



HARVARD Kennedy School  
**ASH CENTER**  
for Democratic Governance  
and Innovation

**RAJAWALI FOUNDATION  
INSTITUTE FOR ASIA**

## **The Exchange Rate in Myanmar: An Update to January 2012**

Prepared for

Proximity Designs | Myanmar

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## Background

In June 2011, a group from Harvard Kennedy School's Ash Center wrote a short paper<sup>1</sup> arguing that the real or inflation-adjusted exchange rate in Myanmar had become dangerously overvalued. The result, they argued, was that most producers of traded goods – anything that could be exported or that competed with imports – were under severe pressure. It suggested immediate intervention to relieve pressure on producers, though that memo argued (incorrectly) that exchange rate unification was needed before the Central Bank could intervene. The memo argued that continuing inflation was due to printing of money to finance fiscal deficits, and that buying dollars with newly created kyat, if the dollars were kept as foreign exchange reserves, would not be as inflationary.

The exchange rate has moved from about 1300 kyat per dollar in 2006-07 to 800 kyat to the dollar in January 2012 while the consumer price index has jumped by over two-thirds. World rice prices in dollars have been generally strong, with Vietnamese 5% broken export prices at \$520/ton in December 2011, 78% above their 2006/07 average. Wholesale paddy prices in Myanmar have plunged 30% in real terms from 2007 to 2012 and 25% in just the last year. For a variety of reasons, the paddy price to farmers may have fallen even more. This results in less hiring of landless neighbors, migration out of the village (often to a foreign country), less use of inputs and reduced summer paddy planting. Sharp real price declines in pulses have also been reported, though the exchange rate is only one contributing factor to their low prices. Poor quality pulses due to untimely rains and reduced demand from India also play some role.

The questions for the government revolve around three questions:

1. How damaging is the exchange rate to the real economy?
2. How can the exchange rate be managed if that were desired?
3. What side effects would there be if the kyat were managed?

This brief update addresses these three questions.

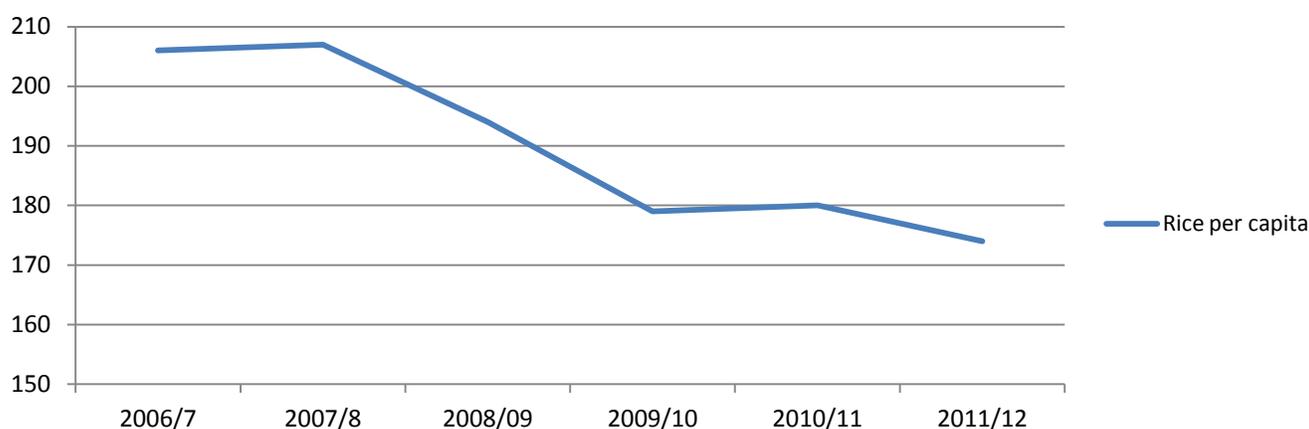
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<sup>1</sup> This study, *The Myanmar Exchange Rate: A Barrier to National Strength*, is posted at <http://www.ash.harvard.edu/Home/Programs/Institute-for-Asia/Publications/Occasional-Papers>. Other recent reports on Myanmar are also available at this URL, including *Appraising the Post-Sanctions Prospects for Myanmar's Economy: Choosing the Right Path*, January 2012.

