

Macroeconomic determinants of remittances and growth in the Dominican Republic

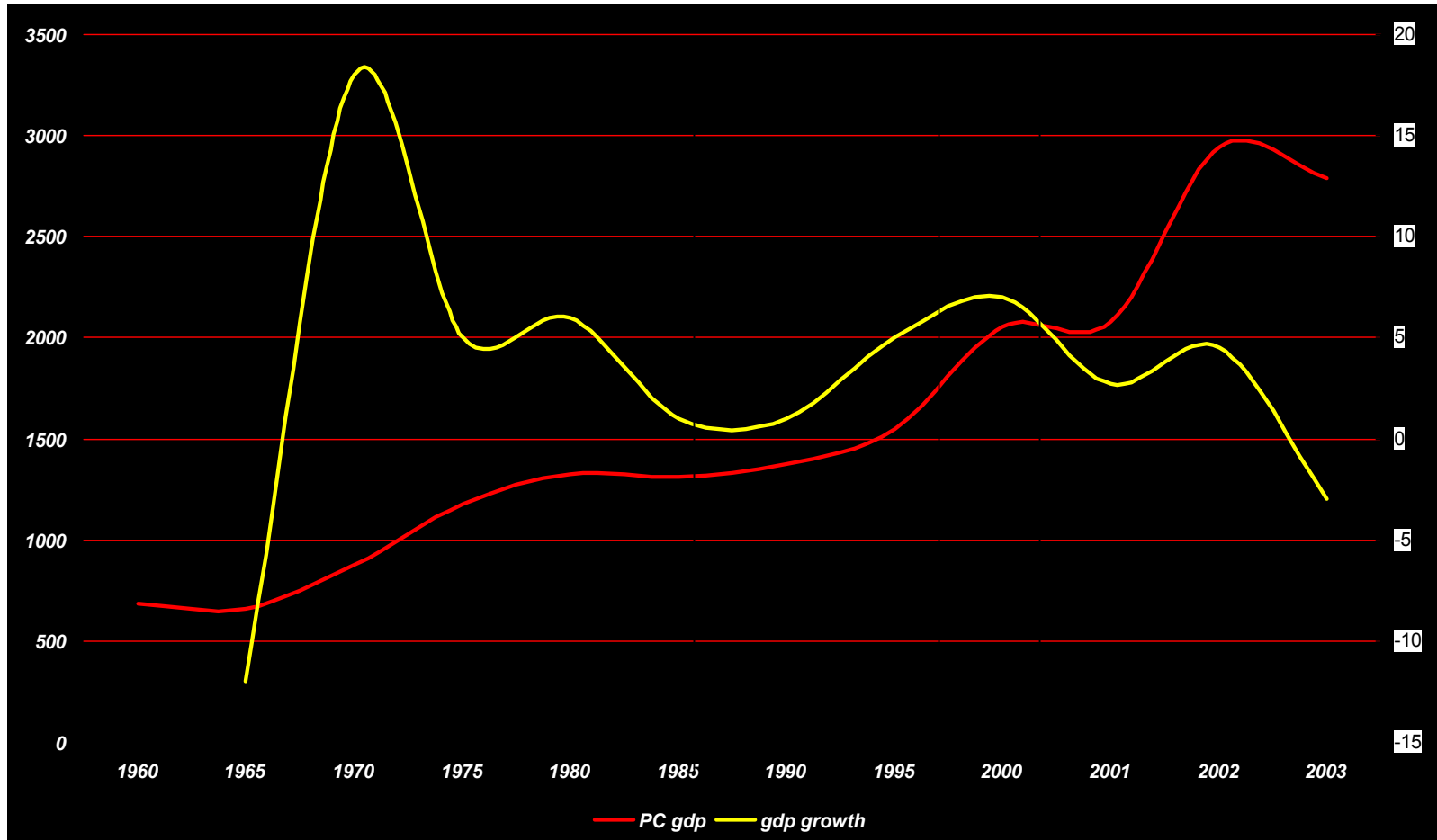
November 23rd, 2004

Columbia University

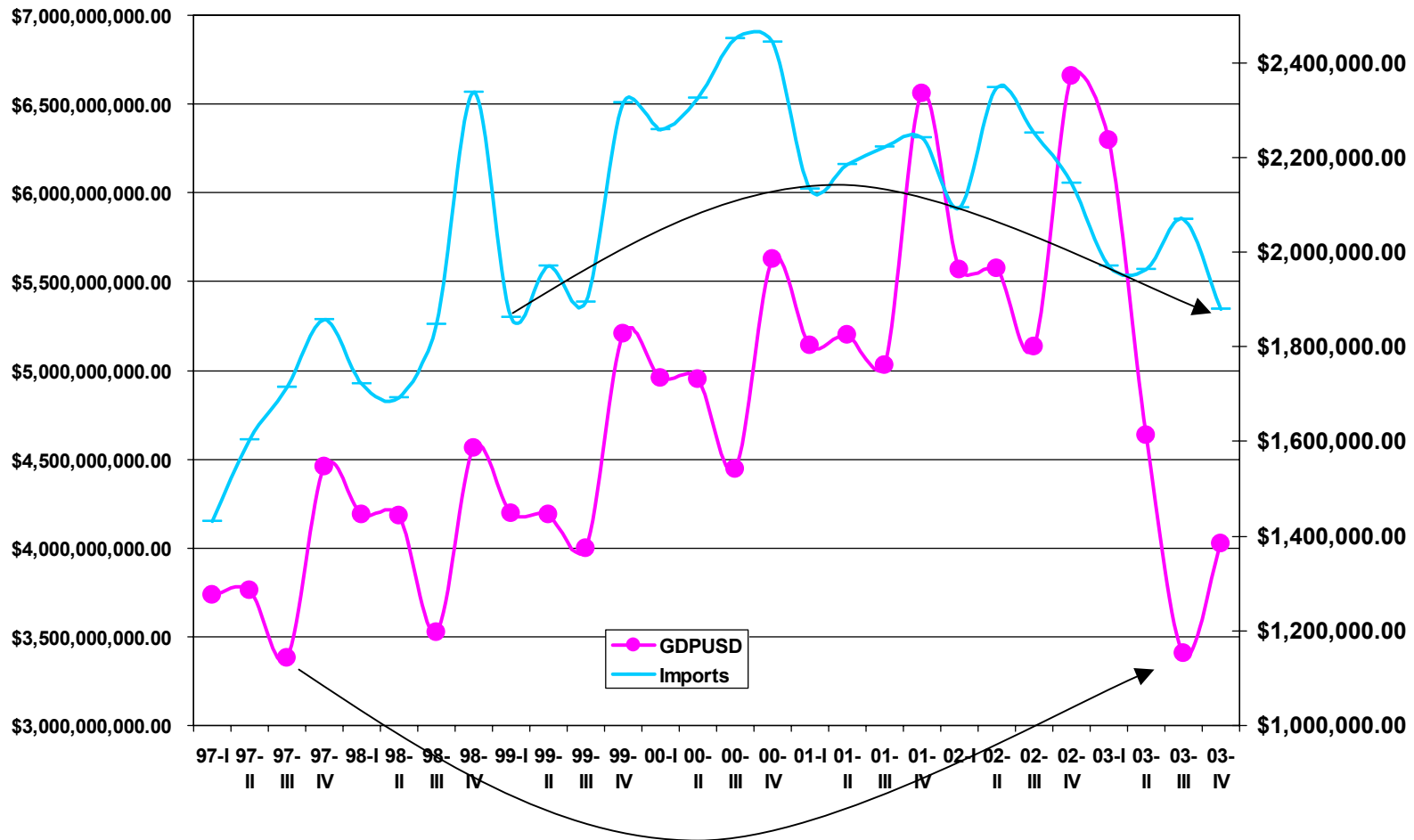
Economic dynamics of remittances

1. Benefit to households
- 2. Distributive nature**
 1. Rural Sector
 2. Country
- 3. Macro-economic Impact**
 1. FC source
 2. Counter-cyclical role
 3. Determined by macro-economic shifts
 4. Multiplying effect
 5. Effect on economic growth
4. Tied to finance: savings, credit, investment
5. Part of a broader process: The 5Ts

