The Effect of the Strengthening Dollar on General Motors

Emily McKenna
3/24/15
MGT-360 02

Over the last few months, the dollar index has been closing at record highs following the 2009 recession. As the operations manager at General Motors (GM), it is important that I evaluate how the rising strength of the US dollar (USD) will effect GM's numerous business operations both domestically and overseas. In recent years, our company has faced bankruptcy and net losses. While this has been primality due to the state of the economy, GM has recently been able to turn their operations around and are now starting to turn a profit. However, GM Europe's sales are still not as strong as we would hope despite the improving economy. After looking at GM's annual report from 2014 as well as the historical prices of raw materials and the EUR/USD exchange rate (*Figure 1*), I have concluded that there are some changes we should both anticipate and put in place in order to improve GM's income.

While the dollar index is a useful way to quickly measure the strength of the USD, it should not be the only resource we use. This is primarily due to how the dollar index is calculated. When finding the dollar index, a weighted geometric average of the USD's value relative to six other currencies is used. The idea of the index is that when it increases, the US dollar gains value or "strength" when compared to these other currencies. The weights of the currencies used in the dollar index calculation is as follows: Euro (EUR)—57.6%, Japanese yen (JPY)—13.6%, Pound sterling (GBP)—11.9%, Canadian dollar (CAD)—9.1%, Swedish krona (SEK)—4.2%, and the Swiss franc (CHF)—3.6%. From these weights, it is clear that a majority of the dollar index relies on the Euro, which prevents other currencies from being represented. This is particularly relevant with regard to GM due to the fact that many of their best suppliers (suppliers having won GM's Supplier of the Year award) are in South Korea, a country whose currency is not at all accounted for in the dollar index calculation. With this in mind, it is not beneficial to only refer to the the dollar index when determining the strength of the USD. Since we are concerning ourselves with GM's European division in this instance, the dollar index is a useful tool due to the large representation of European countries in its calculation (*Figure 2*).

When reading through GM's annual reports, the item that stands out most is the cost of revenue for the last three years. In 2012, GM's total revenues were reported at $152,256,000 and cost of revenue was reported at $141,443,000 meaning that the cost-to-revenue ratio (Cost of revenue divided by total revenue) was a staggering 93%. In other words, only 7% of revenues generated by GM was considered profit, the other 93% was used to cover their expenses incurred while generating that total revenue. The next two years were not much better with cost-to-revenue ratios of 88% and 91% in 2013 and 2014 respectively. This huge loss of revenue may be in large part due to the cost of raw materials in the last 5 years. As it was stated in GM's 10-K Form for 2008,

> *"Over most of the past three years the global automotive industry has experienced increases in commodity costs, most notably for raw materials such as steel, aluminum, copper, lead and platinum group metals. These price increases have been driven by increased global demand largely reflecting strong demand in emerging markets, higher energy prices and a weaker U.S. Dollar. During the second half of 2008, the prices of these commodities decreased significantly… We manage our commodity price risk by using derivatives to economically hedge a portion of raw material purchases."*

While the hedging that was done in the second half of 2008 has allowed GM to make a financial gain as opposed to a loss in recent years, the company is still just on the cusp of profit. It is understandable that GM's cost of revenues are so high given the large amount of capital required to produce automobiles, even so, when compared to competitors, GM is struggling. Honda, for instance, has had a cost-to-revenue ratio consistently located around 74% for the past there years, so although their revenues are not as high as GM's (nearly $40 million less each year), their profits are at least double what GM's are (*Figure 7*).

In order to take advantage of the strengthening dollar compared to the Euro, GM should hedge some its raw materials now based on their historical prices. Overall, the prices of commodities (specifically metals and energy) have been relatively low in the past few months. In particular, the prices of platinum, steel, and aluminum (some metals that were mentioned in GM's 2009 annual report) have been falling (*Figures 3 through 6*). According to the S&P, the price of aluminum is actually lower now than it was when GM hedged in the later half of 2008. It would be in GM's best interest to hedge these commodities now before the prices begin to rise. Hopefully, by taking this action now, GM can continue to decrease its cost of revenue and therefore increase its gross profits for the next few years.

