

Private Transfers in Comparative Perspective

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Outline

- Introduction
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 - Evolutionary perspectives
 - Economic theory
- Measurement of Private Transfers
- Transfers in the National Transfer Accounts
 - How important relative to GDP?
 - Inter vs Intra household transfers
 - Bequests
- Age Profiles of Per Capita Transfers
 - Net per capita within household transfers (intrahousehold)
 - Age Profiles of per capita net between household transfers (Interhousehold)
 - Age Patterns of Gross Transfer Flows Within the Household (Intrahousehold)
- Private Transfers to Elderly
- Transfers to Children and Investment in Human Capital
- Private Transfers to Children in Relation to Private Transfers to the Elderly
- Private vs Public Transfers

In evolutionary past

- Children were nutritionally dependent until age 20
- Massive transfers from parents and others were required to feed them
- People remained net producers until death
- Virtually no upward transfers to elderly
- All transfers were private
- No asset accumulation

Today...

- Children are still dependent until 20 or later
- Still require massive transfers
- But now public sector mediates transfers for education, health care
- Private transfers are less important for kids
- Elderly no longer work much
- Instead, they receive major public transfers
- Assets are now important and help fund retirement consumption.

What is a “transfer”?

- An item of value given to another with no quid pro quo.
- We can't know if a transaction is a transfer unless we know the motives and expectations of both actors.
- In NTA we estimate presumptive transfers; we believe they are mostly transfers, but we cannot be sure and must consider whether they are actually exchanges.

Economic Theory

- Rich theory relating fertility, investments in human capital, which are transfers to children, and old age support. This theory brings in economic context, institutions, and the public sector.
 - Becker
 - Becker and Barro
 - Willis
 - others
- Not time to present it now; I will sketch it.

- Parents are altruistic toward children, but also concerned about own consumption and old age.
- They make transfers to children for human capital (HK) up to a point.
 - Planned transfers to a child are also the price of that child.
 - The greater the planned transfers, the lower is fertility.
- Beyond that point, kids may borrow from their parents to get more HK.
 - Repay by supporting parents in old age.

Many contextual factors matter

- Are the returns to HK greater than interest rate?
- Are parents rich or poor?
- Does the culture, religion, or law enforce repayment by children?
- Is there public education?
- Are there public pensions?

Theory (cont.)

- If the rate of return to HK exceeds the market rate of interest,
 - parents limit their fertility in order to invest in each child's HK
 - The optimal investment is to the point where the rate of return drops to the rate of interest.
 - Beyond that, it is better for parents to leave bequests.
- Parents who are poor or less altruistic want to invest (transfer) less
 - Need money for self

If parents invest less than the optimal amount in each child due to limited altruism or poverty

- It is efficient for kids to borrow to pay for additional education.
- But usually can't borrow in market.
- So perhaps borrow additional money from parents to get more education
 - Later repay loan ***as old age support.***
- Then “transfers” to elderly rise as income rises.

Many contextual factors modify the predictions of the theory

- Are parents highly altruistic toward kids? (culture, religion)
- Do institutions support repayment of loans to children for higher education (for example)? (culture, society, laws, religion)
- Are returns to human capital high?
- Is income low or high?
- Is there public education?
- Are there public pensions?

Some predictions

- Poor countries, low returns to HK
 - High fertility because children have low price
 - Little HK
 - Low familial old age support
 - Perhaps bequests of property.
- After income and return to HK start to rise
 - More parental investment in HK
 - Moderate fertility because kids have higher price
 - More old age support
 - ***But what about public sector, pub ed, pub pensions?***

Some predictions (cont.)

- At higher incomes, and high return to HK
 - Heavy investment in HK
 - Very low fertility because kids have high price
 - Parents rich enough to invest optimally in HK and also to provide for own old age
 - So little familial old age support.
- But at this stage, and previous, much depends on public transfers to children and elderly. Diff outcomes are possible.

Other considerations

- Are children altruistic toward their parents?
- Is there heterogeneity across countries in the general strength of altruism in both directions?

Dynastic altruistic utility

$$U_j = V(c_j) + da(n_j)n_jU_{j+1}$$

Kinds of private transfers we measure

- Intrahousehold transfers
 - To children
 - Private education
 - Private healthcare
 - Other consumption (food, housing, clothes, etc.)
 - To elderly (food, housing, clothes, etc.)
 - To spouse
 - To head of household if member has surplus
- Interhousehold transfers—usually money
- Bequests at death

How do we measure bequests?

- Surveys give asset holdings by age.
- Assume mortality is independent of asset holdings
 - We hope to relax this false assumption later
- Then we have bequests made by age.
- For each age of death, we can calculate the age distribution of surviving children.
- We divide up the bequest equally among all of these, so have recipient by age.
- For childless death, bequest goes to same age sibling.
- Only a few countries have estimated bequest transfers so far.

How do we measure interhousehold transfers?

- Category includes
 - Child support following divorce
 - Alimony following divorce
 - Charitable contributions
 - Gifts between family and friends that do not share a household
- Surveys record payments given and received for households.
 - We assume these all occur to and from the household head
 - These data may be of poor quality, and there are no national control totals to use in adjusting them.
 - Do have aggregate net private transfers at national level
 - These are mostly net remittance flows to and from families abroad.
 - These can be substantial.
- Some surveys, like the US HRS and European SHARE type surveys have higher quality data on interhousehold transfers for the older population.
 - These will be used to evaluate and improve our current estimates.

How do we measure intrahousehold transfers? ***Complicated!***

- (Leave explanation, because NTA participants already know all this.)

How do we measure intrahousehold transfers?

- Measure consumption by each individual
(later talk)
- Measure labor income for each individual

How big are transfers relative to GDP?

- Calculate aggregate transfers received within and between households (gross flows)
- Calculate aggregate public transfers that are age-related; ignore non age-related like military, most social infrastructure, other public and quasi public goods.
- Consider these relative to GDP.

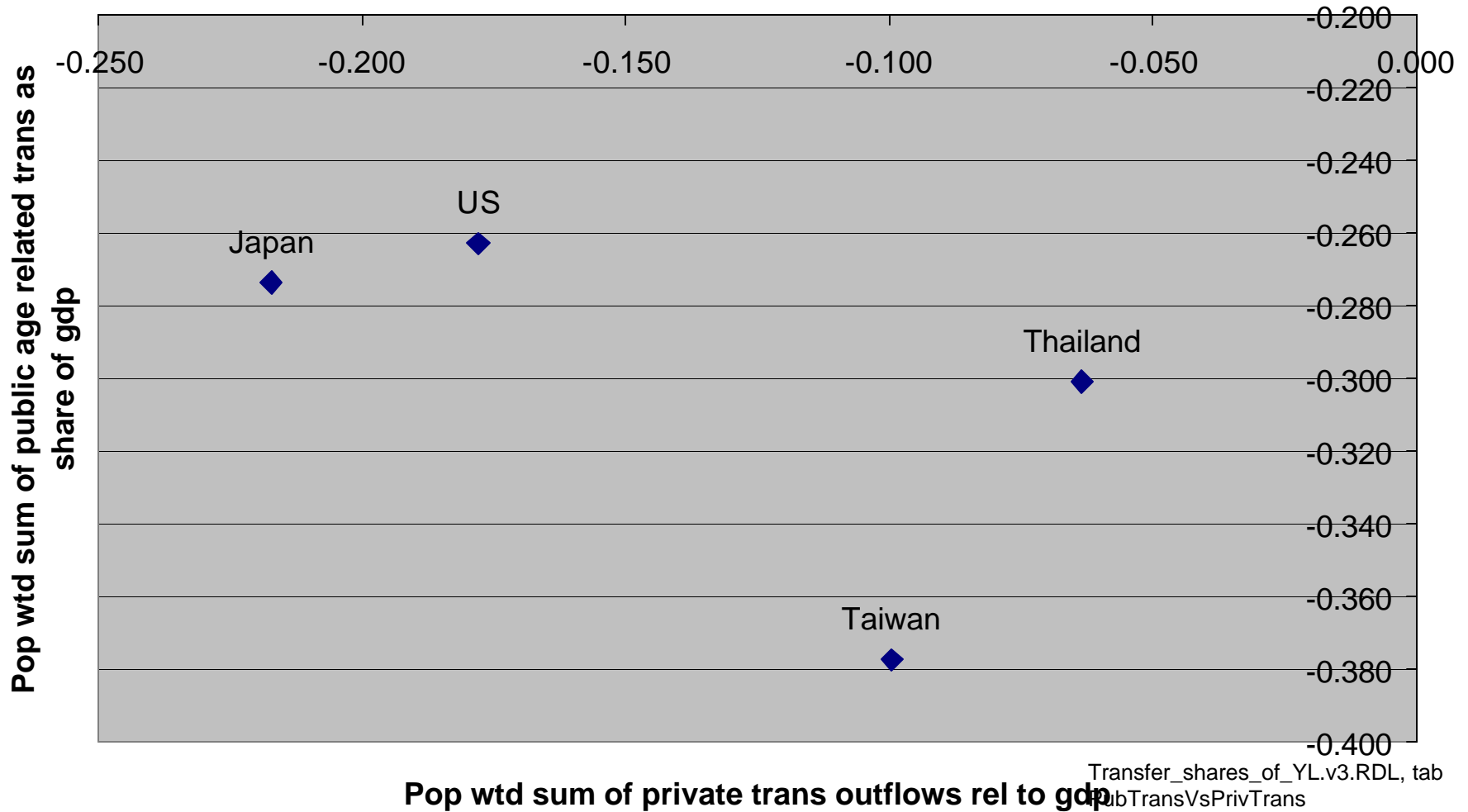
Aggregate transfers relative to GDP for four NTA countries

Country	Public Age-Related Trans	Private Transfers	Total Transfers
Japan	0.22	0.27	0.49
Taiwan	0.10	0.37	0.47
Thailand	0.06	0.31	0.38
US	0.18	0.26	0.43

In these countries, private exceed public, and total share is very substantial.

