

These tips are really effective. Before buying or selling any house one must know these for successful trade. I have also got some good tips from a company around. They are really popular around. They are updating regularly.Thanks from Buy my house for cash.

January 3, 2014 at 8:08 AM

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jay paul said...

Your post really cool and interesting. Thanks very much.

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July 8, 2014 at 4:02 AM

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