## 1. How Damaging is the Current Exchange Rate to the Economy?

There is some disagreement among observers as to the severity of the damage caused by the movement of the real exchange rate. One observer called it, “a problem but not a crisis” while one Myanmar parliamentarian said, “Our farmers are very resilient” – implying that they could adjust. The earlier research paper argues that it is profoundly damaging to incomes and to production. One piece of evidence is the per capita production of rice. The United States Department of Agriculture provides objective and independent estimates of rice production in Myanmar. Dividing this by the official estimates of population gives us rice output per capita:

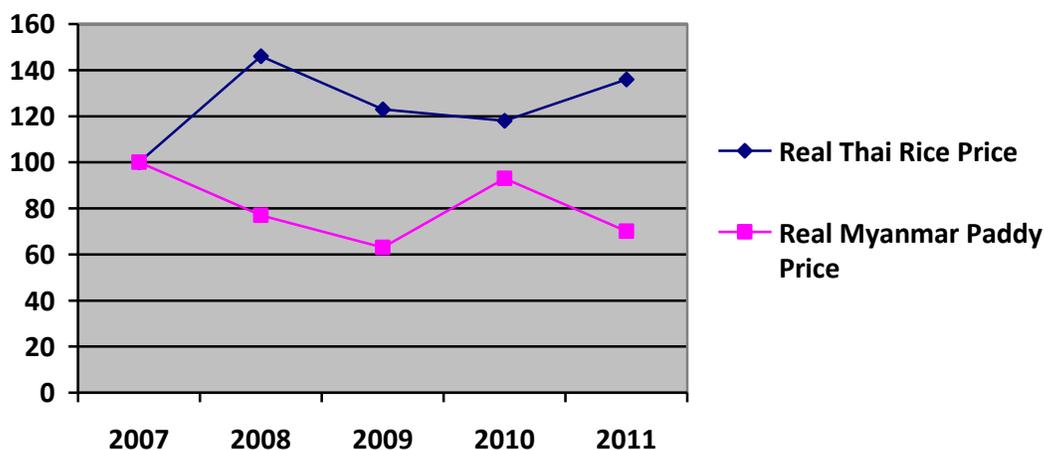
### *Rice Output in Kilograms per capita in Myanmar: 2006/7 to 2011/12*



Given that the world rice price in dollars was generally strong over this period, the collapsing real paddy price received by Myanmar farmers is very likely to have contributed to the 15% per capita output decline. The graph on the following page is an index of real rice prices (Thai 15% broken) in export markets and real paddy prices received for Emata paddy by farmers in Myanmar. It is set so that the index of real prices received in 2007/08 is equal to 100 for both rice and paddy. (The real price is the nominal price divided by a relevant price index. For Myanmar farmers, it is the Myanmar consumer price index. For rice exports, it is the consumer price index for all developing nations.) The graph clearly shows a sharp 30% real decline in paddy price while Thai rice export prices end up more than 35% higher in real terms in 2011/12 than in 2007/08. (The source of the Emata paddy price is from page 100 of the official fact book [Myanmar](#)

Agriculture at a Glance 2011. The Thai rice price is from page 30 of the January 2012 Rice Outlook of the United States Department of Agriculture.<sup>2)</sup>