Based on financial data collected before and after the recession of 2008/09, the weaker the USD, the less sales GM makes. This means that as the strength of the USD increases, we can expect an increase in revenues, on the other hand, these increased revenues will make little difference if we do not first decrease expenses or cost of revenue. With that said, GM's European sales, which have always been significantly weaker than those in the United States, have shown no signs of increasing anytime soon. This is because while the dollar is increasing in strength, the euro's value is decreasing. This can be seen in the dollar index where a majority of its average is based on the euro, and also in the EUR/USD exchange rate (*Figure 1*). As the months go on, the dollar and euro are getting close to the same value; historically, the dollar has always been weaker than the euro. So what implications does this have on GM's sales? Well as we saw with the dollar earlier in 2008, as the dollar weakened, sales decreased. We should expect the same to happen in Europe; as the euro's value decreases, GM's sales will fall. While this is not something that will happen for certain, it is definitely something the company should keep an eye on for the next few weeks.

If GM's sales in Europe were to decrease drastically due to the decreasing value of the euro, we may consider issuing bonds denominated in euros, however this would hurt, not help the company. This would mean that, if the euro continues decreasing in value for the duration of the bond's maturity, a bond issued today will be worth less now than in the future; as the saying goes, you should buy low and sell high. For example, say that the current exchange rate between USD/EUR (EUR being the base currency) is $1.05 per 1 EUR, in other words, the dollar is weaker than the euro. If GM issued a 1,000 EUR bond today, it would be worth $1,050 at the current exchange rate. Now, assume that the euro continues to decrease in value over the next 10 years. The bond matures and the current exchange rate is $.95 per 1 EUR, the dollar is now stronger than the euro. The value of the 1,000 EUR bond GM originally issued and now needs to pay back (excluding interest rates and coupons paid back over time for example purposes) is now worth $950, but GM will still need to pay back the full value of $1,050 to the lender. If GM were to issue bonds in order to increase their money supply, they would be better off issuing bonds denominated in dollars. Even still, this is all based on the speculation that the dollar will continue to gain value as the euro weakens. If the current trend changes and the euro instead becomes stronger over time, GM will lose money in the future when it comes time to pay back their lenders.

So how does all of this information impact overall corporate earnings? Since GM has never had strong sales in Europe, a weakening euro could mean an end to GM Europe for good. The decision has already been made in 2013 to end the sale of mainstream Chevrolet products in Europe after this year due to the numerous net losses that have been generated in the last few years. Two of the reasons for these losses, as stated in GM's annual report from 2013, are due to high production costs and adverse currency shifts.

So the question is now, how should GM recognize their earnings in a declining European market? According to KPMG, one of the Big Four public accounting firms in the United States, corporate taxes in Europe are about half of what they are in the United States. Despite the change in currency valuations, this rate has remained consistent for the last 5 years. This means that in the past, when the dollar was significantly weaker than the euro, it has been in GM's best interest to leave their earnings in European banks and to recognize their earnings there. However, as the dollar becomes stronger, GM should consider converting these earnings from euros to dollars (GM would want to convert their euros into dollars at a lower exchange rate now so that they could pay less US corporate taxes on their earnings). If GM waits too long and the dollar becomes significantly stronger than the euro, the value of the company's revenues overseas will depreciate. The key word here is “significantly”. Due to the vast difference in taxes between the US and Europe, it may still be in the company’s best interest to leave their revenues overseas. Exact calculations would need to be made to determine at which exchange rate it is worth transferring funds into dollars. Another option altogether would be to use GM’s revenues in Europe to buy raw materials. Simply put, GM can avoid converting their euros into dollars completely by instead converting revenues into assets. All of these options would require additional research if they were to be considered or pursued.

To conclude, GM should anticipate a number of changes in the way it runs its operations due to the increasing value of the dollar and decreasing value of the euro. Speculations should be made by GM’s financial analysts on whether this trend will continue on its current course. In other words, will the dollar become stronger than the euro or will the euro continue to be the stronger currency based on historical values? Either way, GM must improve its sales in Europe soon or continue to face losses inevitably resulting in the loss of GM Europe altogether.