Do public and private transfers substitute for one another? Early hints.

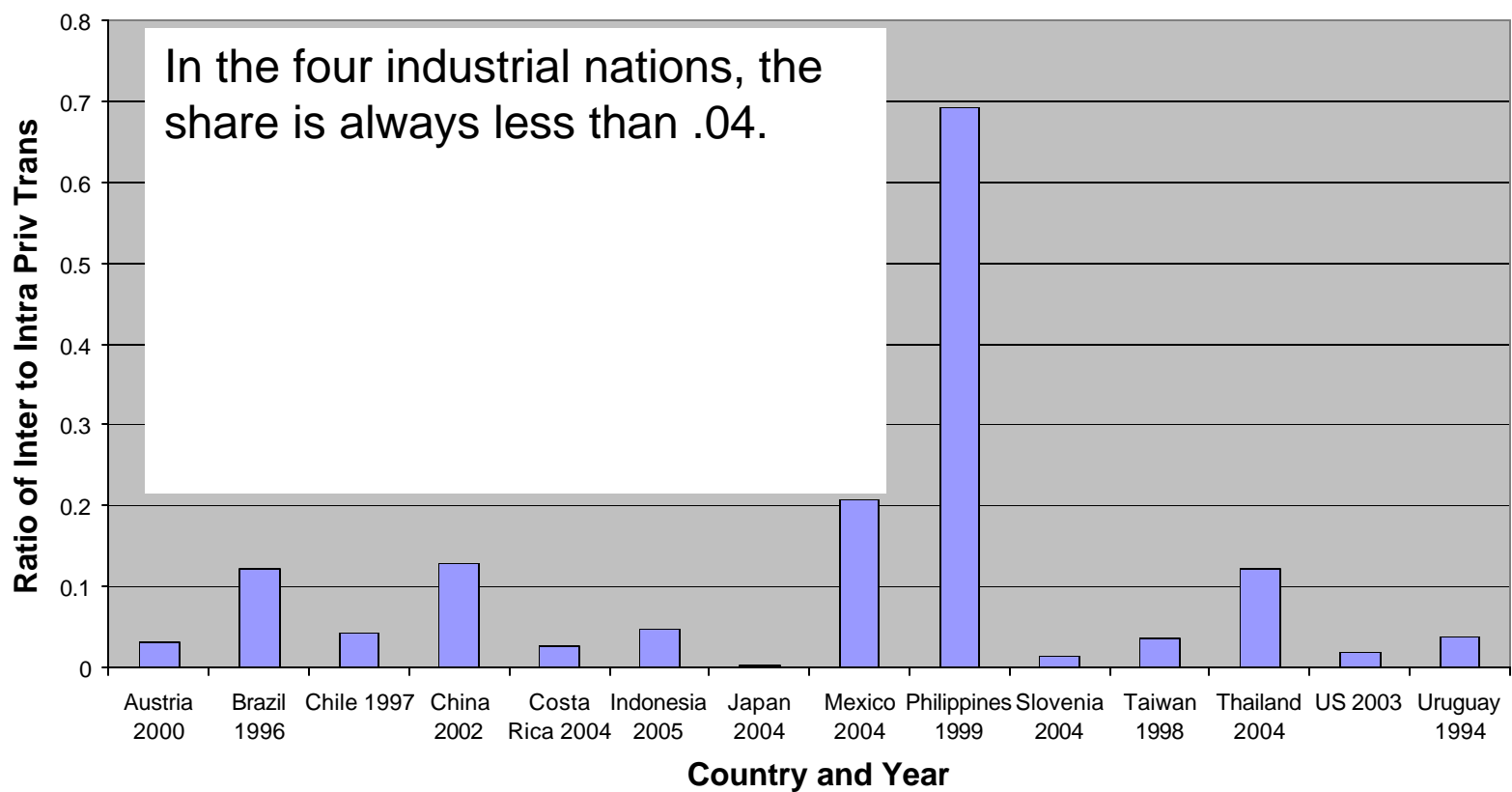
Public age related transfers vs Private transfers (outflows): population weighted sums as shares of GDP



Which are bigger, transfers within households or between households?

- Calculate aggregate transfers **received** within households and between households.
- Use same population age distribution to isolate non-demographic differences among countries.
 - Average population age distribution for 23 NTA countries is standard; used later, too.

Ratio of Aggregated Private Interhousehold Transfers Received to Intrahousehold transfers received, weighted by standard population age distribution

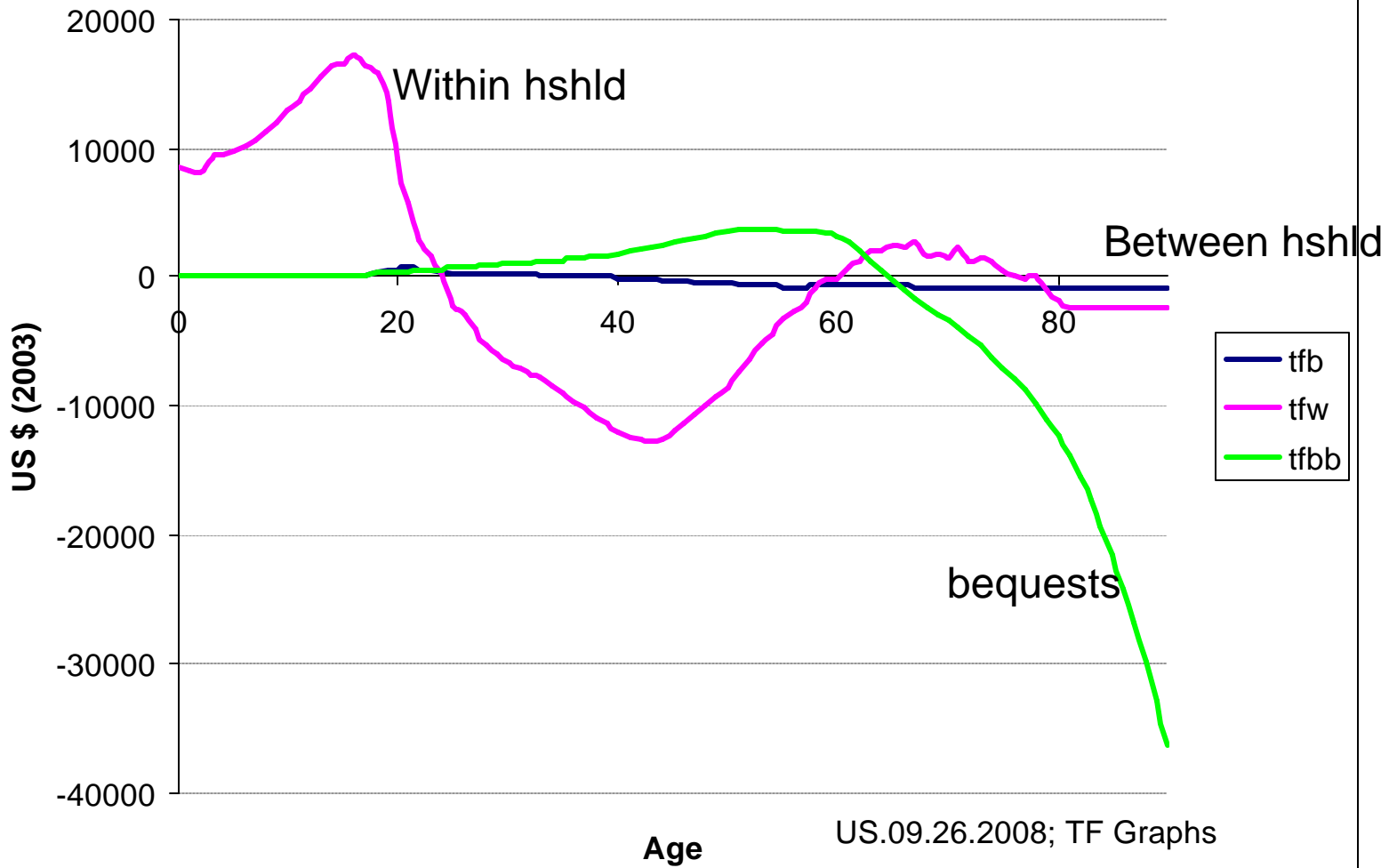


- The empirical literature on private transfers focuses exclusively on interhousehold transfers or on bequests.
- The main research question has been whether these transfers reflect altruism or an exchange motive (Cox).
- We see that this interhousehold transfers are typically only a small fraction of intrahousehold transfers.

