Lecture No. 8

The Macroeconomic Impact of Remittances in the Philippines

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Macroeconomic impact of remittances in the Philippines

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Flow of the presentation

- Increasing integration of the Philippines
  - Structural reforms since the 1970s
  - Developments in external balances and exchange rate

- Macroeconomic impact of remittances
  - Effect on money supply
  - Effect on exports, savings, and investments

- External adjustment under integration

- Sectoral impact of remittances
  - Supply- side components
  - Demand- side components

- Policy recommendations
Increasing integration of the Philippines
Structural reforms from 1970s onwards

The Marcos Period (1967-1985)
- Gradual shift towards export-oriented growth strategy
- 1981: structural reform program covering tariff reforms and removal of import restrictions launched
- Late 1983, program stopped due to debt moratorium

The Aquino Period (1986-1992)
- Resumed previous trade liberalization policies. Efforts stymied by coup attempts
- Other reform efforts pursued included the ff:
  - Foreign investment liberalization;
  - Procurement facilitation (thru Build-Operate-Transfer projects)
  - Tax Reform; & the
  - Gradual peso liberalization
Structural reforms from 1970s onwards (cont)

The Ramos Period (1993-1997)
- Built on Aquino reform momentum
- Focused on:
  - liberalization of domestic trade, transportation, & finance;
  - privatization of various state assets &
  - restructuring of the new central bank

- The policy change in RP’s growth strategy culminated with the following:
  - Currency liberalization in ’91-92
  - AFTA (’92) & WTO agreement (’94) ratification
Impacts of full currency liberalization and continuing trade reforms

1. **Exchange rate**
2. **Balance of trade**
3. **Balance of payments**
RP’s BoP episodes

First Phase (Pre-1986 period)
- (-) CA balance due to low (-) trade balance & low (+) capital and financial inflows

Second Phase (1986-1997 period)
- (+) BoP due to robust capital & financial inflows despite high (-) trade balance

Third Phase (1998- present)
- (+) CA balance due to strong positive transfers despite the high (-) trade balance & low capital & financial inflows
- Overall BoP balance no longer affected by changes in capital & financial inflows & declining growth for gross domestic capital formation since ‘96
Changes in external adjustments

How did RP shift from chronic BoP deficit to BoP surplus?

1. Trade balance remains negative.
2. Capital & financial inflows continue to be volatile.
3. OFW remittances inflows are accelerating.

❖ From ’03- ’04, CA balance grew by 465.28%. This coincided with the 12.8% growth of OFW remittances to $8.5-B.
Determinants of the current account balance

OFW remittances are a robust explanatory factor in the reversal of the current account from deficits to surplus (and the subsequent growth) in recent years.

<table>
<thead>
<tr>
<th>Exogenous Variables</th>
<th>Model (1)</th>
<th>Model (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-2.912</td>
<td>-21.774</td>
</tr>
<tr>
<td></td>
<td>(-1.806)</td>
<td>(-4.835)</td>
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<tr>
<td>Net Capital Flows / GDP</td>
<td>-0.777</td>
<td>-0.600</td>
</tr>
<tr>
<td></td>
<td>(-5.068)</td>
<td>(-4.955)</td>
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<tr>
<td>Exchange rate change (%) (previous period)</td>
<td>0.221</td>
<td>0.214</td>
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<tr>
<td></td>
<td>(2.896)</td>
<td>(3.789)</td>
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<tr>
<td>GDP Growth</td>
<td>0.692</td>
<td>0.408</td>
</tr>
<tr>
<td></td>
<td>(2.485)</td>
<td>(1.880)</td>
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<tr>
<td>Log of Remittances</td>
<td></td>
<td>1.723</td>
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<tr>
<td></td>
<td></td>
<td>(4.344)</td>
</tr>
</tbody>
</table>

| Adjusted R-squared | 0.594 | 0.776 |
| DW                 | 0.934 | 1.505 |
| AIC                | 5.404 | 4.840 |
| SBC                | 5.598 | 5.082 |

*Figures in parenthesis are t-statistics.*
Impact of OFW remittances on the GIR

A depreciated NER raises the GIR level working through the international price-competitiveness of exports and OFW remittances.