Dominican Republic: Economic growth



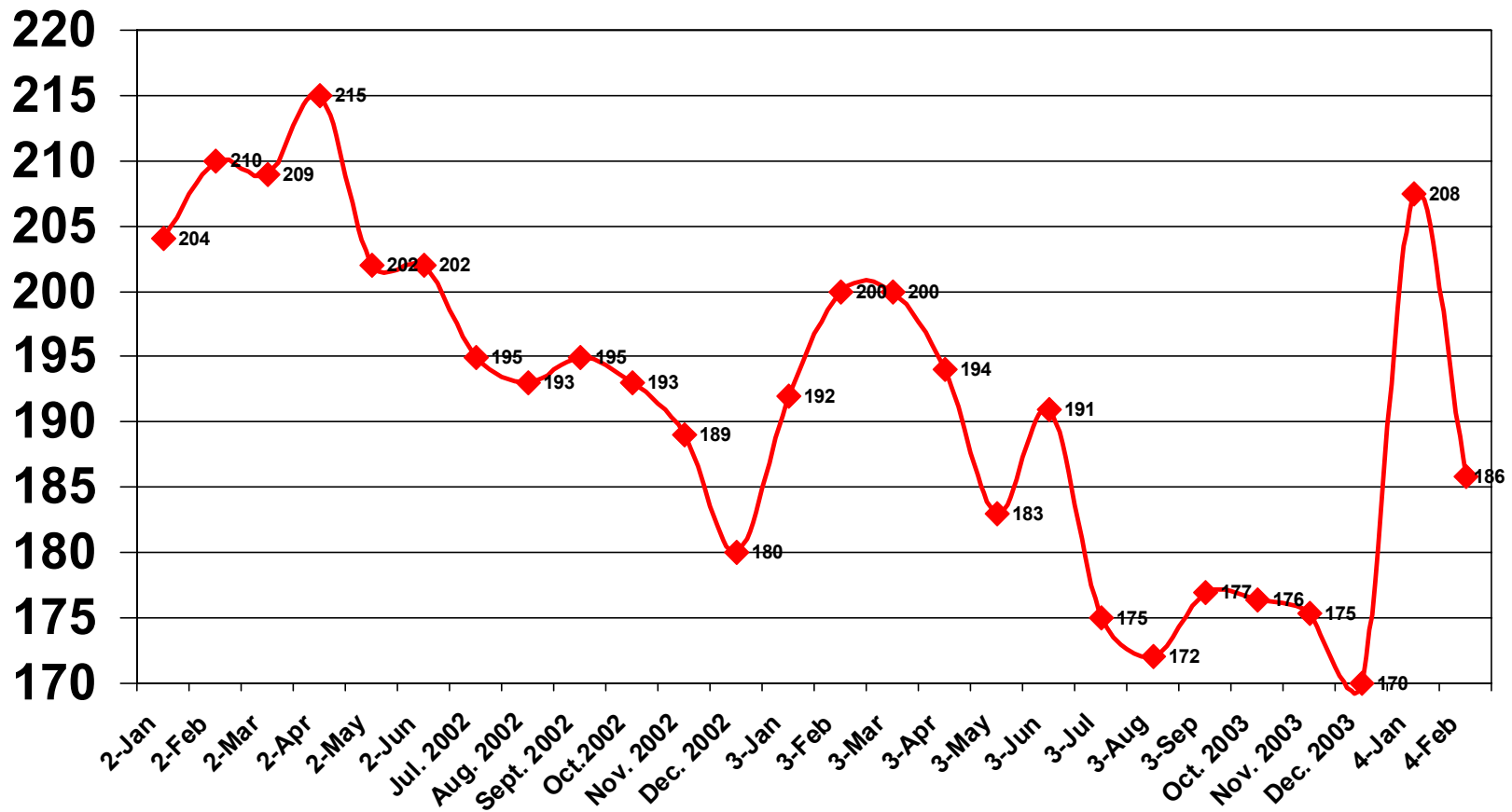
Dominican Republic: Quarterly GDP and imports, 1997-2003



