“Currency Manipulation” and World Trade

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Central bank intervention in foreign exchange markets may, under some conditions, stimulate exports and retard imports.

In the past few years, this issue has moved to center stage because of the foreign exchange policies of China.

China has regularly intervened to prevent the RMB from appreciating relative to other currencies, and over the same period has developed large global and bilateral trade surpluses.

Numerous public officials and commentators argue that China has engaged in impermissible “currency manipulation,” and various proposals for stiff action against China have been advanced.

This paper clarifies the theoretical relationship between exchange rate policy and international trade, and addresses the question of what content can be given to the concept of “currency manipulation” as a measure that may impair the commitments made in trade agreements.
Our conclusions are at odds with much of what is currently being said by proponents of countermeasures against China.

For example, it is often asserted that China’s currency policies have real effects that are equivalent to an export subsidy.

In fact, however, if prices are flexible the effect of exchange rate intervention parallels that of a uniform import tariff and export subsidy, which will have no real effect on trade, an implication of Lerner’s symmetry theorem.

With sticky prices, the real effects of exchange rate intervention and the translation of that intervention into trade-policy equivalents depend critically on how traded goods and services are priced.

The real effects of China’s policies are potentially quite complex, are not readily translated into trade-policy equivalents, and are dependent on the time frame over which they are evaluated.

Accordingly, we are skeptical about many of the policy responses now under consideration.
How is the global economy affected when the government of China engages in exchange rate intervention to prevent the RMB from appreciating, and what is the appropriate response from China’s trading partners?

The IMF and the GATT/WTO were created to address the international spillovers or “externalities” that might arise when governments choose their economic policies unilaterally, and if properly functioning these international institutions should serve to internalize those externalities and thereby bring the world to the international efficiency frontier.

To determine the proper policy response by other nations (or by international institutions) to intervention in the foreign exchange market, it is therefore first necessary to identify the international externalities that may be associated with such intervention.
We begin by observing that these international externalities might be of two general types, relating either to *trade imbalances* or *trade volumes*.

The IMF has traditionally been assigned the role of handling global trade (or current account) imbalances, when those imbalances are associated with “fundamental misalignment” or “manipulation” of the exchange rate.

The IMF defines both fundamental misalignment and manipulation of the exchange rate in terms of the effects on the current account and net exports, and is in this sense concerned with the *impacts of exchange rate policies on trade imbalances*.

By contrast, the negotiated reciprocal market access commitments that lie at the core of the GATT/WTO are not seen as a means of correcting trade imbalances, but have instead been widely interpreted as a means of reducing policy barriers to trade and thereby expanding trade *volumes* to more efficient levels.
The distinction between the traditional concerns of the IMF and those of the GATT/WTO provides a crucial starting point for the discussion that follows.

In particular, we do not undertake our analysis from a position which sees the IMF as a failed institution and asks the WTO to “take over” the task of handling all aspects of international cooperation over exchange rate policies: such a position would imply a fundamental shift in the limits of the WTO mandate.

Rather, we maintain the assumption that the IMF is the appropriate institution for addressing the impacts of exchange rate policies on trade imbalances.

In this way, our economic and legal analysis presumes that there will be no fundamental change in the role of the WTO.

The question we address is then how the WTO should approach the possible impacts of exchange rate policies on trade volumes.
Admittedly, this approach implies that our paper cannot speak to all corners of the policy debate on currency manipulation, because some in this debate argue that the IMF is a failed institution and that the WTO should be called upon to expand its mandate and achieve what the IMF cannot.

Nevertheless, even with this more limited focus, our paper still speaks to one very important dimension of the policy debate, namely, whether and under what circumstances exchange rate policies can be seen either to impair WTO commitments or to afford a basis for WTO-consistent unilateral responses.
Economic Analysis (cont’d)

- A common – and critical – ingredient for practical implementation of the relevant policy proposals:
- An analysis which would translate China’s exchange rate policies (and in particular the magnitude of its exchange rate “misalignment”) into equivalent real trade policies that could then be more readily evaluated under the rules of the WTO;
- Either to identify the appropriate response by the WTO itself; or to assess the WTO-consistency of unilateral responses.
- The economic discussion to follow will explore in some detail a number of specific issues that arise in this analysis.
- But before turning to that discussion, we first describe two implications of the distinct focus of the IMF and the WTO that provide guidance for what follows.
First, one cannot presume that the IMF’s definition of “exchange rate misalignment,” which is derived from an analysis of trade imbalances, is a useful starting point for assessing the impact of exchange practices on WTO obligations.

The correct definition of “exchange rate misalignment” for the purpose of characterizing the appropriate WTO response to exchange practices or the WTO-consistency of a unilateral response would depend on the legal claim being made within the context of the WTO.

Second, we wish to isolate the trade volume effects of exchange rate misalignment from the trade balance effects, because as we indicated above the latter are the traditional concern of the IMF while the former are most closely tied to the traditional concerns of the GATT/WTO and are hence our focus here.

For analytical purposes, in what follows we therefore work with models that maintain balanced trade.
We start with a world of flexible prices: Law-of-one-price holds.

Here a devaluation is equivalent to the imposition of a uniform import-tariff-cum-export-subsidy, as can be confirmed by the pricing relationships:

\[
P_f^\text{¥$} = \left( \frac{1 + s_f^*}{e} \right) \cdot P_f^\text{$}, \quad \text{(FP1)}
\]

and

\[
P_h^\text{$} = \left[ \frac{e}{(1 + t_h^*)} \right] \cdot P_h^\text{¥$}. \quad \text{(FP2)}
\]

According to (FP1) and (FP2), a drop in \(e\) would require the same adjustments to prices – in order to ensure that the international arbitrage conditions hold – as would a uniform rise in \(s_f^*\) and \(t_h^*\) of appropriate magnitude.