***Index of Real Export Thai Rice Prices and Myanmar Farmer Paddy Prices, 2007 = 100***



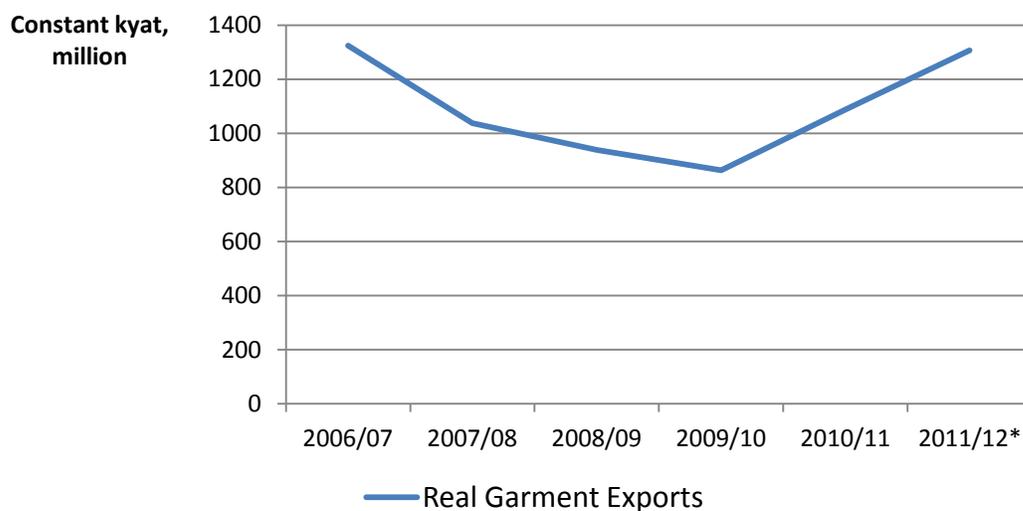
This combination of falling paddy prices while comparable rice prices in world markets are rising (and where sanctions play only a minor role since little rice is exported to markets in rich countries) suggests that the exchange rate was playing a major role in depressing the output and incomes of farmers. The collateral damage of this price movement has been painfully apparent to us in interviews. Farmers' incomes are collapsing; debt is growing; employment of labor is down; and production is dropping. If this is not a crisis in technical terms – there is no shortage of foreign exchange and the primitive financial system is not facing collapse – it is a crisis in real terms.

While farmers and farm workers account for most of the labor force, there is also the manufacturing sector. The real value of garment exports, the major manufactured export, is shown in the graph below. The official export value in kyats is divided by the consumer price index. The 2011/12 year is estimated by doubling the first six months, thus the asterisk. The graph shows a 35% real decline from 2006/07 to 2009/10 and then a recovery to a level slightly below 2006/07. In other words, there was no growth in five years but there was a recovery from the lowest point. This may be due to several

<sup>2</sup> The Emata paddy price used is a wholesale price. The actual price received by farmers is lower, and the farm price to wholesale gap appears to be growing. This is because farmers increasingly in debt have to sell at harvest when prices are lowest and also because restrictions on overweight trucks have resulted in much higher costs of moving paddy to market.

things besides the exchange rate, such as a recovering global economy and higher wages in China leading to movement of labor-intensive factory operations to lower wage nations. While Cambodia's exports in dollars of garments grew 60% from 2006 to 2011, real garment exports from Myanmar fell.

### ***Real Value of Garment Exports from Myanmar***



\*Denotes an estimate based on doubling the first six months of export value. Export data from [Selected Monthly Economic Indicators](#).

It may seem that stagnation is acceptable, even if a nation like Cambodia is taking an increasing share of the global garment trade. However, if Myanmar cannot even compete in garments, which are the traditional first rung of the ladder and a major potential source of employment, where will its growth and employment come from?

## **2. How Could the Exchange Rate Be Managed?**

Most central banks intervene in foreign exchange markets. They buy and sell dollars or other foreign currencies to smooth volatile markets and even to keep a real exchange rate from doing damage to (or not sufficiently assisting) the real economy. Japan, South Korea, China, Taiwan, Malaysia, Thailand and Indonesia have all done this, or are doing it now. In Myanmar, the banking system is not well developed but it should still be possible for the central bank, under existing rules, to intervene. It would have to create kyats and use them to buy dollars on the open market. These dollars should not be spent but “locked away” as foreign exchange reserves. The obvious concern is if this kind of operation would be inflationary.

