Trade Reform and Macroeconomic Policy in Vietnam

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Robustness of Gains From Trade Liberalisation

- Long run gains have been mostly positive

- Short run is different:
  - Firms adjustment is incomplete
  - Investment has not yet raised the effective capital stock
  - Physical capital is immobile between sectors
  - Nominal rigidities money not neutral
Why Might Things Get Worse in the Short Run?

- Removing tariff protection shifts home demand to foreign goods.
- Home goods price falls relative to pre-tariff foreign goods price a *real depreciation*.
- This requires either
  - A nominal depreciation, or
  - Monetary tightening a domestic deflation.
Why Might Things Get Worse in the Short Run?

If the central bank targets the nominal exchange rate and wages are slower to adjust than product prices:

- Real wages rise faster
- Industrial employment growth slows
- GDP growth slows
Why Might This Reasoning Be In Error?

- It stems from a single product view of the world.

- It ignores Heckscher-Ohlin-Samuelson gains from trade that raise overall factor productivity.

- Expected future returns on installed capital rise, so investment spending increases. This
  - adds to short run aggregate demand
  - tends to raise the capital account surplus (and hence the current account deficit)
  - tends to appreciate the real exchange rate
  - the higher investment rate raises long run growth.
Short Run Balance of Trade Liberalisation Effects:

Trade liberalisation is:

- **Contractionary** because of:
  - Fixed exchange rate regime
  - Real depreciation $\downarrow$ deflation
  - Nominal wage rigidity $\downarrow$ slower employment growth

- **Expansionary** because of:
  - Short run allocative efficiency gains
  - Increased investment
The Case of Vietnam

- Trade policies favour capital-intensive industries dominated by SOEs.

- “Asian crisis” and the 2000-2001 “global slow-down” caused adverse terms of trade shocks:
  - “Crisis affected” countries expanded commodity exports, reducing Vietnam’s rice and coffee export prices.
  - The “global slowdown” caused all commodity prices to fall.
Trends in World Rice and Coffee Prices

Brazil coffee export price index

Thailand rice export price index
Accelerated Trade Liberalisation – the Solution?

- Faster liberalisation will boost growth in the long run.

- But trade liberalisation could make things worse in the short run by causing:
  - a real depreciation
  - a deflation
  - slower industrial employment growth.

- Determining which requires numerical simulations.
Vietnam’s 2001 Trade Policy Regime

- Nominal protection rates are highest for:
  - food processing (20%)
  - fishing (22%)
  - manufacturing (20%)
Vietnam’s 2001 Trade Policy Regime

- Light manufacturing receives tariff protection yet it is hurt by the trade regime because:
  
  local manufactures are differentiated from imports.
  imported manufactures make up at least a third of total cost.

- For light manufacturing, the cost-raising effects of the protection exceed the demand shifting effects.
The Model

GTAP + Version 5 database

- Open regional capital accounts through “global bank”.

- Regional shares of global investment depend positively on “return on installed capital” and negatively on current regional interest rate.
The Model Continued…

Modifications:

- Forward-looking investors - long run closure supplies expected long run return on installed capital, which is exogenous in the short run.
- Fiscally independent government.
- Direct taxes.
- Private consumption and savings decisions via a reduced form Keynesian consumption equation.
- Money and bonds added \( \bigcup \) regional LM curves.
- Exchange rates between regional monies defined.
- Real exchange rates defined.
- Nominal wage rigidity or stickiness enabled.
Allocative efficiency gains raise labour demand, pushing up the real constant-employment wage of unskilled workers.

In the short run nominal wage stickiness combines with monetary policy to restrain the real wage rise, so industrial employment rises. In effect, the labour supply rises.

Light manufacturing is the most labour intensive of the tradeable goods sectors, so it is most advantaged by the real wage restraint.
20% Liberalisation: Short Run Effects

- Reformed economy has higher long run factor productivity $r$ rise in the expected long run return on installed capital, $r^e$

- Higher $r^e$ increases investment demand in the short run
Domestic capital market – tight capital controls

\[ KA(\mathcal{R}) = S_{NF} - \mathcal{R} \]

\[ r_0 = r^w(1 + \delta) \]

\[ NFI(Y_1 > Y_0, r_e^1 > r_e^0) \]

\[ NFI(Y_0, r_e^0) \]
Current account and the real exchange rate

$\frac{1}{e_R}$

$S_0$

$\frac{1}{e_R^0}$

$\text{NM}(Y_1 > Y_0, \tau^1 < \tau^0)$

$\text{NM}(Y_0, \tau^0)$

$e_R$

$CA+$

$0$

$CA-$
20% Liberalisation: Short Run Effects – Fixed Exchange Rate

- Real depreciation requires a deflation:

\[ e_R = \frac{P}{P^*} \]

\[ \downarrow \]

\[ \bar{E} \]

\[ \downarrow \]
20% Liberalisation: Short Run Effects – Fixed Exchange Rate

- Nominal wage rigidity raises the real wage:

$$w \uparrow = \frac{\bar{W}}{P \bar{Y}} \downarrow$$

- But by less than it would have risen were employment fixed:

$$w \uparrow \uparrow \uparrow = MP_L(\bar{K}_0, \bar{L}_0) \uparrow \uparrow \uparrow$$
20% Liberalisation: Short Run Effects – Fixed Exchange Rate

- The resulting wage restraint increases employment.

- GDP rises by more than the allocative efficiency gain would have delivered in the short run.