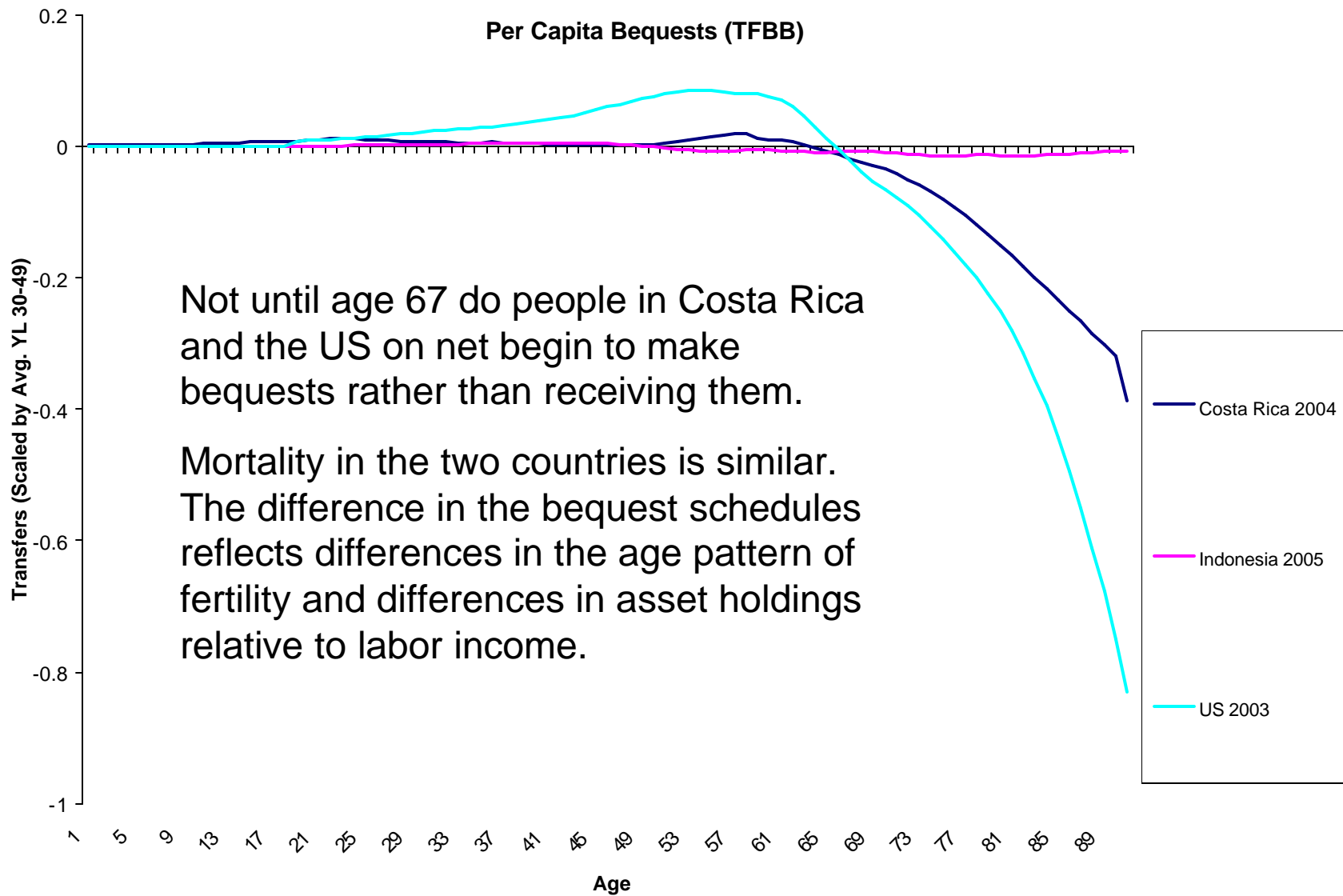
Now look at the age distribution of the three kinds of private transfer.

- First, all three at once, for the US, to give a sense of proportion.

Inter and Intra Household Private Per Capita Net Transfers and Bequests, US, 2003



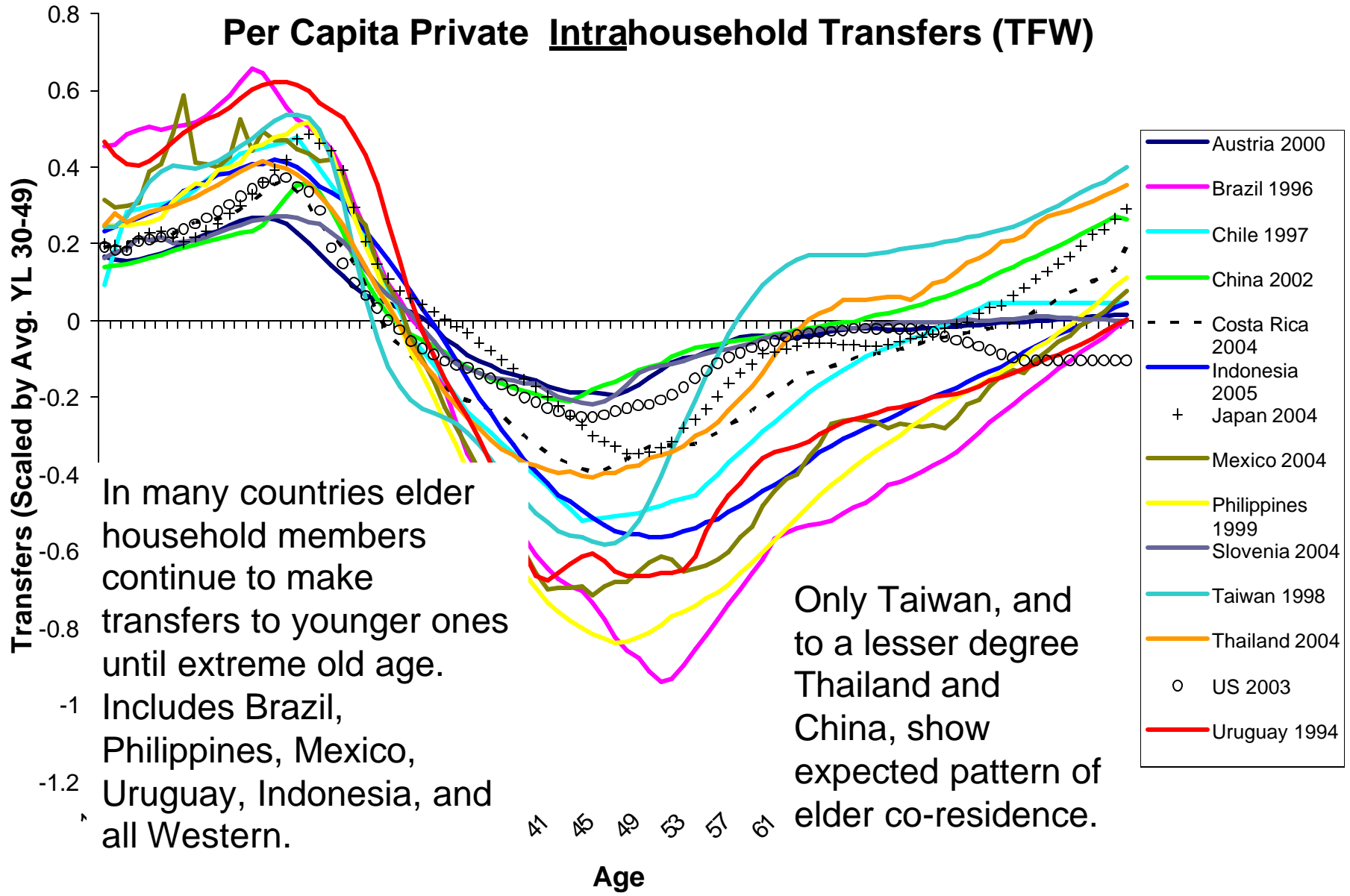
Bequests – for three countries



Private net intrahousehold transfers, for 14 countries.

- Standardized by dividing through by labor income in each country, averaged over ages 30-49.
- Units for transfers are years of labor income.
- Average labor income is very highly correlated with per capita GDP.

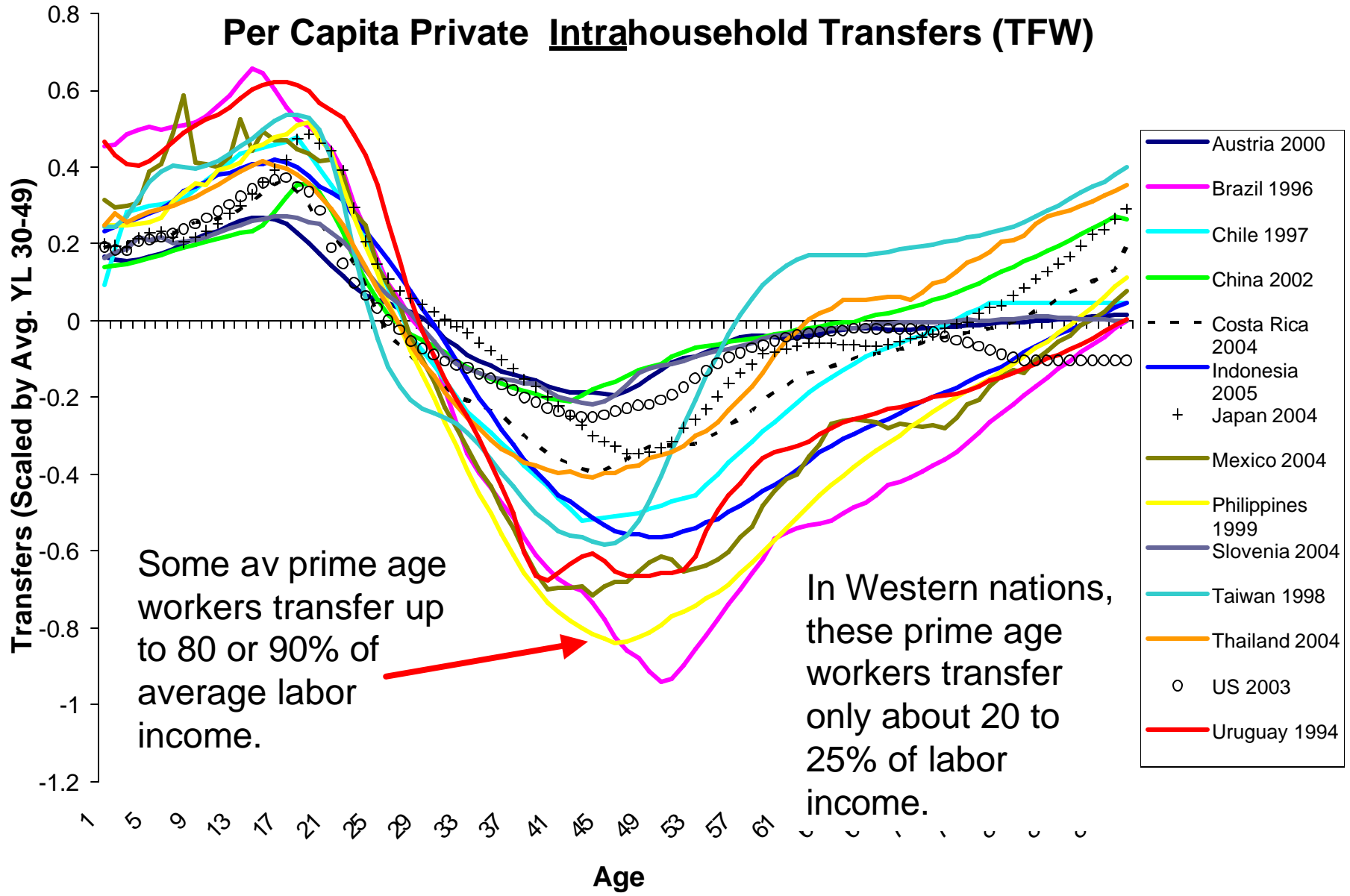
Per Capita Private Intrahousehold Transfers (TFW)



Why do co-resident elders continue to net transfer to others in household?