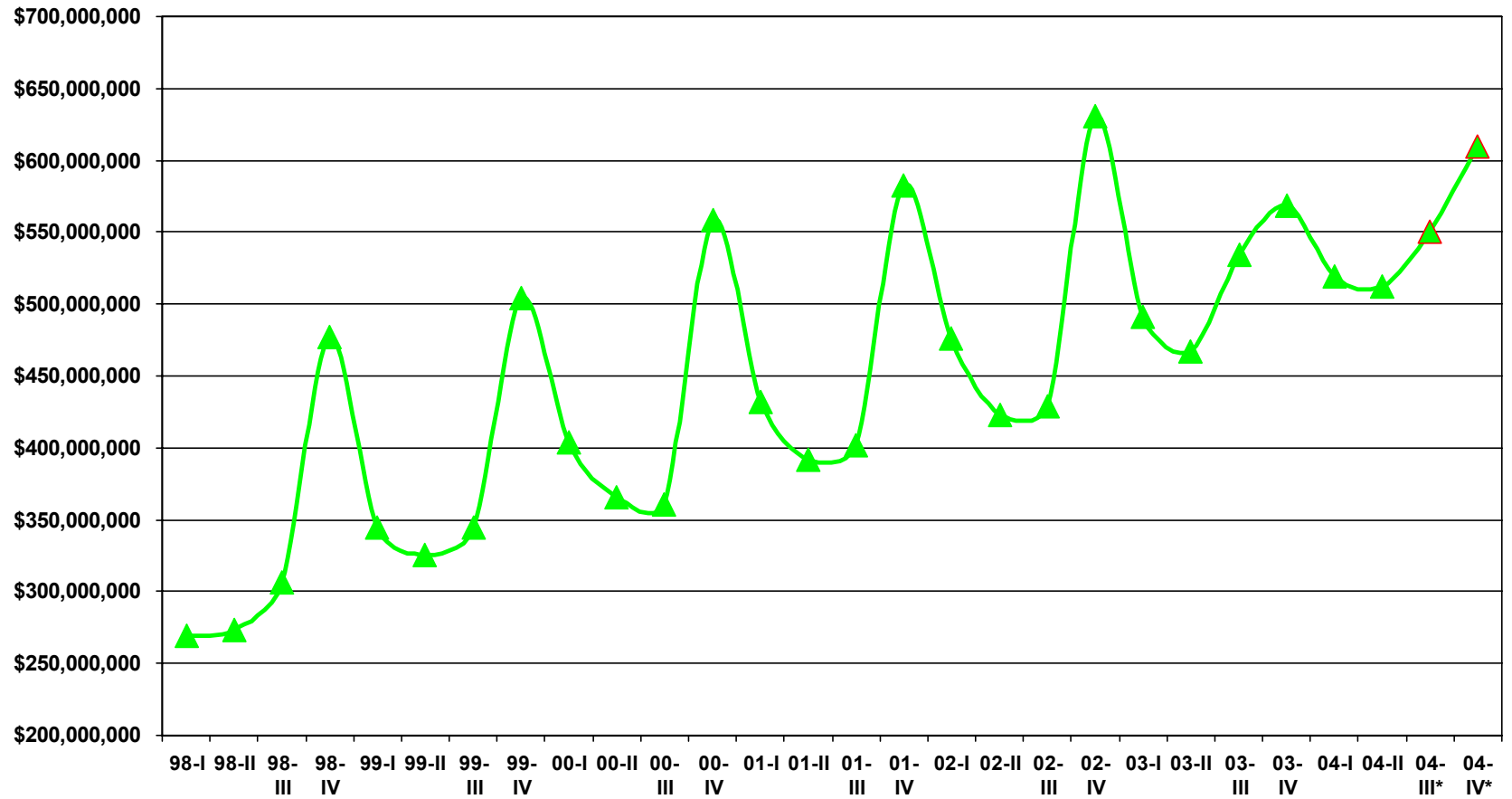
Dominican Republic: Economic deterioration



Average amount sent by a Dominican



Dominican Republic: Quarterly Remittances, 1997-2003



Macroeconomic determinants

- *Do remittances respond to economic shifts?*
- *How do remittances respond in the D.R.?*
- *Inflation*: an increase in prices affects a household cost of living and thus prompt immigrants to increase their support to relatives at home;
- *Interest rates (lending)*: as lending rates decline, investment increases;
- *Foreign exchange*: an increase in the supply of foreign currency may appreciate local currency.
- *Unemployment_{DR}*: downward shifts in employment cause adjustment measures and new forms of income;
- *Unemployment_{USA}*: same as above

$$R_{DR\ t-1} = CPI_{DR} + HispUn_{US} + FX_{DR} + IR_{DR}$$

(+) (-) (?) (-) [Expected sign in the statistical relationship]