Inclusion of the logarithm of OFW remittances in the equation significantly improves the explanatory power of the model (increased adjusted r-squared from 83.7% to 88.4%).
But, the most visible effect of remittances is in the peso appreciation & the rise in investor confidence on RP’s ability to pay its debts…
• High remittance inflows → more benign BOP levels
• Change in investor perception: from CA deficits to CA surpluses.

Source: BSP

CA balance: from deficits to surpluses
Rising net foreign assets

Share of Net Foreign Assets to Total Assets, 5-year averages

<table>
<thead>
<tr>
<th>Year</th>
<th>5-Year Averages</th>
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<tbody>
<tr>
<td>1985</td>
<td>-75.3</td>
</tr>
<tr>
<td>1990</td>
<td>-57.7</td>
</tr>
<tr>
<td>1995</td>
<td>9.1</td>
</tr>
<tr>
<td>2000</td>
<td>8.7</td>
</tr>
<tr>
<td>2005</td>
<td>21.5</td>
</tr>
<tr>
<td>2007*</td>
<td>38.3</td>
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</tbody>
</table>

- Since 2000, the share of net foreign assets to total assets has risen over time→ more investor confidence on RP’s ability to pay its debts
Macroeconomic impact of remittances
Macroeconomic impact of remittances

Effects of OFW remittances went thru the following:

1. Money Supply
   - Mixed effect on monetary policy
   - Remittances is huge boost to the economy

2. Exports, savings, investments
   - Drop in RP exports cost competitiveness
   - Decline in importance of investments
     - Dutch disease affecting OFW deployment and manufacturing & export industries
   - S-I Gap
External adjustments under rising integration
Channels of RP’s rising integration

**Real economy**
- Improved & stabilized growth prospects
- Disengaged production & consumption constraints
  - Raised pressure on previously protected industries
  - Opened alternatives for production factors, e.g. labor
  - Raised savings rate amidst low investment rate

**Labor flows**
- Encouraged workers to consider overseas employment as viable alternative → rise in reservation wage (likely?)

**International finances**
- Eased RP’s financial constraints and led to the peso’s steady appreciation. But this led to two effects…
- Made difficult BSP’s liquidity tightening activities
Sectoral impact of remittances
Sectoral impact of remittances: Supply-side

Trends in RP’s growth rate

- Early ‘80s, regulation of foreign exchange market limited access to foreign resources

- Mid 80s, RP’s structural programs coincided with US recession → big drop in RP’s real GDP

- Since ’02, RP appears to have settled on higher growth path
Sectoral impact of remittances: Supply-side (cont)

- Rising contribution of Services sector for the past two decades

Source: NSCB
Contribution of Broad Industrial Sectors to GDP Growth, 1980-2007

Employment Shares by Industry, 1988-2005

**Sectoral impact of remittances: Supply-side (cont)**

- In ’80, output share for Services (40.5%), Industry (35.9%) & AFF (23.5%)
- In ’07, output share for Services (49.2%), Industry (23.5%) & AFF (18.3%).
- Employment share of Services rises together w/ growth in its output share.