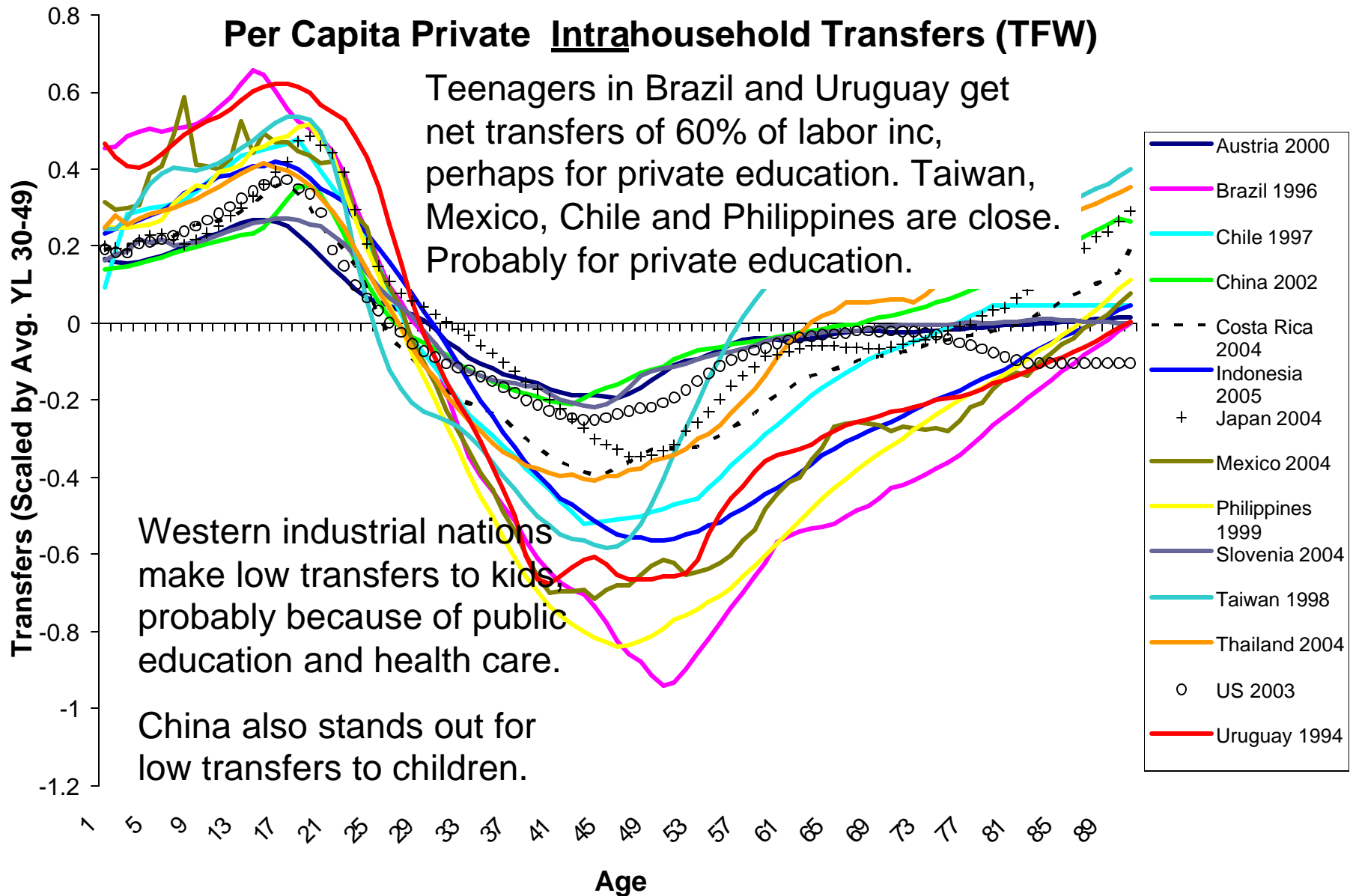
- Remittance income will be attributed to them if they are household head, and then transferred by them to others. (Phil., Mex)
- Some continue to have quite high labor income. (Indonesia, Philippines)
- Some may receive generous pension benefits (Brazil).
- Some may have accumulated assets, e.g. own the farm, so property income comes to them if they are heads.

Per Capita Private Intrahousehold Transfers (TFW)

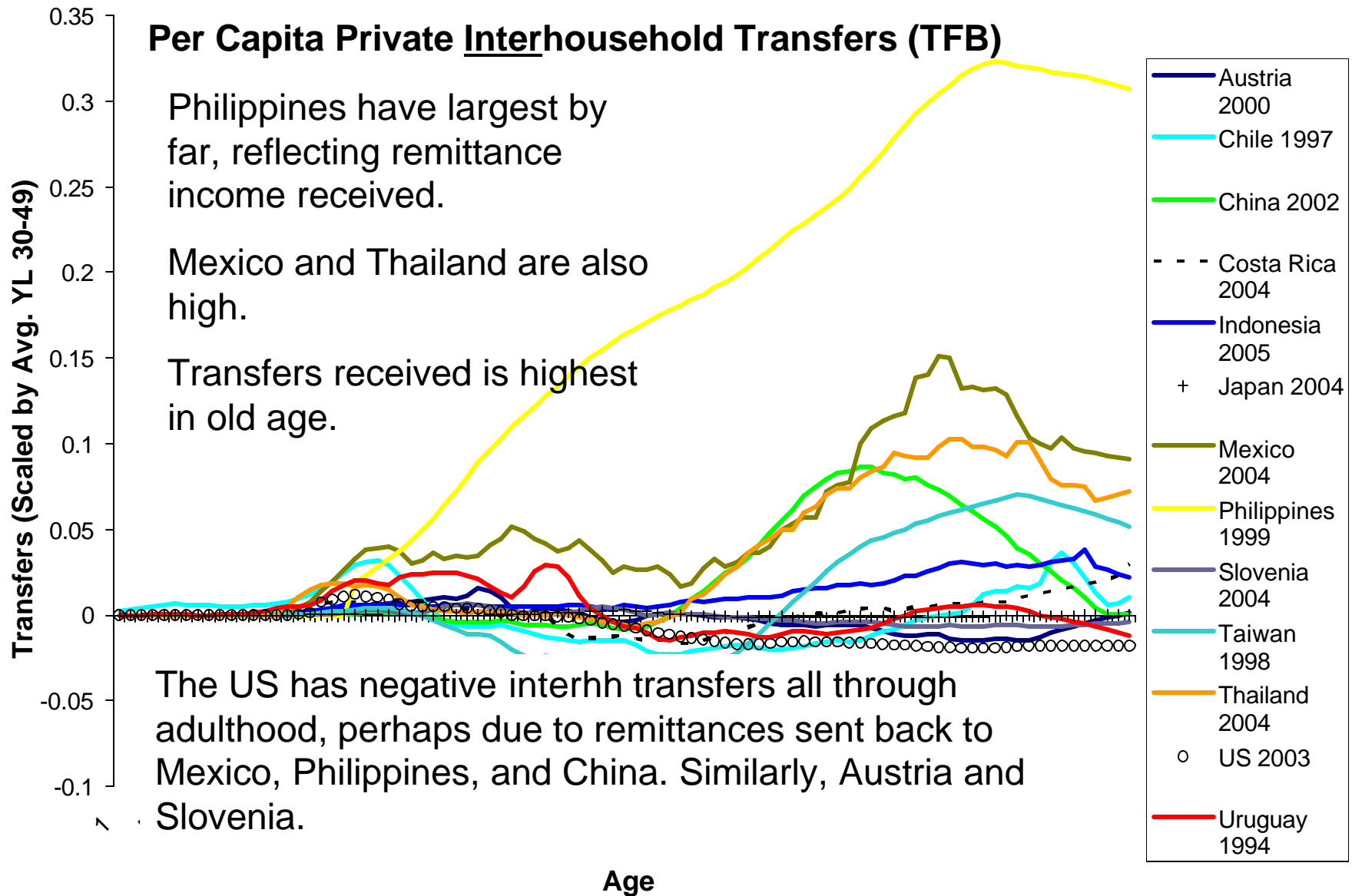


Per Capita Private Intrahousehold Transfers (TFW)

Teenagers in Brazil and Uruguay get net transfers of 60% of labor inc, perhaps for private education. Taiwan, Mexico, Chile and Philippines are close. Probably for private education.