Where,

$R_{DR\ t-1}$ = Monthly remittance transfers to the D.R. (lagged values)

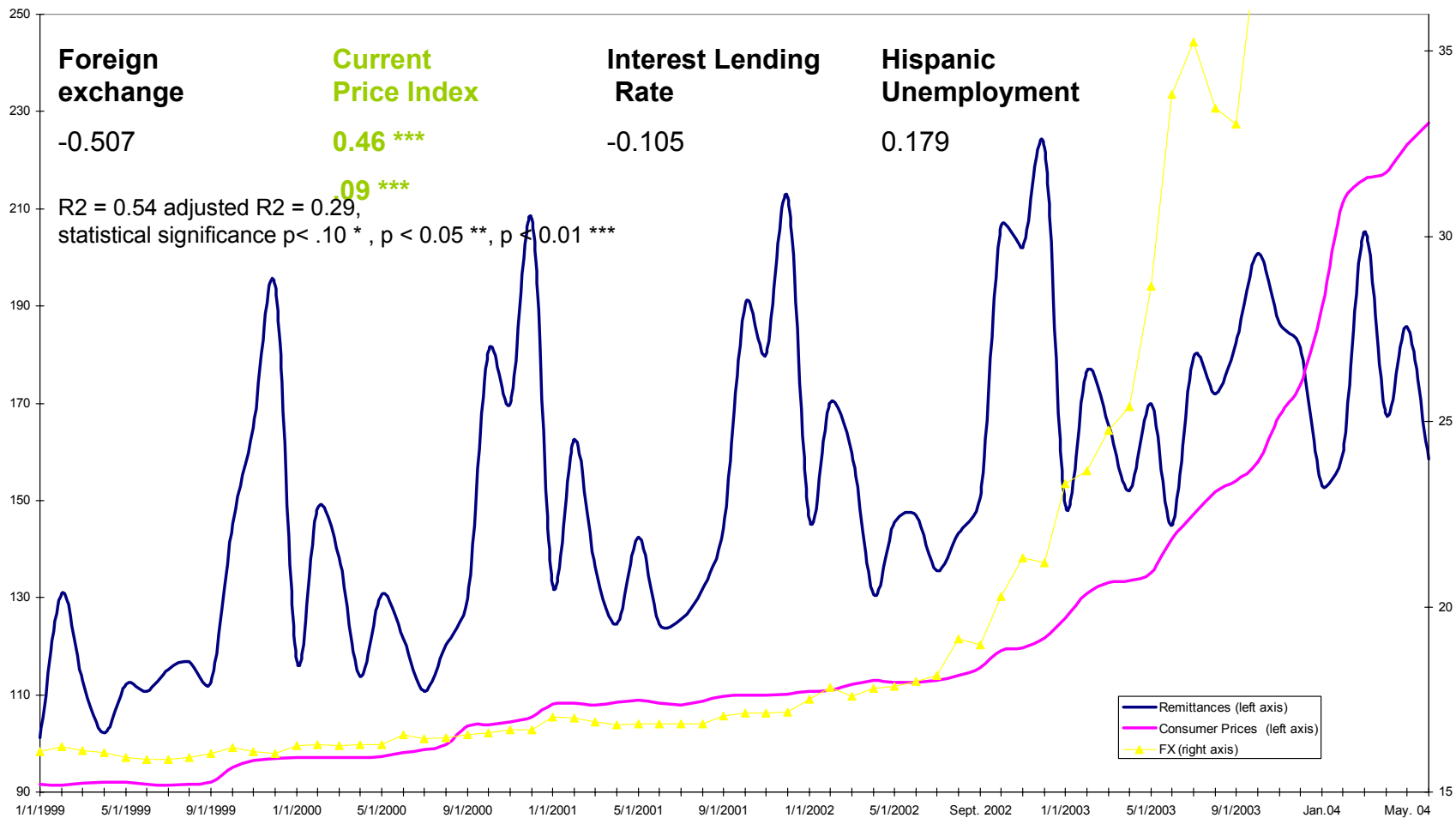
$HispUn_{US}$ = Monthly unemployment in the U.S. among Latino immigrants

CPI_{DR} = Consumer price index in the D.R.

