Case study: how one company doing cross-border business with China improved its profit margin

The context

Recently, we were introduced to a client by their CFO advisor, Martin Lew from M L Business Advisory. The client, that we will call “ABC”, is a manufacturing company based in Hong Kong and operating in US dollars. As their situation is very similar to that of many other companies operating out of Hong Kong, we wanted to share with you how we, together with M L Business Advisory which provided us with insightful context information on the client’s business, were able to help ABC improve their profit margin and minimize costs associated with currency management.

First, let us give you some background on the client. ABC, which is an OEM (original equipment manufacturer), sells products to clients mostly in USD. Conversely, their manufacturing costs are mostly in RMB, although the manufacturing partner in mainland China allows them to pay in USD. ABC thought this might be a great arrangement as they wouldn’t have to do currency conversions or take on the RMB risk. However, what the client didn’t realize was that, even though they were paying their supplier in USD, they were implicitly taking the RMB risk, as when the RMB strengthens with respect to the USD, purchase amounts invoiced by the Chinese supplier increase. In addition, ABC was paying more for the convenience of paying in USD. However, if suppliers allow you to pay in your base currency, it is because they usually price in a “currency buffer” of 5% or more. After explaining the benefits of taking on – and hedging – the RMB risk, the client decided to switch to payments in RMB and pocket the currency buffer. In order to implement this beneficial change, it was key for ABC to understand how to manage their currency risk in the most cost-effective way.

To better understand their business, we did a deep analysis of their cash flows, as we do with every new client, to see where we could help them optimize profit and minimize currency management costs. The first thing we checked was how much they were paying for currency conversions, as this is the first cost that can get eliminated by working with us. We did not include this cost optimization in the illustration on the next page, but it is something that companies often ignore and which can result in significant cost savings.

ABC’s financial situation

On average over a year, ABC sells USD 20M worth of equipment, with total annual purchase cost of about RMB 113.9M (USD 17M equivalent at the prevailing USD-RMB exchange rate of 6.70).

ABC’s expected profit is USD 3M (20M –17M), which in this case represents a **profit margin of 15%**, including a **minimum target margin of 10%** and a **currency buffer of 5%**. In this situation, ABC is exposed to the USD-RMB currency risk on the purchase cost in RMB: if RMB increases against USD, ABC’s profit margin will be reduced. For ease of illustration, we will assume that ABC receives payments from clients and pays its suppliers at T0 + 1 year.

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To hedge or not to hedge, that was the question

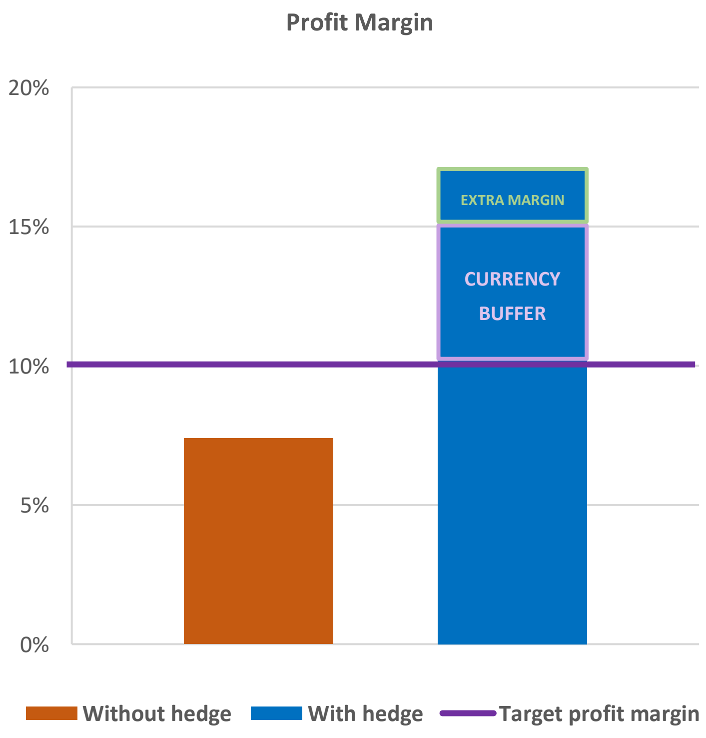
In order to better illustrate how hedging would protect the company's profitability, we looked at the impact of adverse currency moves on ABC's profit margin in the following two cases:

- **Case A:** ABC doesn't hedge its currency risk; it simply converts USD into RMB when needed to pay its suppliers.

- **Case B:** ABC hedges its currency risk using **Futures contracts** on the purchase cost amount (USD 17M), which "lock in" the exchange rate at the beginning of the year, making ABC's P&L insensitive to currency fluctuations. Moreover, thanks to the interest rate differential between USD and RMB, ABC is able to sell USD against RMB at a higher rate (6.87) than today's exchange rate (6.70), thus generating a **hedging profit** ("positive carry").

Results

As we can see in the below table, by hedging its currency risk, ABC would be able to fully **protect its profit margin** from adverse currency fluctuations, **pocket the currency buffer** (5%), and **generate extra profit** (+2%) from the positive carry. By paying its suppliers in local currency (RMB), ABC would also be able to negotiate **better purchase prices** than its competitors who pay Chinese suppliers in USD. In total, our client would be able to lock in an increase in profit margin of more than 7%.



At T0	
USD-RMB exchange rate	6.70
Purchase cost in RMB	113,900,000
Purchase cost (USD equivalent)	17,000,000
Target profit margin	**10%**
Currency buffer	**5%**
Total sales in USD	20,000,000
At T0 + 1 year	
USD-RMB exchange rate	6.15
Currency move	-8%
Payment to suppliers in RMB	-113,900,000
Case A: Without FX hedge	
Payment to suppliers in USD @6.15	-18,520,325
P&L in USD	**1,479,675**
Actual profit margin	**7%**
Case B: With FX futures hedge	
Payment to suppliers in USD @6.70	-17,000,000
FX hedging profit: USD sold @6.87	420,670
P&L in USD	**3,420,670**
Actual profit margin	**17%**

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