Source: NSCB
PCE growth helped boost RP’s GDP

Average Annual Growth in Demand Components

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<tr>
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</thead>
<tbody>
<tr>
<td>1. Personal Consumption Expenditure</td>
<td>1.15</td>
<td>4.79</td>
<td>3.22</td>
<td>3.84</td>
<td>4.73</td>
<td>5.74</td>
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<tr>
<td>2. Government Consumption</td>
<td>-2.81</td>
<td>5.56</td>
<td>2.90</td>
<td>3.89</td>
<td>-0.76</td>
<td>8.06</td>
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<tr>
<td>3. Capital Formation</td>
<td>-12.62</td>
<td>16.08</td>
<td>1.44</td>
<td>5.17</td>
<td>-2.23</td>
<td>5.94</td>
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<tr>
<td>A. Fixed Capital</td>
<td>-8.98</td>
<td>11.92</td>
<td>2.23</td>
<td>5.39</td>
<td>-2.70</td>
<td>5.37</td>
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<tr>
<td>1. Construction</td>
<td>-8.47</td>
<td>8.61</td>
<td>0.30</td>
<td>9.78</td>
<td>-6.94</td>
<td>11.60</td>
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<tr>
<td>2. Durable Equipment</td>
<td>-11.15</td>
<td>18.27</td>
<td>4.01</td>
<td>1.13</td>
<td>1.22</td>
<td>0.45</td>
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<tr>
<td>3. Breeding Stock &amp; Orchard Dev't</td>
<td>-2.34</td>
<td>2.52</td>
<td>2.43</td>
<td>4.79</td>
<td>1.25</td>
<td>2.07</td>
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<td>B. Changes in Stocks</td>
<td>-203.20</td>
<td>-191.06</td>
<td>-31.60</td>
<td>-197.52</td>
<td>-232.84</td>
<td>31.58</td>
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<tr>
<td>4. Exports</td>
<td>-2.36</td>
<td>9.67</td>
<td>9.58</td>
<td>5.30</td>
<td>4.89</td>
<td>7.05</td>
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<tr>
<td>A. Total Merchandise Exports*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.06</td>
<td>6.57</td>
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<tr>
<td>B. Non-Factor Services*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.98</td>
<td>9.60</td>
</tr>
<tr>
<td>5. Imports</td>
<td>-6.95</td>
<td>16.54</td>
<td>9.75</td>
<td>2.75</td>
<td>5.58</td>
<td>-1.84</td>
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<tr>
<td>A. Total Merchandise Imports*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.73</td>
<td>-2.71</td>
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<tr>
<td>B. Non-Factor Services*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-7.70</td>
<td>12.70</td>
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<tr>
<td>GROSS DOMESTIC PRODUCT</td>
<td>-1.27</td>
<td>4.73</td>
<td>2.17</td>
<td>3.93</td>
<td>4.47</td>
<td>6.39</td>
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<tr>
<td>GROSS NATIONAL PRODUCT</td>
<td>-1.86</td>
<td>5.39</td>
<td>2.84</td>
<td>4.71</td>
<td>4.91</td>
<td>6.94</td>
</tr>
</tbody>
</table>

Source: NSCB

- Growth rate of the PCE w/c is connected to OFW remittances
- Negative growth rate for Capital Formation, affected by governance and cost competitiveness issues
Rising contribution of PCE to total output

Contribution of Demand Components to GDP Growth, 1980-2007

Source: NSCB
Policy recommendations
Policy recommendations

- Remedy the bottlenecks which raise RP’s business environment

- Maximize use of OFW inflows as alternative funding for country’s soft and hard investment

- Raise the quality of its labor force for it move up the value chain in outsourcing

- Craft social safety nets to minimize income inequality caused by OFW remittances
Increasing Integration of the Philippines

- Despite curbs in foreign exchange transactions, steep drop in peso’s NER & NEER & REER from ’80-’85
- Full liberalization in ’92 → gradual peso appreciation until the Asian Financial Crisis

Source: Bangko Sentral Pilipinas (BSP)
Increasing Integration of the Philippines

Balance of Trade (in million Pesos)

• ‘85 Economic Crisis → huge import drop → trade deficits in ’86-’87

• Fast REER appreciation → cost competitiveness declined → trade deficits from ’89-’99,

• Drastic NEER depreciation → trade surpluses in ’00-’01 & ’07

Source: BSP
Increasing Integration of the Philippines

Balance of Payments and its Components (in million Pesos)

- In ’86, returning investor confidence sparked entry of capital & financial inflows, turning positive until ’97
- Massive capital inflows → Real estate & finance sector bubble
- From $6.5-B surplus in ’97 this dropped to $904-M in ’98 and finally turned into deficits until ‘05. Turned into surplus after return of foreign funds in RP since ’06.

Source: BSP
Trade balance has been negative except for select years

Except for brief periods, trade balance has always been negative

Exports and Imports (as % of Nominal GDP)

Source: NSCB
Growth of remittances since ‘98

OFW Remittances (Trend and Growth Rate)

- In ’98, role of remittance became obvious
- Since ’02, growth rate of remittances began to accelerate

Source: BSP
Changing profile of RP’s current account

Components of the Current Account

- OFW remittances account for almost half of the Current Account.
- Indicates the dominance of transfers in the current account balance.