FX_{DR} = Foreign exchange (nominal) in the D.R.

IR_{DR} = Interest lending rate in the D.R.

Dominican Republic: Remittances, prices, interest and exchange rates



Significance: basic support, women, age, income

- Home country variations in exchange rates and unemployment in the U.S. among Latinos does not have an effect on transfers.
- Market of transfers occur independently from exchange rate variations: under the economic crisis affecting devaluation, remittance transfers, and the control of its volume by companies, were not related to exchange rates.
- There is also correspondence between microeconomic and macroeconomic determinants: family commitment will increase with need and number of beneficiaries, and commitment.

Administration of remittances

OLS Regression on amount remitted

	Dominican Rep.
Food	80%
Clothing	25.3%
Education	21.3%
Housing	32.7%
Business	4.0%
Savings	8.0%
Other	14.0%
Unknown/NR	2.7

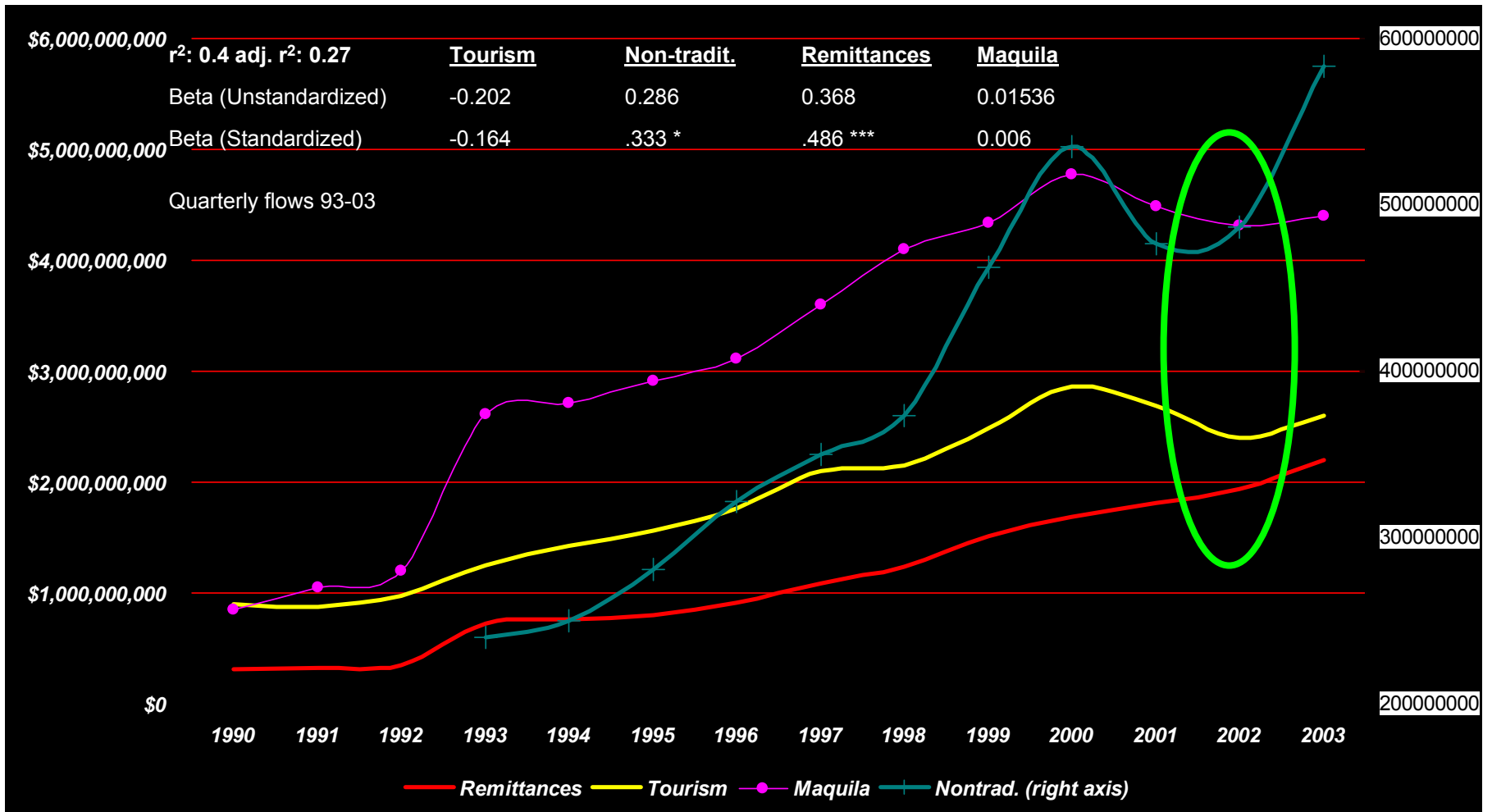
	B	Beta
Having bank account	-22.584	-.056
Schooling	-10.038	-.086
Number of beneficiaries	12.994	.168 ***
Sex	6.745	.019
Income	25.964	.128
Length of time receiving remittances	13.042	.135 **
House caretaker	-.925	-.003