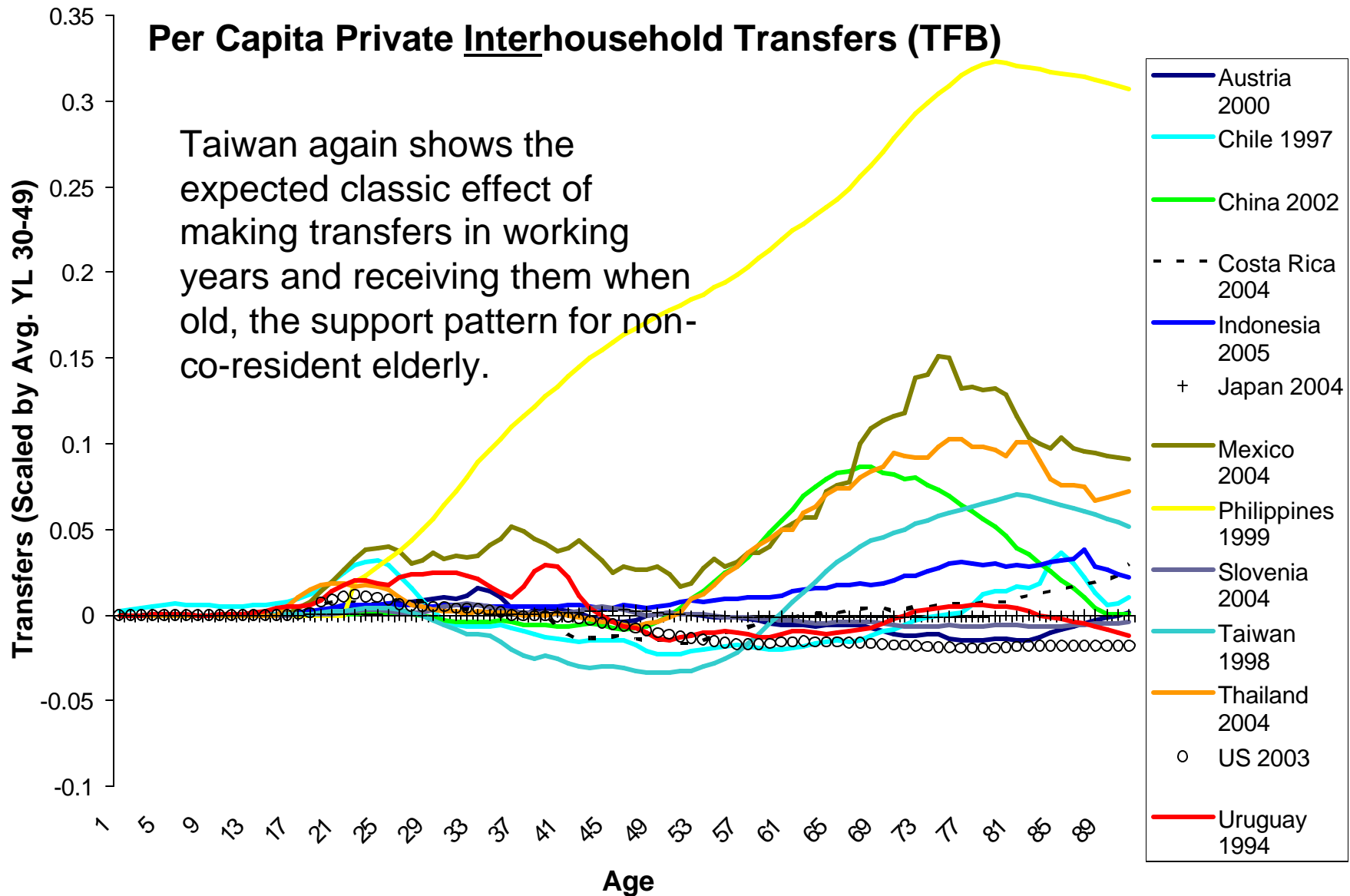


Per Capita Private Interhousehold Transfers (TFB)



Per Capita Private Interhousehold Transfers (TFB)

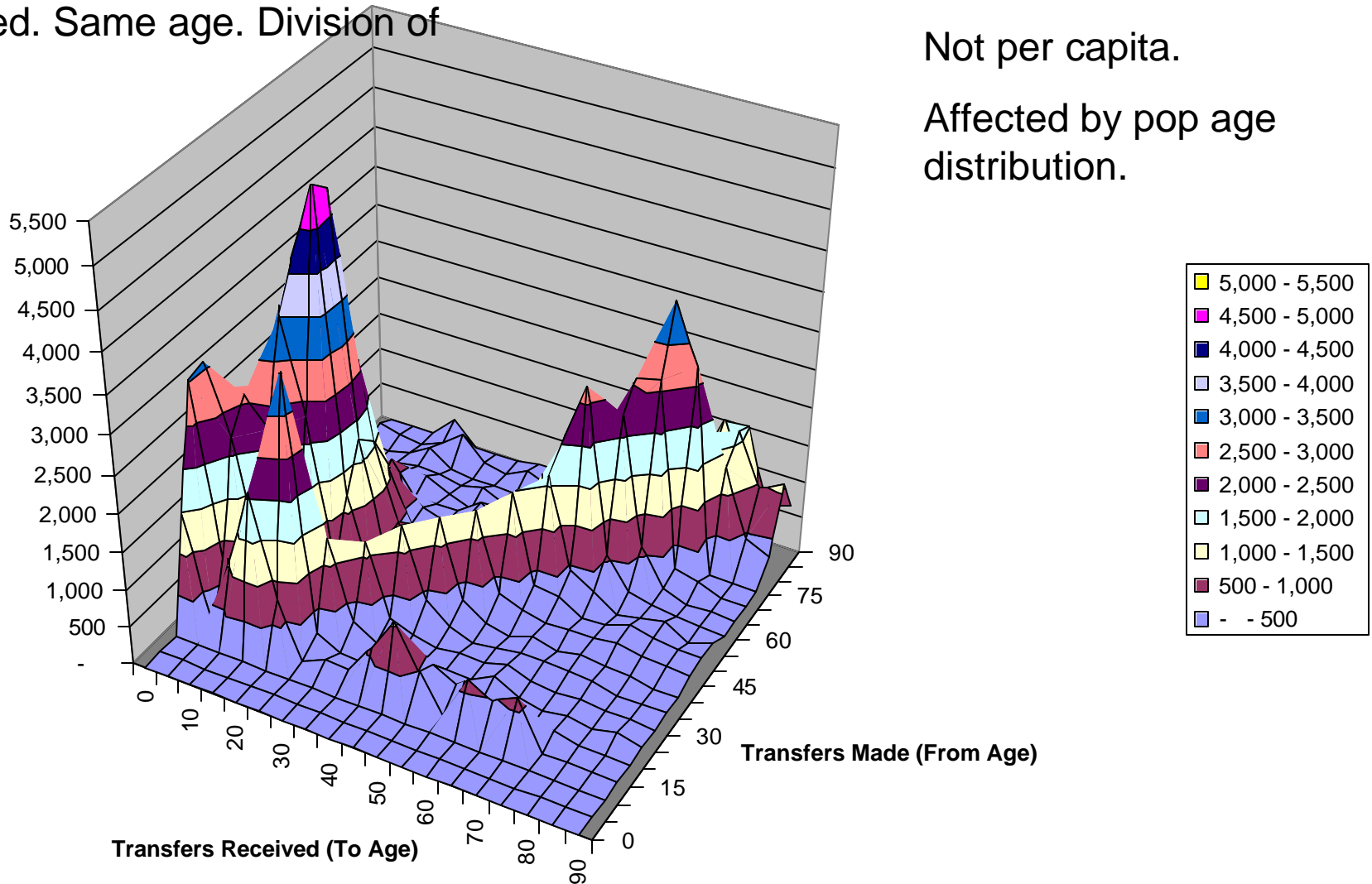
Taiwan again shows the expected classic effect of making transfers in working years and receiving them when old, the support pattern for non-co-resident elderly.



Now look at age pattern of gross transfers within the household for US and Japan.

The strong diagonal reflects transfers between spouses. Perhaps these should not be counted. Same age. Division of labor.

Intrahousehold Transfers in the US
(Aggregate in Millions)



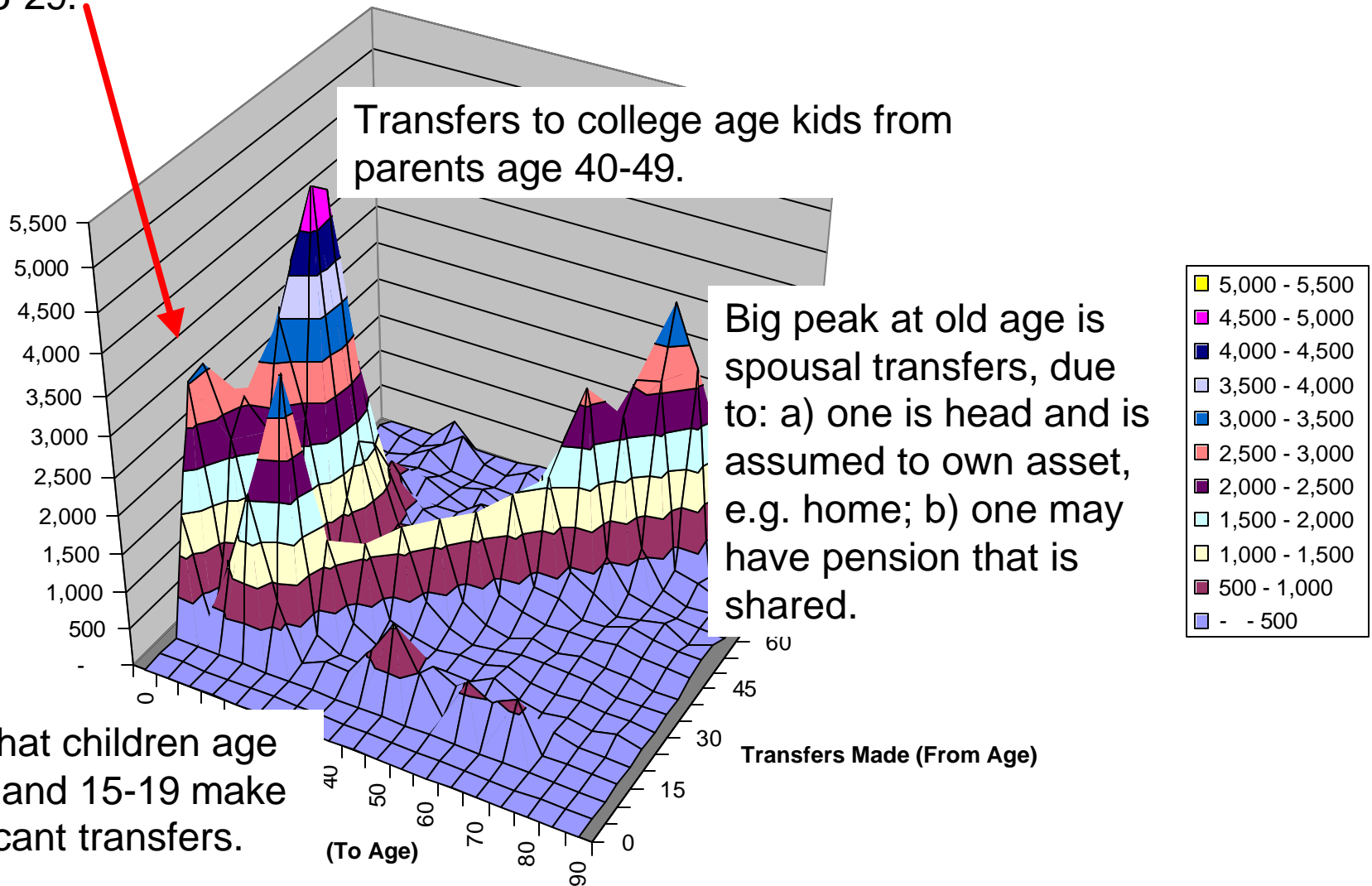
Shows aggregate amount of transfers between two ages.