Figures

Figure 1. USD to EUR Exchange Rate (USD is Base Currency)

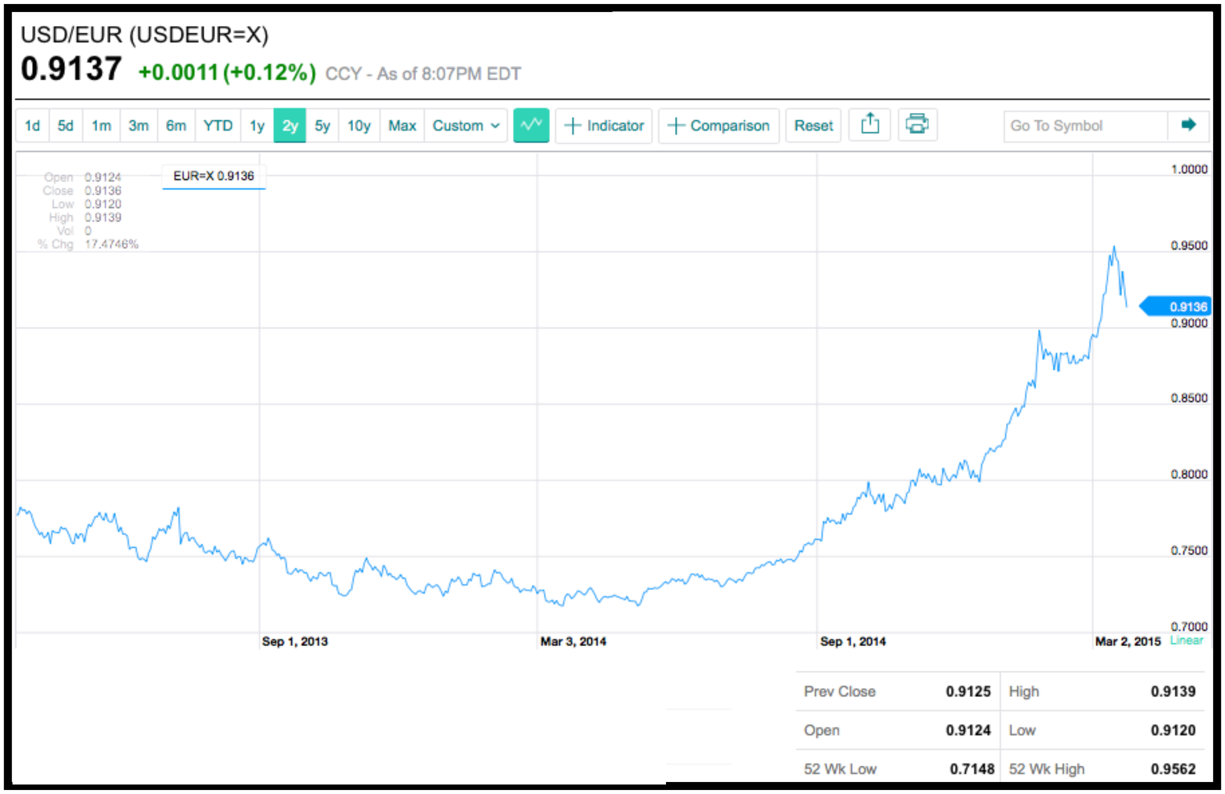

Figure 2. US Dollar Index

Figure 3. Platinum Index

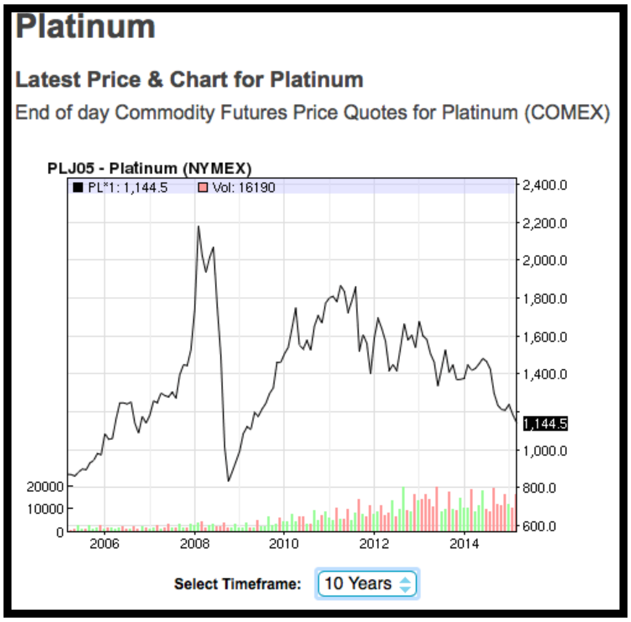

Figure 4. Aluminum Index

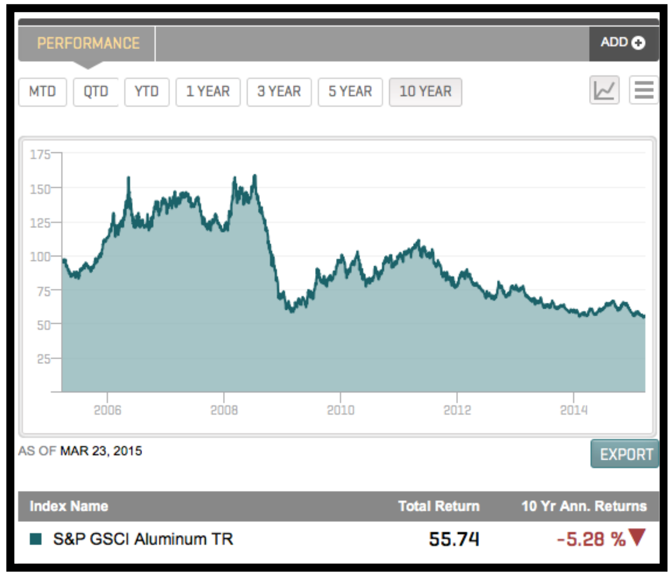

Figure 5. Commodity Fuel Index

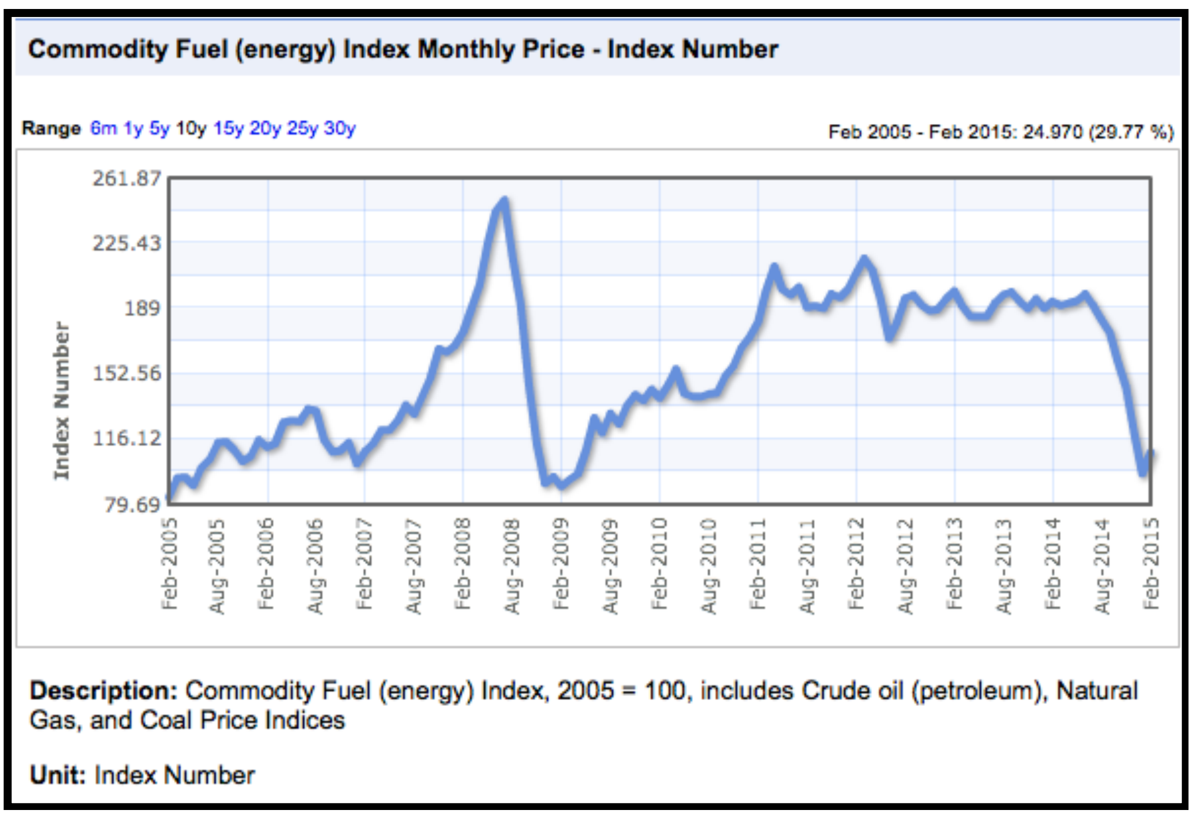

Figure 6. Steel Index

Figure 7. GM vs Honda Cost-to-Revenue Ratios

GM			
Period Ending	Dec 31, 2014	Dec 31, 2013	Dec 31, 2012
Total Revenue	$155,929,000.00	$155,427,000.00	$152,256,000.00
Cost of Revenue	$142,121,000.00	$137,373,000.00	$141,443,000.00
Gross Profit	$13,808,000.00	$18,054,000.00	$10,813,000.00
Cost-to-Revenue	91.145%	88.384%	92.898%
Return	8.855%	11.616%	7.102%
Honda			
Period Ending	Mar 31, 2014	Mar 31, 2013	Mar 31, 2012
Total Revenue	$114,992,000.00	$104,889,000.00	$96,581,000.00