Source: Orozco, Manuel. Survey conducted by the author.

Economic growth in the age of transnationalism and globalization

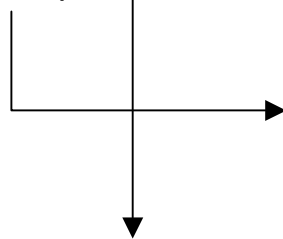
- Pablo Rodas (2000) economic integration is reflected in terms of “the commercial flows (manufactures, agricultural products, and tourism) and the flow of factors of production (migration and foreign investment).” (p.17)
- William Robinson (2003) a transnational model in Central America and the D.R. is observed in terms of “production of export-processing factories (of clothes in particular), transnational services (especially tourism), export of non-traditional agricultural products, and remittances sent by Central Americans working in the United States” (p.539).
- **$GDP_{dr} = Remit_{dr} + Tourism_{dr} + Maquila_{dr} + Non\text{-}traditionals_{dr}$**

Dominican Republic: Remittances, non-trad exports, tourism, and maquila



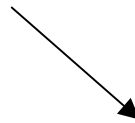
The national income equation in Latin America: a rent seeking and courtesan state?

$$\text{GDP: } (X-M) + I + G + C$$



- Maquila, Tourism, Non-traditional exports
- Transportation, Telecommunication, Nostalgic Trade

- DOMESTIC SAVINGS - INVESTMENT
- FOREIGN SAVINGS - INVESTMENT



- FDI: Transnational capital, migrant capital investment
- TECHNOLOGY TRANSFER
- UNILATERAL TRANSFERS



- ODA -> BILATERAL & MULTILATERAL
- PRIVATE DONATIONS
 - > FOUNDATIONS, PPOs, HTAs
- WORKER REMITTANCES

*Immigrant economic practices
(annual expenses)*

Family remittances



Household economy
(US\$270)

Donations



Community
(US\$10,000 year)

Consumption



Trade and
services retail
(US\$3,000)