Not per capita.

Affected by pop age distribution.

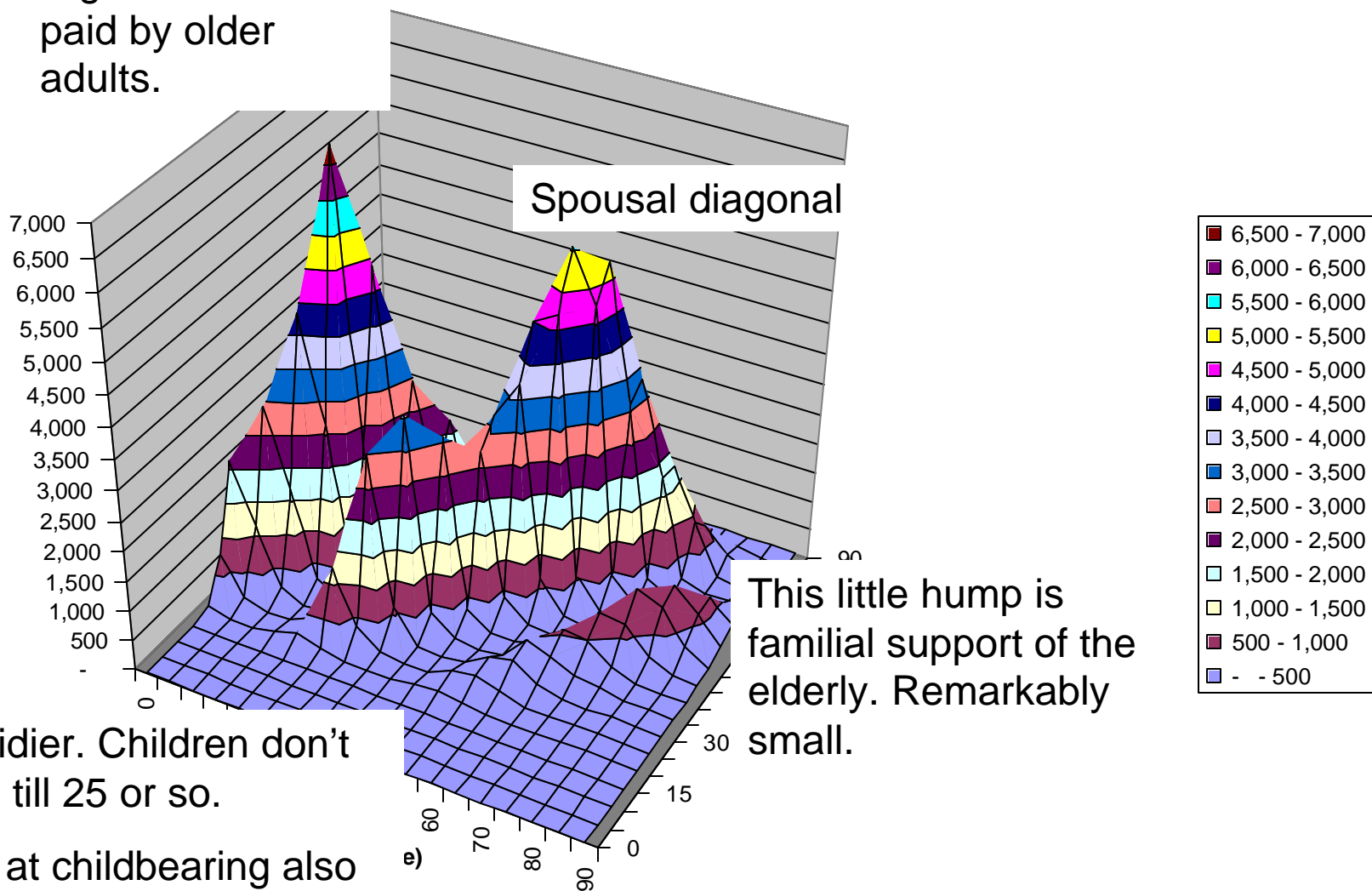
Intrahousehold Transfers in the US

Transfers to 0-4 from parents (Aggregate in Millions) Transfers age 25-29.



**Intrahousehold Transfers in Japan
(Aggregate in Millions of Yen)**

Higher education
paid by older
adults.



This little hump is
familial support of the
elderly. Remarkably
small.

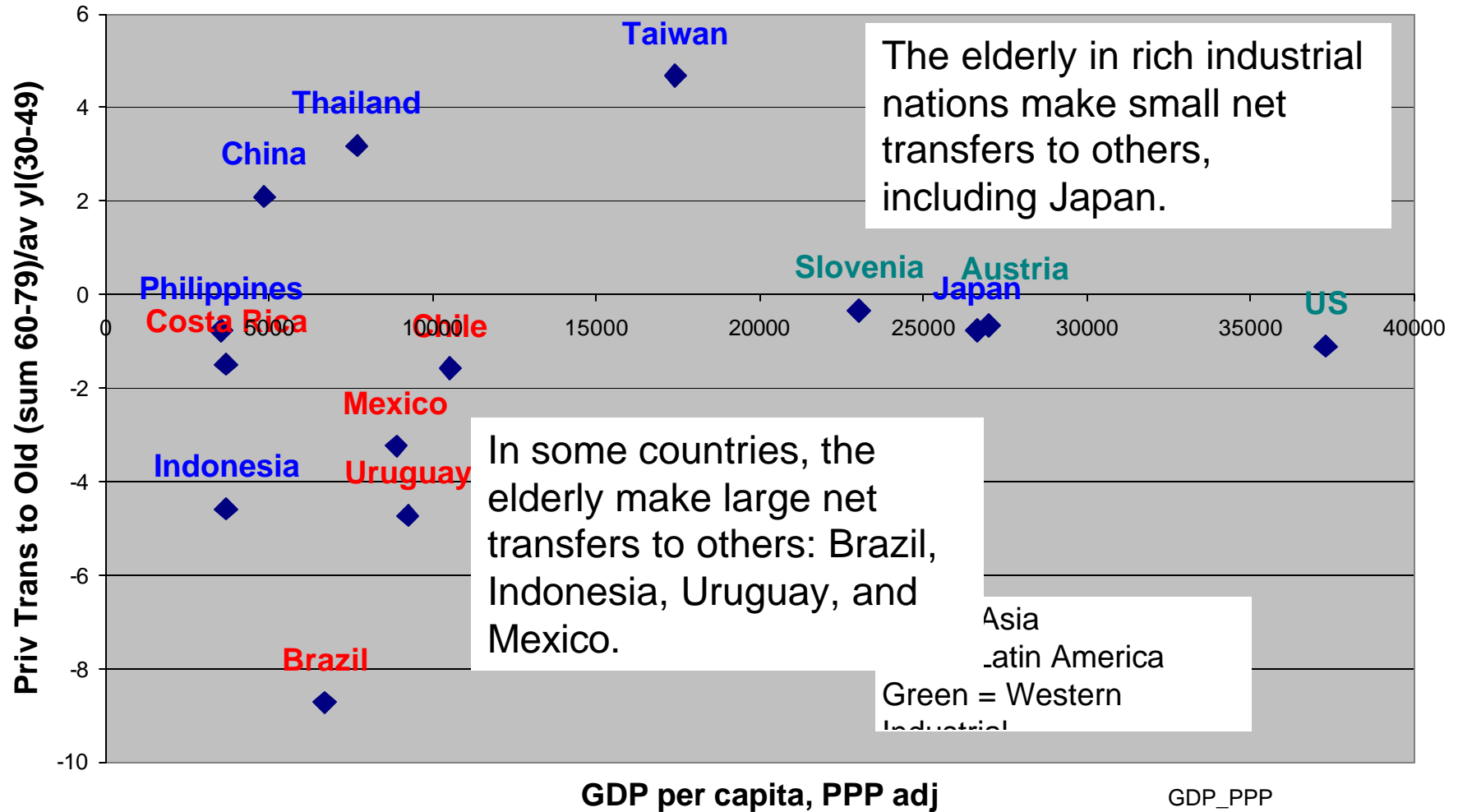
Japan is tidier. Children don't
contribute till 25 or so.

Later age at childbearing also
changes appearance.