Source: BSP
Rising portion of remittances to CA balance

Ratio of OFW Remittances to Current Account Balance

- More efficient use of foreign exchange revenues after the ’91-’92 currency liberalization.

Source: BSP
Rise in RP’s monetary base for past 25 years

- RP’s monetary base has been rising for almost 25 years now.
- Except for lapses in ’99 & ’06, the BSP has contained the liquidity rise as proven by the rising GIR

How did the BSP manage to do this? More importantly, at what cost?

Source: BSP
Impact of remittances on liquidity growth

- From ’83 – ’98, M1 growth has remained below 25%
- In ’99 however, M1 growth hit 40%, coinciding with the rise in OFW remittances

BSP’s Main Problem:
How do they deal with the rise in MB due to foreign exchange remittances?

Special Deposit Accounts (SDA)

Source: BSP
How SDAs work

SDAs widened the scope of funds that can be deposited to the BSP. It resorted to the use of SDAs after it ran out of government securities to conduct its open market operations.

- First, SDA interest rates were then set at a high-enough level, outbidding the private sector for securities up to the volume needed in mopping up liquidity.

- Crowding out was avoided due to underlying presence of liquidity

- Then high level of SDA deposit rates however still kept borrowing rates relatively higher than it would have been without the intervention.

**MAIN DRAWBACK:** BSP pays high interest rates for the funds
Downtrend in M1 velocity since ‘06

- Visible downtrend for M1 velocity since its use

Source: BSP; Author’s own computations
Movement of S-I Gap since the 1970s

Savings-Investment Gap

- From ’89- ’02, S-I Gap has been negative
- Since ’02, S-I gap turned positive though investments has been dropping since ‘01

Source: BSP
**Effect of remittances on S-I gap**

**Dependent variable. Savings-Investment Gap as percentage of GDP**


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<td>Intercept</td>
<td>-484.108</td>
<td>-448.807</td>
</tr>
<tr>
<td></td>
<td>(-6.430)</td>
<td>(-6.210)</td>
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<tr>
<td>Log (GDP)</td>
<td>52.394</td>
<td>50.638</td>
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<tr>
<td></td>
<td>(7.895)</td>
<td>(8.135)</td>
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<tr>
<td>Exchange Rate</td>
<td>0.326</td>
<td>0.303</td>
</tr>
<tr>
<td></td>
<td>(4.620)</td>
<td>(4.553)</td>
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<tr>
<td>Log (M3)</td>
<td>-17.781</td>
<td>-18.883</td>
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<tr>
<td></td>
<td>(-11.424)</td>
<td>(-12.135)</td>
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<tr>
<td>91-day Treasury Bill</td>
<td>-0.454</td>
<td>-0.398</td>
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<tr>
<td></td>
<td>(-3.762)</td>
<td>(-3.431)</td>
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<td>Remittances / GDP (previous year)</td>
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<td>0.633</td>
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<tr>
<td></td>
<td></td>
<td>(1.897)</td>
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<tr>
<td>Adjusted R-squared</td>
<td>0.912</td>
<td>0.924</td>
</tr>
<tr>
<td>DW</td>
<td>1.777</td>
<td>1.849</td>
</tr>
<tr>
<td>AIC</td>
<td>4.119</td>
<td>3.999</td>
</tr>
<tr>
<td>SBC</td>
<td>4.368</td>
<td>4.297</td>
</tr>
</tbody>
</table>

_Figures in parenthesis are t-statistics._
Effect of the peso’s steady appreciation

First, it reduced the price competitiveness of domestic products for both export and domestic consumption and,

Second, it led to a large and persistent balance of trade deficit but an increasing current account surplus. Thus:

- product market integration has allowed the economy to import both final and intermediate products from other countries; and

- capital market integration allowed the separation of exports and imports without the pressing need for the exchange rate adjustments.

In short, robust remittances financed RP’s trade deficit.