In Myanmar, both dollars and kyats serve as money. Since the largest kyat currency bill is only worth about \$6, larger transactions (which are typically not settled by check or money transfer) involve either very large physical amounts of kyats or, more conveniently, dollars. If the central bank were to increase the kyat supply but decrease the dollar supply, it would change the exchange rate but not change the total amount of money in the economy. This would still be somewhat inflationary – after all if the exchange rate went from 800 to 900 kyats per dollar, ten dollars worth of rice would increase in price from 8000 to 9000 kyats. But this is the point of changing the exchange rate without changing the money supply – to change relative prices. If the currency is overvalued, the prices of exports and imports have to rise relative to the price of non-traded activities such as construction. However, changing relative prices is not the same as simply printing and spending money, as Myanmar has done in the past to finance its fiscal deficits. If this (printing and spending) were to continue, there would be continuing inflation. But if the exchange rate made a one-time adjustment from 800 to 900 or 1000, and if the purchased dollars were not spent, there would not be a continuing inflation. If the public got nervous about holding kyats, the central bank could reverse their sales and use their retained dollars to buy kyats – even at a profit! This would ensure there is no runaway inflation due to rapid changes in sentiment.

There are other ways to adjust the exchange rate. One is to relax import restrictions and tariffs. This will tend to increase demand for imports and thus the demand for dollars or other foreign currencies. This increased demand will result in more kyats being needed to buy a dollar. This approach makes sense, especially if it were combined with deregulation of cell phone service, for example. The increased demand for cell phones and transmission and base stations would be economically productive and the relative price of farmed and manufactured goods would improve relative to services. (Services are not directly tradable in most cases so the exchange rate has a less direct impact on their prices.)

A third way to change the exchange rate is to spend as much as is budgeted. While fiscal details are murky, it seems that sometimes there is administrative difficulty in disbursing and spending what is budgeted. If more kyats are spent by the government, the people will hold more kyats. This greater supply of kyats should result in more import demand and generally a movement of the kyat against the dollar in the direction of more kyat per dollar.

Any or all of these techniques are feasible, though it would be wise to approach any intervention carefully and get expert assistance (preferably from an ex-central banker with relevant experience) so that pitfalls are foreseen.

### **3. What Side Effects Are Likely?**

One effect is that traded good prices, including rice and paddy prices, would rise in kyat terms. If the kyat to dollar rate moved 20% from 800 to 960, there would be a 20% increase in prices of traded goods. (This would not be true if export bans or tight licensing rules were imposed, but doing that would defeat the purpose of the currency intervention, which is to help farmers grow more rice and pulses, and for factories to employ more labor.) It is remarkable that retail rice prices have risen even while paddy prices have fallen. If there have been excessive margins due to restrictions on rice trading (due even to restricted credit or to regulations), it might be possible to increase the paddy price to farmers without a corresponding increase in urban rice prices by reducing margins. However, this is only a possibility – see the Appendix for a discussion.

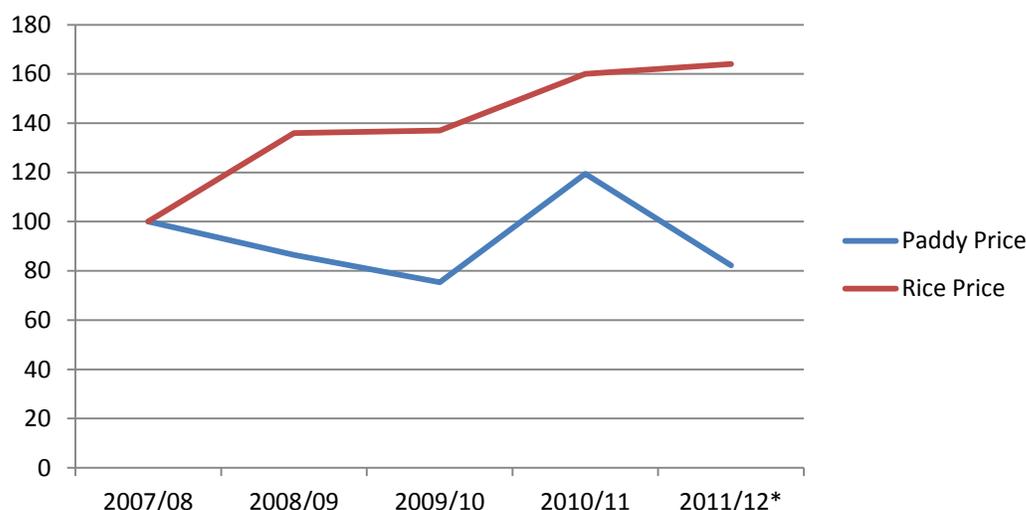
Another impact of a realistically valued exchange rate is likely to be felt in the budget. Up to now, the natural gas revenues in dollars were converted at about six kyat to the dollar and given to the Ministry of Finance, even if the market exchange rate was 100 or 200 times higher. This resulted in a huge transfer of resources to the residual recipients, away from the Ministry of Finance and normal budgetary oversight. Apparently the next (2012/13) budget will convert these dollar based revenues at 800 kyat to the dollar. This would be a huge improvement. However, expenses in dollars would have to be paid for at the market rate, which might be higher – say 900 or 1000 kyat per dollar. It would be better if all dollar based revenues were actually converted at the market rate to match the dollar based expenses.