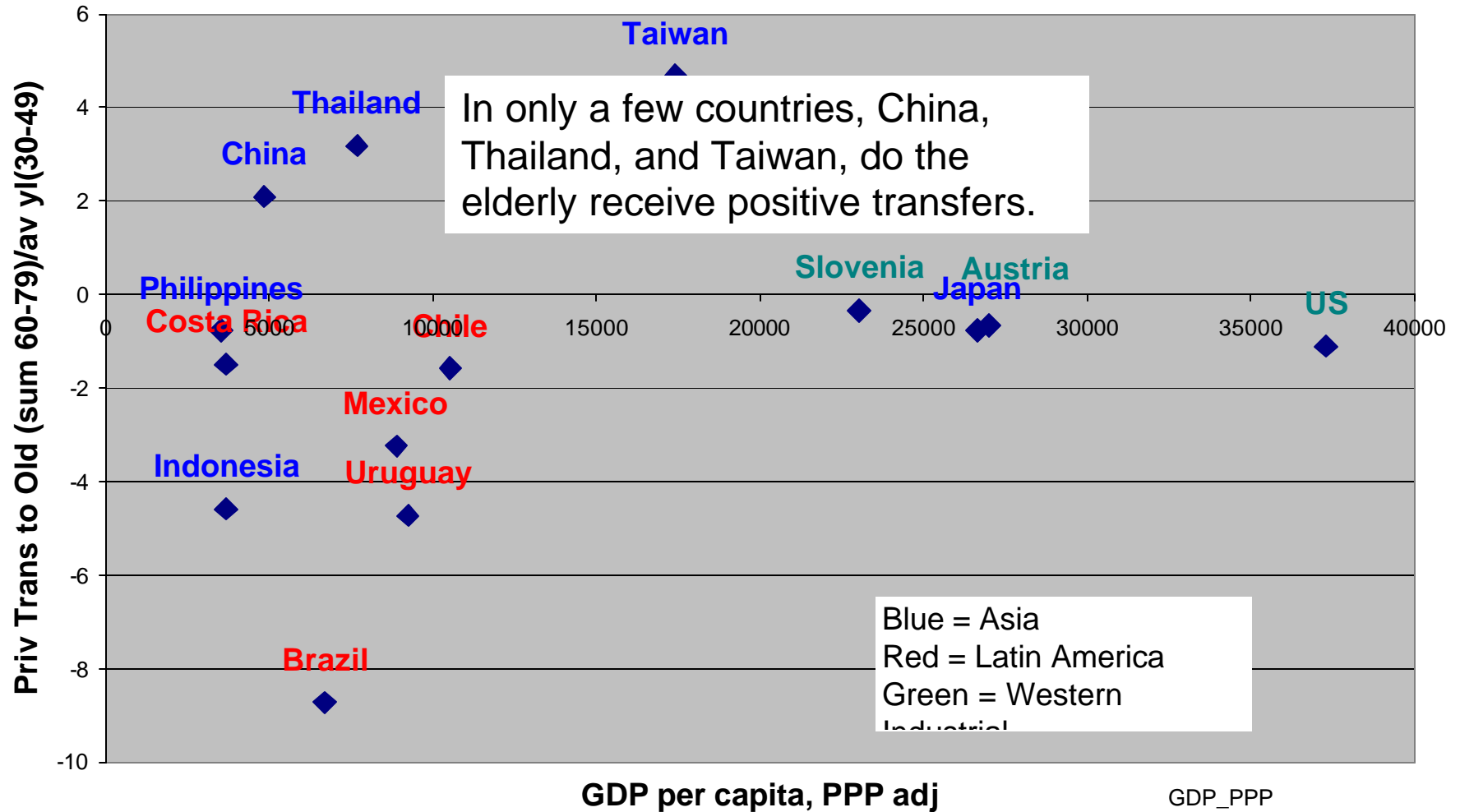
Now look more closely at private transfers to the elderly.

- Summarize by summing the net transfers over ages 60-79, divided by av labor inc.
- Plot against per capita GDP, PPP adjusted.