*Capital
investment*

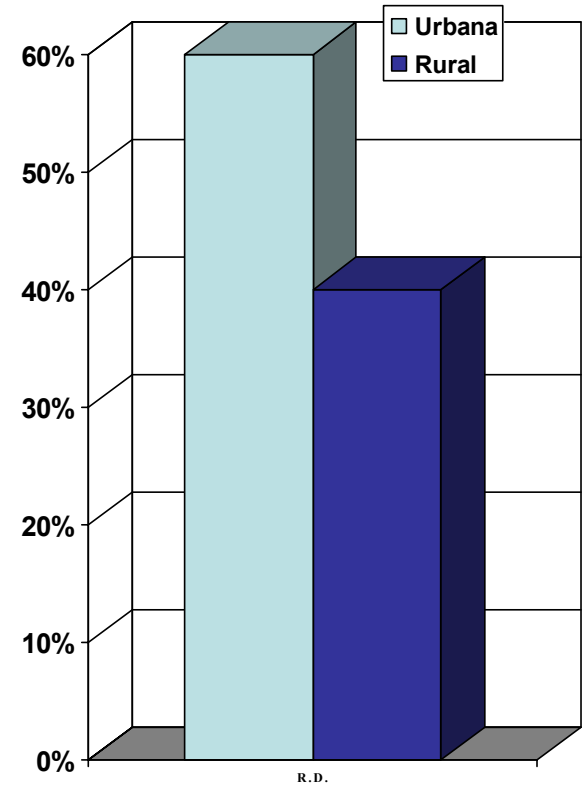
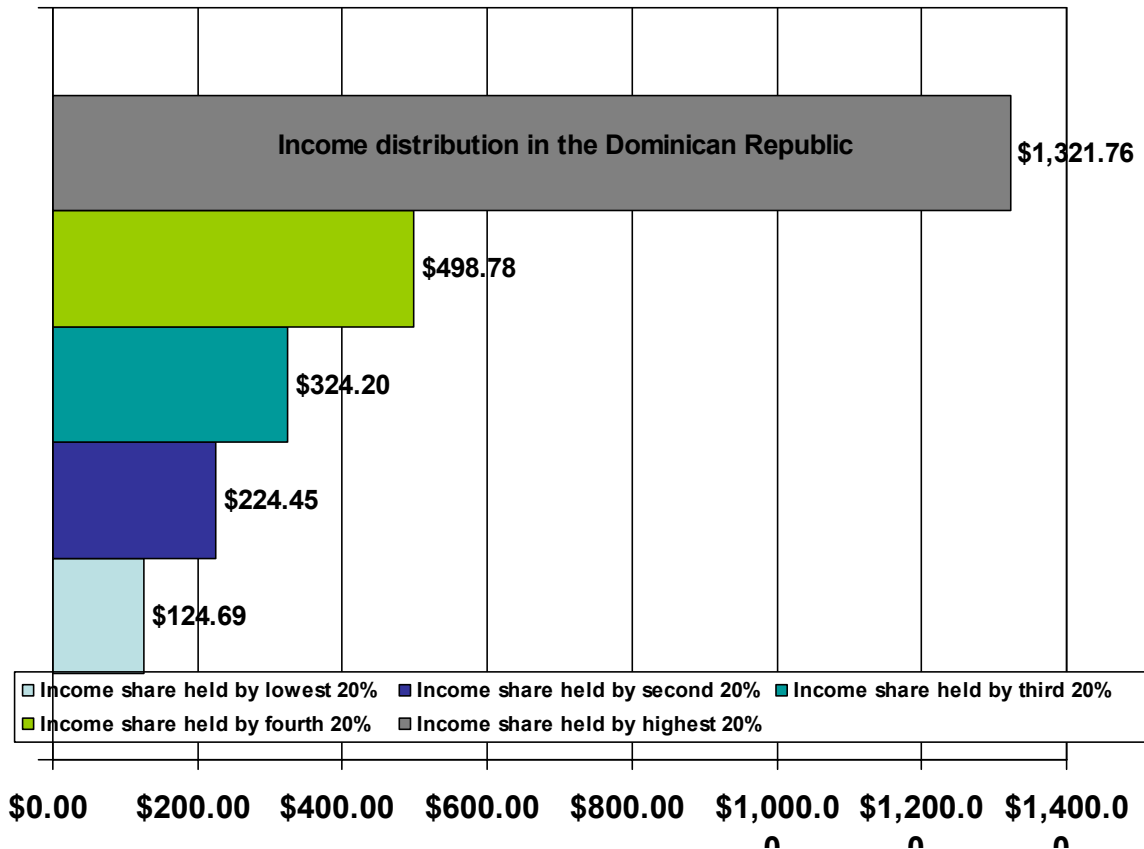


Property
and other I
(US\$5,000)

Policy implications

- Remittances respond to economic indicators, particularly inflation.
- They also conform to micro-determinants to provide basic assistance to as many people as possible;
- These efforts do contribute to economic growth and reflect a counter cyclical behavior
- An economic policy that seeks to increase migrant foreign savings and investment to stimulate the economy can induce a response of remittances to other indicators like interest rates.
- This also calls attention that remittances play an important role in increasing domestic consumption without dramatically affecting an increase in imports;

Remittance recipient households



Source: Emmanuel Sylvestre & Associates survey (commissioned out by the author); Income distribution: World development indicators, World Bank, 2003.