A third impact might be felt in the financial system. Because of the checkered history of monetary management with periodic high inflation, controlled (below inflation) interest rates and sporadic currency “reforms” which left many holders of kyat notes unable to retain their wealth, there is already some skepticism about using kyat accounts to hold wealth. Indeed, bank money of any kind is only about 10% of GDP, one of the lowest ratios in Asia. The Central Bank will need to communicate its intentions and be able to back them up. It is very desirable that there be financial development in Myanmar and this stabilization should be conducted so that it helps rather than hinders the growth of the formal financial system. A stable and realistic real rate that is consistent with low inflation is the best way to increase confidence in the kyat.

## Conclusions

1. The current real exchange rate is overvalued and is depressing output of traded goods.
2. The Central Bank can legally and practically intervene now to bring the real rate to a more competitive level.
3. This operation, perhaps in concert with others such as reduced trade barriers, need not be very inflationary. Reducing dollar money and increasing kyat money can leave the overall money supply unchanged.
4. Avoiding printing and spending money to cover deficits will help to control inflation.
5. Because much is uncertain, proceeding carefully with some assistance is desirable.
6. Side effects of the intervention are likely and need to be managed.

## Appendix: Index of Emata Paddy Price and Retail Emata Rice Prices, 2007/08 = 100



\*Retail Price is April to September average only; Paddy price is December 2011 observations from the Irrawaddy Delta

This graph uses retail rice price data from the [Selected Monthly Economic Indicators](#) (September 2011), page 35. It provides an index of the nominal (not real) price of rice, with the annual average rice price per pyi divided by the 2007/08 rice price times 100. The 2011/12 (first half) actual price was 906 kyat per pyi and this is used for the entire year. The paddy prices from 2007/08 to 2010/11 are from the official publication, [Myanmar Agriculture at a Glance 2011](#), page 100. They are published in terms of kyat per metric ton. For 2011/12, the percentage changes in farmer paddy prices from 2010/11 are taken from multiple late 2011 field observations and this percentage change is applied to the 2010/11 official paddy price to calculate a 2011/12 paddy price. The actual observed farmer paddy prices per basket were 3700 kyat per basket in 2010/11 and 2970 kyat per basket in 2011/12. The paddy price index is created by dividing all annual paddy prices by the 2007/08 paddy price and multiplying by 100.

This graph shows that the nominal Emata paddy price has fallen 20% since 2007/08 while the nominal retail Emata rice price has risen 64%. This is an astonishing divergence and raises questions about changes in the trading and distribution system<sup>3</sup>. Normally, farmer prices and retail prices move broadly together. Putting it another way, one basket of paddy is 75 lb and should yield (58% extraction rate) 43.5 lb of rice or 9.3 pyi. If a basket of paddy costs 2970 kyat (recent observation), the paddy cost of one viss of rice should be 320 kyat. Yet the latest (September) retail rice price was reported at 875 kyat per pyi, almost three times as much. It is very unusual to have such a distance between these two prices. Indeed, in 2007/08 the paddy cost of a pyi of rice was about equal to the retail price of 552 kyat per pyi, a much more normal relationship. Understanding why the prices are so different now may help unravel the mystery of a strengthening real exchange rate and a consumer price index that does not fall.

<sup>3</sup> One possibility is that restrictions on overweight trucks in 2011 raised transportation costs and increased the gap between wholesale and farm gate prices. Trucking costs rose 50-100% according to some reports.