- Some of the GDP gain is lost because the capital controls cause the interest rate to rise by more than the expected long run return on installed capital, moderating the rise in investment.
20% Liberalisation: Short Run Effects: Floating Exchange Rate

- Floating rate with CPI (P^c) target.
- Nominal exchange rate can depreciate but it and the GDP deflator must both fall:

\[ P^c = \text{Av} \left\{ P^Y \downarrow, \frac{P^*}{E} \uparrow \right\} \]

- This time the fall in \( P^Y \) is smaller than with the fixed exchange rate.
Nominal wage rigidity raises the real wage by less than with a fixed exchange rate:

\[ W \uparrow = \frac{W}{Y} \downarrow \]

The resulting wage restraint increases employment by more than in the fixed exchange rate case.
Simulation Results With Tight Capital Controls

<table>
<thead>
<tr>
<th>% change in:</th>
<th>Monetary policy targets $E$</th>
<th>Monetary policy targets $P^C$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal exchange rate (US$/\bullet), $E_i$</td>
<td>0.00</td>
<td>-1.27</td>
</tr>
<tr>
<td>Domestic CPI, $P^C$</td>
<td>-1.08</td>
<td>0.00</td>
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<tr>
<td>Domestic GDP deflator, $P^Y$</td>
<td>-1.70</td>
<td>-0.75</td>
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<tr>
<td>Nominal Money supply, $M_S$</td>
<td>-1.86</td>
<td>-0.80</td>
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<tr>
<td>Real effective exchange rate, $e_i^R$</td>
<td>-1.70</td>
<td>-2.02</td>
</tr>
<tr>
<td>Real GDP, $Y$</td>
<td>0.45</td>
<td>0.64</td>
</tr>
</tbody>
</table>
Domestic capital market – relaxed capital controls

\[ r_0 = r^w(1 + \pi_0) \]

\[ NFI(Y_0, r_e^0) \]

\[ NFI(Y_1, r_e^1) \]
Current account and the real exchange rate

\[\frac{1}{e R}\]

\[S_0\]

\[S_1\]

\[NM(Y_1 > Y_0, \tau^1 < \tau^0)\]

\[NM(Y_0, \tau^0)\]
20% Liberalisation: Relaxed Capital Controls and Fixed Exchange Rate

- Real appreciation with a fixed exchange rate requires inflation:
  \[ e_R = E \frac{P^Y}{P^*} \uparrow \]

- Real wage restraint is greater than with tight capital controls.
20% Liberalisation: Relaxed Capital Controls and Fixed Exchange Rate

- GDP rises by more than the allocative efficiency gain would have delivered in the short run.

- There is no rise in the domestic interest rate and so investment rises, contributing further to the GDP gain.

- There is no rise in the domestic interest rate and so investment rises, contributing further to the GDP gain.
20% Liberalisation: Relaxed Capital Controls and Floating Exchange Rate

With CPI ($P_c$) target:

- The inflation required is reduced because the nominal exchange rate can appreciate.

- The real wage restraint in the short run is less than for the fixed rate.

\[
P_c = \bar{A} \int_{P^Y}^{P^*} \frac{P}{E} \quad \text{d}Y
\]
## Simulation Results With No Capital Controls

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<tbody>
<tr>
<td>Nominal exchange rate (US$/\bullet)$, $E_i$</td>
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<td>1.49</td>
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<tr>
<td>Domestic CPI, $P^C$</td>
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<td>Domestic GDP deflator, $P^Y$</td>
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<tr>
<td>Nominal Money supply, $M_S$</td>
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<tr>
<td>Real effective exchange rate, $e_i^R$</td>
<td>1.29</td>
<td>1.88</td>
</tr>
<tr>
<td>Real GDP, $Y$</td>
<td>1.55</td>
<td>1.41</td>
</tr>
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</table>
20% Trade Liberalisation: Alternative Fiscal Policies

- Decline in tariff revenue.

- Fiscal alternatives:
  - Expand fiscal deficit
  - Tax switch

- The ranking assigned to the two fiscal policies depends on the strength of capital controls.
20% Trade Liberalisation: Alternative Fiscal Policies

- **Tight capital controls:**
  - The tax switch outperforms the increased deficit.
  - The expanded fiscal deficit crowds out private investment.
  - The tax switch reduces pressure on the domestic capital market; the real volume of investment therefore rises and this adds sufficiently to aggregate demand that GDP expands by more than in the expanded fiscal deficit case.
20% Trade Liberalisation: Alternative Fiscal Policies

- Ineffective capital controls:
  - The expanded deficit policy outperforms the tax switch.
  - Net inflows on the capital account are now elastic.
  - The extra government borrowing therefore draws in additional saving from abroad.
  - There is no rise in the home interest rate.
  - Inflows on the capital account are larger and these appreciate the real exchange rate by more.
  - Under either monetary policy alternative there is more domestic inflation.
  - Sluggish wages lead to a larger fall in real wages and accelerated employment growth.
Conclusion

- Unilateral trade liberalisation yields the well-known net gains in the long run.
- Short run gains are directionally robust to the macroeconomic policy regime.
- The magnitudes of the short run gains are, however, sensitive to the monetary and fiscal policies adopted.
- Macroeconomic policy rankings are reversed when capital controls are relaxed.
Conclusion

- When capital controls are tight:
  - Floating exchange rate regime outperforms fixed rate.
  - Tax switch outperforms fiscal deficit.

- When capital controls are ineffective:
  - The fixed exchange rate is superior to a floating one in the short run.
  - Expanded fiscal deficit draws in additional savings from abroad and is growth-enhancing in the short run.