In this setting, devaluation is equivalent to trade policy actions that would likely violate WTO commitments.
But note: no real effects.

Two potential errors in equating a devaluation with tariff increases and export subsidies that would violate WTO rules.

A first potential error comes from *singling out* a particular component of the equivalent trade-policy package (e.g., export subsidies), and suggesting that countries should be able to respond to that component alone.

A second potential error is more subtle: even if each component of the equivalent trade-policy package is included, it would be wrong to argue that countries should be able to respond to each component policy (i.e., export subsidies and import tariffs) as they would be able to respond in the WTO to each of these policies when *viewed in isolation*. 
Now consider a world of sticky prices.

Much depends on the invoicing practices of exporters.

**Producer Currency Pricing.** Law-of-one-price still holds:

\[ \bar{P}^*_f = \left[ \frac{1 + s^*}{e} \right] \cdot P_f, \]  

(PCP1)

and

\[ \bar{P}^*_h = \left[ \frac{e}{1 + t^*_h} \right] \cdot P^*_h. \]  

(PCP2)

Hence, the policy equivalence between a devaluation and a uniform tariff-cum-subsidy continues to hold in a sticky-price world when producers invoice according to PCP.

But real effects are very different from (typical long-run) effects of tariffs/export subsidies: no wedge between relative prices in different countries (no dwl); t-o-t worsens for intervening country; nature of “problem” not the usual GATT/WTO problem.
Local Currency Pricing. Law-of-one-price no longer holds:

\[
\bar{P}_f^{*¥} \neq \left[ \frac{1 + s_f^*}{e} \right] \cdot \bar{P}_f^$. \quad (LCP1)
\]

\[
\bar{P}_h^$ \neq \left[ \frac{e}{1 + t_h^*} \right] \cdot \bar{P}_h^{¥}. \quad (LCP2)
\]

Note: under LCP, no expenditure switching effect of a devaluation; again, very different from (typical long-run) impact of a tariff:

\[
\frac{\bar{P}_h^{¥}}{\bar{P}_f^{¥}}, \quad \quad (LCP3a)
\]

\[
\frac{\bar{P}_h^$}{\bar{P}_f^$}, \quad \quad (LCP3b)
\]
What *is* sensitive to a devaluation is the terms of trade:

\[
\left[ \frac{e}{(1 + t^*_h)} \right] \cdot \frac{\bar{P}^*_{Y}}{\bar{P}^*_h} \cdot \frac{\bar{P}^*_f}{\bar{P}^*_{P}}
\]

(LCP3c)

as well as the actual terms at which exporters trade when translated into a common currency:

\[
\left[ \frac{e}{(1 + t^*_h)} \right] \cdot \frac{\bar{P}^*_{Y}}{\bar{P}^*_h} \cdot \frac{\bar{P}^*_f}{(1 + s^*_f) \cdot \bar{P}^*_{P}}
\]

(LCP3d)

Evidently, when producers invoice according to LCP, there is *no role* of any kind for a China export subsidy \( s^*_f \) in the trade policy package that would replicate the effects of a devaluation.
• Summary:

• The introduction of sticky prices does not resurrect the case for a presumption that fundamental exchange rate misalignment violates WTO commitments, a presumption that was shown to be unwarranted in a flexible-price environment.

• Rather, whether prices are taken as flexible or sticky, the translation and interpretation of the impacts of a devaluation into an equivalent set of trade policy actions is fraught with complexity, and ultimately can only be judged once a variety of subtle empirical questions are answered and the context of the particular legal claims being made at the WTO is spelled out.
Legal Analysis

- Multilateral Options: IMF Action; WTO Action (Article XV, Export Subsidization, Nonviolation nullification or impairment)
- Unilateral options: Bilateral negotiations; CVDs; ADDs).
- Our economic and legal analysis provides little support for a presumption that exchange rate misalignments violate WTO commitments or could reasonably form the basis for WTO-consistent unilateral responses.
Conclusion

- We have argued in this paper that the potential international effects of exchange rate policies can be usefully divided into two kinds: effects on trade balances; and effects on trade volumes.
- We have observed that the effects of exchange rate policies on trade balances is the traditional concern of the IMF, and we have adopted the view in this paper that the IMF is capable of carrying out its role in this regard.
- From this starting point, we have then asked how the WTO might address – either through multilateral action or by facilitating unilateral action – the possible impacts of exchange rate policies on trade volumes.
- We ask whether and under what circumstances exchange rate policies can be seen to either impair WTO commitments or to be a specific basis for WTO-consistent unilateral responses.
Conclusion (cont’d)

- Our economic and legal analysis provides little support for a presumption that exchange rate misalignments violate WTO commitments or could reasonably form the basis for WTO-consistent unilateral responses.
- Rather, whether prices are flexible or sticky, the translation and interpretation of the impacts of a devaluation into an equivalent set of trade policy actions is fraught with complexity, and ultimately depends on answers to a variety of subtle empirical questions.
- Our findings suggest caution in assessing claims that China’s exchange practices are frustrating the WTO bargain.
- Likewise, we question whether China’s practices afford an economic or legally sound basis for unilateral actions such as ADDs or CVDs.
- Unilateral responses of this sort are perhaps the most problematic of all the proposed policies, in that the task of translating Chinese exchange practices into a quantitatively equivalent export subsidy (for countervailing duty purposes) or reduction in export price (for antidumping purposes) seems almost insurmountable.