Cost of Revenue	$85,071,000.00	$77,995,000.00	$71,932,000.00
Gross Profit	$29,921,000.00	$26,894,000.00	$24,649,000.00
Cost-to-Revenue	73.980%	74.360%	74.478%
Return	26.020%	25.640%	25.522%

Bibliography

[Figure 1. USD to EUR Exchange Rate]. (n.d.). Retrieved March 23, 2015, from Yahoo Finance website: http://finance.yahoo.com/echarts?s=USDEUR%3DX+Interactive#%7B%22range%22%3A%222y%22%2C%22scale%22%3A%22linear%22%7D

[Figure 2. US Dollar Index]. (n.d.). Retrieved March 23, 2015, from CNBC website: http://data.cnbc.com/quotes/.DXY

[Figure 3. Platinum Index]. (n.d.). Retrieved March 23, 2015, from Nasdaq website: http://www.nasdaq.com/markets/platinum.aspx?timeframe=10y

[Figure 4. Aluminum Index]. (n.d.). Retrieved March 23, 2015, from S&P Dow Jones Indices website: http://us.spindices.com/indices/commodities/sp-gsci-aluminum

[Figure 5. Commodity Fuel Index]. (n.d.). Retrieved March 23, 2015, from Index Mundi website: http://www.indexmundi.com/commodities/?commodity=energy-price-index&months=120

[Figure 6. Steel Index]. (n.d.). Retrieved March 23, 2015, from Yahoo Finance website: http://finance.yahoo.com/q?s=SLX

[FORM 10-K: General Motors Corp]. (n.d.). Retrieved March 23, 2015, from Wall Street Journal website: http://online.wsj.com/public/resources/documents/filing-GM10090305.pdf

[General Motors Annual Reports]. (n.d.). Retrieved March 23, 2015, from General Motors website: http://www.gm.com

[Honda Motor Company Annual Report Information]. (n.d.). Retrieved March 23, 2015, from Yahoo Finance website: http://finance.yahoo.com/q/is?s=HMC+Income+Statement&annual

[KPMG Global Tax Rates Table]. (n.d.). Retrieved March 23, 2015, from KPMG website: http://www.kpmg.com/Global/en/services/Tax/tax-tools-and-resources/Pages/tax-rates-online.aspx