Private Transfers per Elder (Sum 60-79/yl(30-49) Vs Per capita GDP, by Region

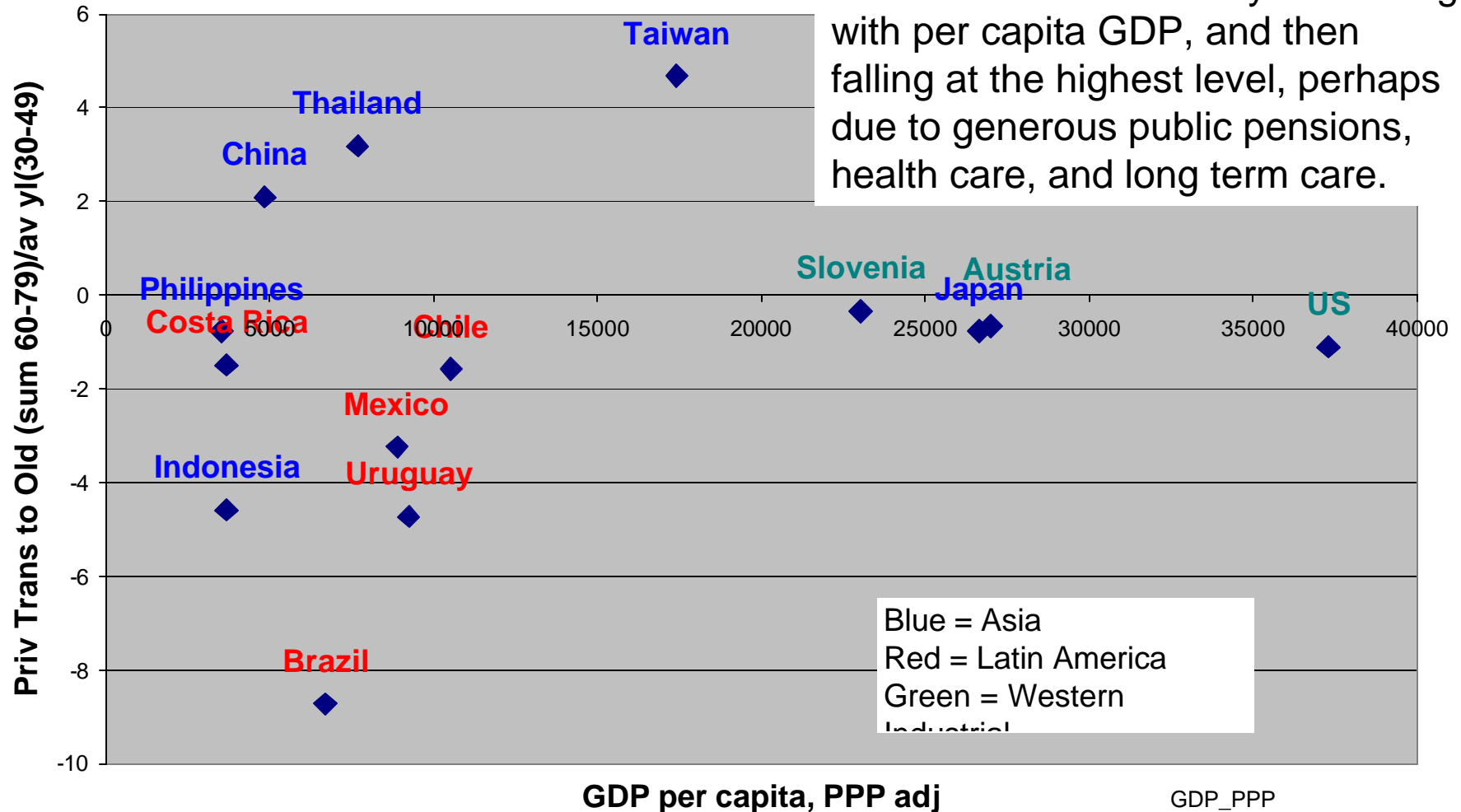


Private Transfers per Elder (Sum 60-79/yl(30-49) Vs Per capita GDP, by Region



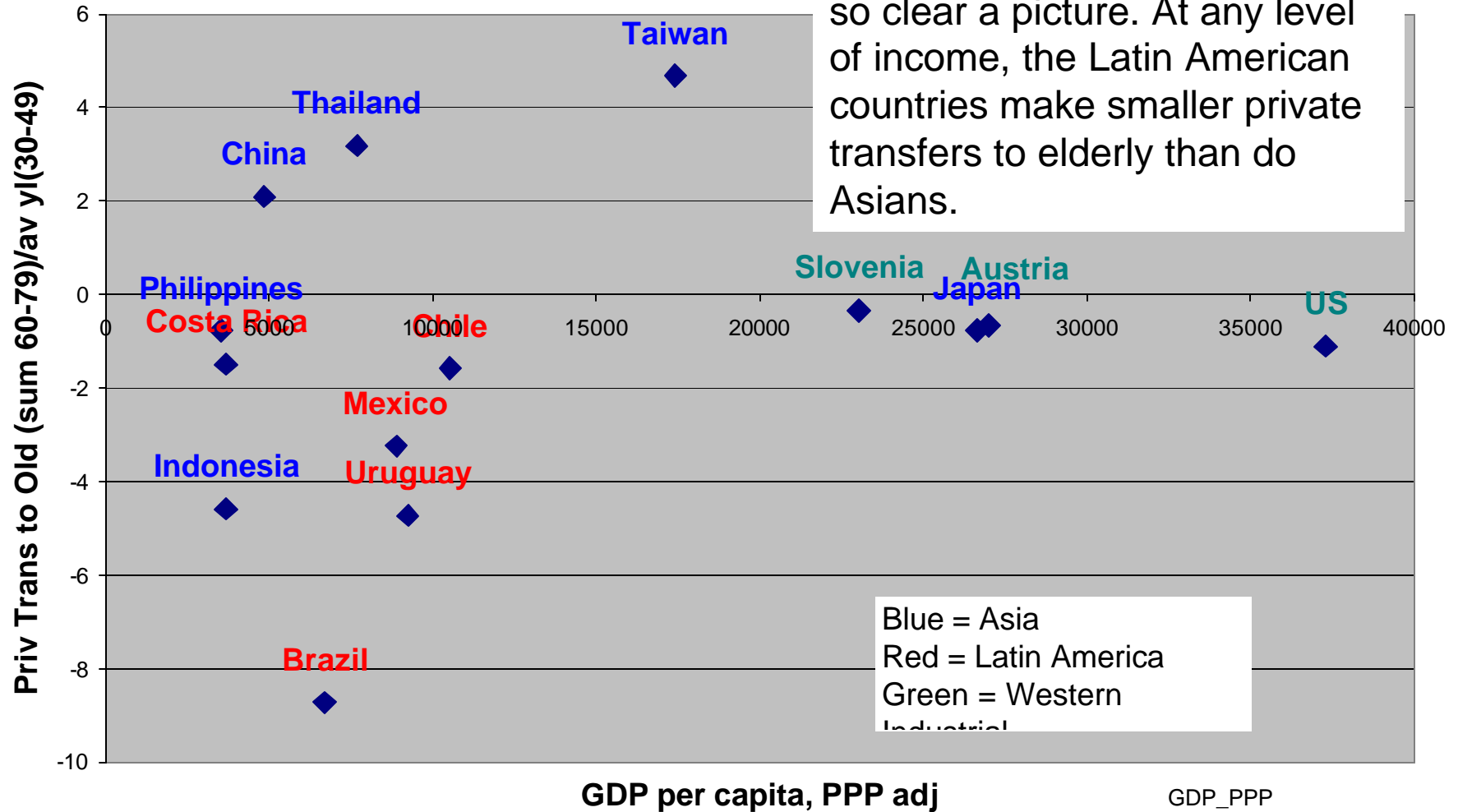
Private Transfers per Elder (Sum 60-79/yl(30-49) Vs Per capita GDP, by Region

The Asian countries show a pattern of transfers to the elderly increasing with per capita GDP, and then falling at the highest level, perhaps due to generous public pensions, health care, and long term care.

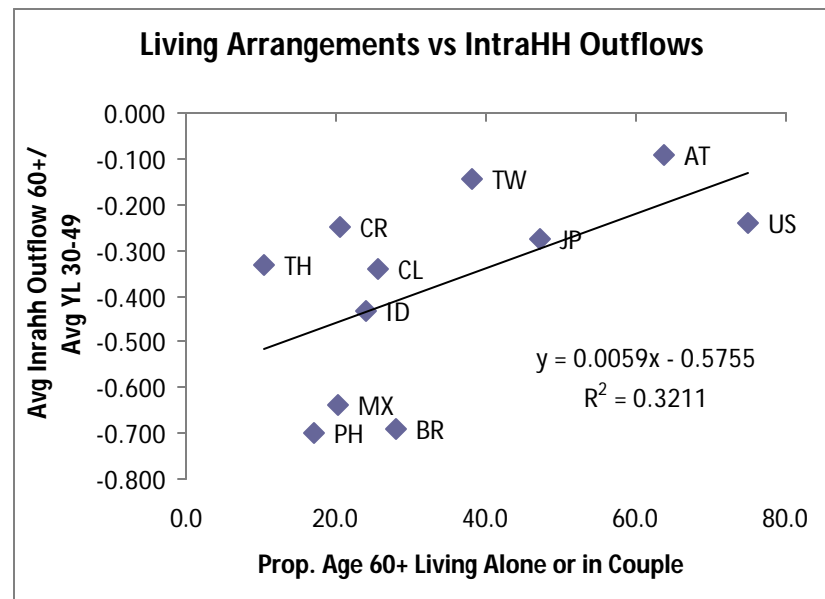
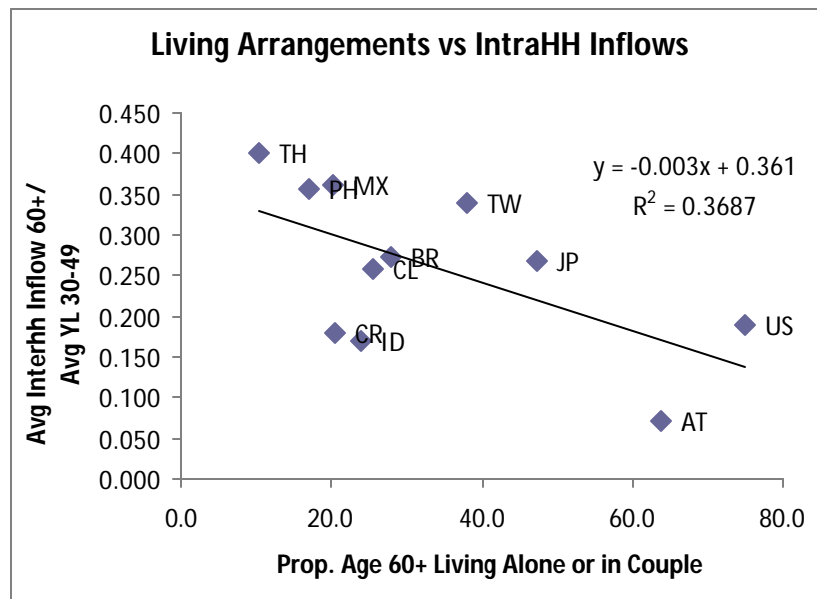


Private Transfers per Elder (Sum 60-79/yl(30-49) Vs Per capita GDP, by Region

The LA countries do not show so clear a picture. At any level of income, the Latin American countries make smaller private transfers to elderly than do Asians.



Living Arrangements and Intrahousehold Inflows to, and Outflows from, the Elderly

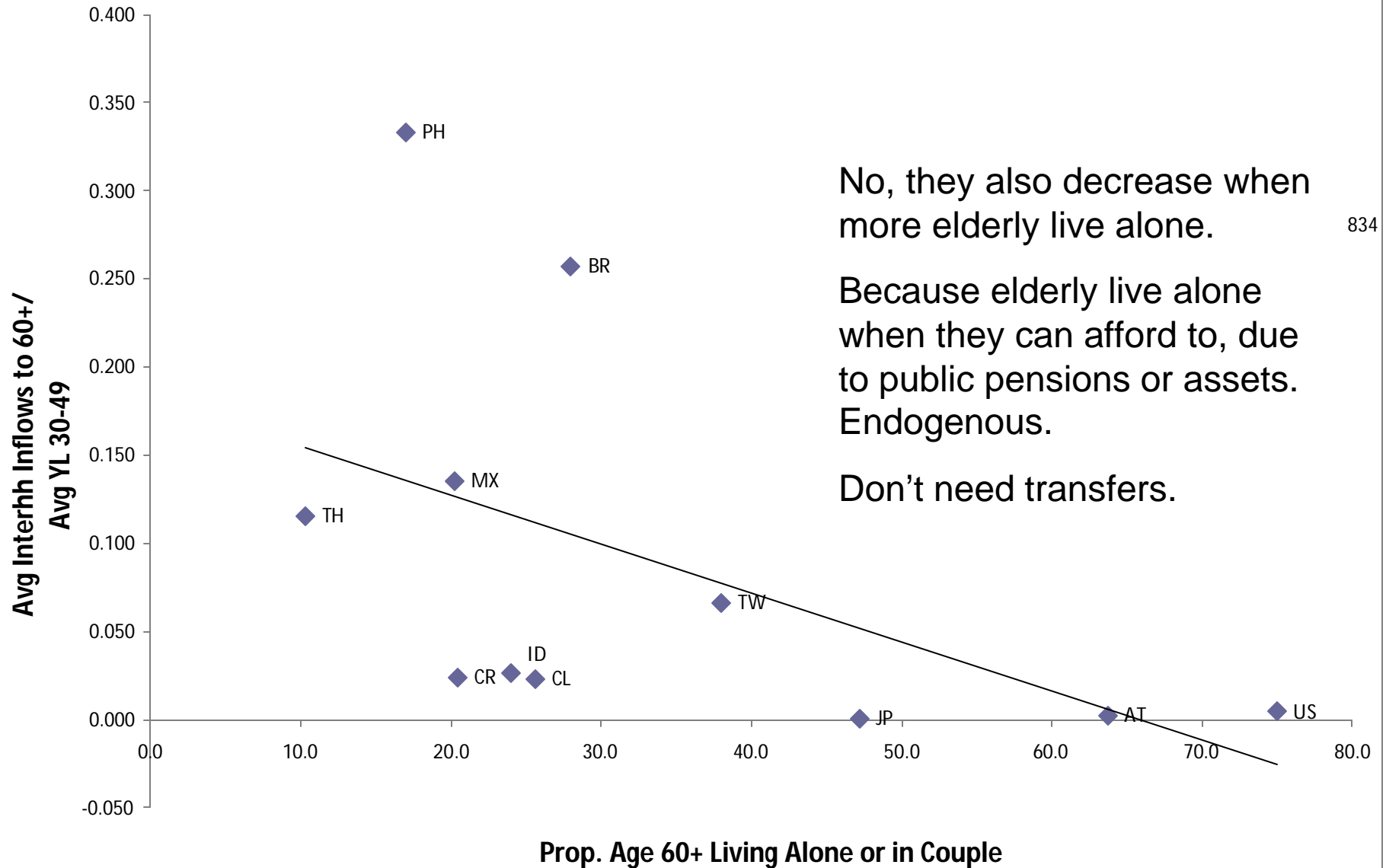


When more elderly live alone or only with spouse, the average elder receives smaller within household transfers, and makes smaller within household transfers.

Completely obvious result

- And similarly, interhousehold flows must *increase* when more elderly live alone.
- Do they?

Living Arrangements vs InterHH Inflows



No, they also decrease when more elderly live alone.

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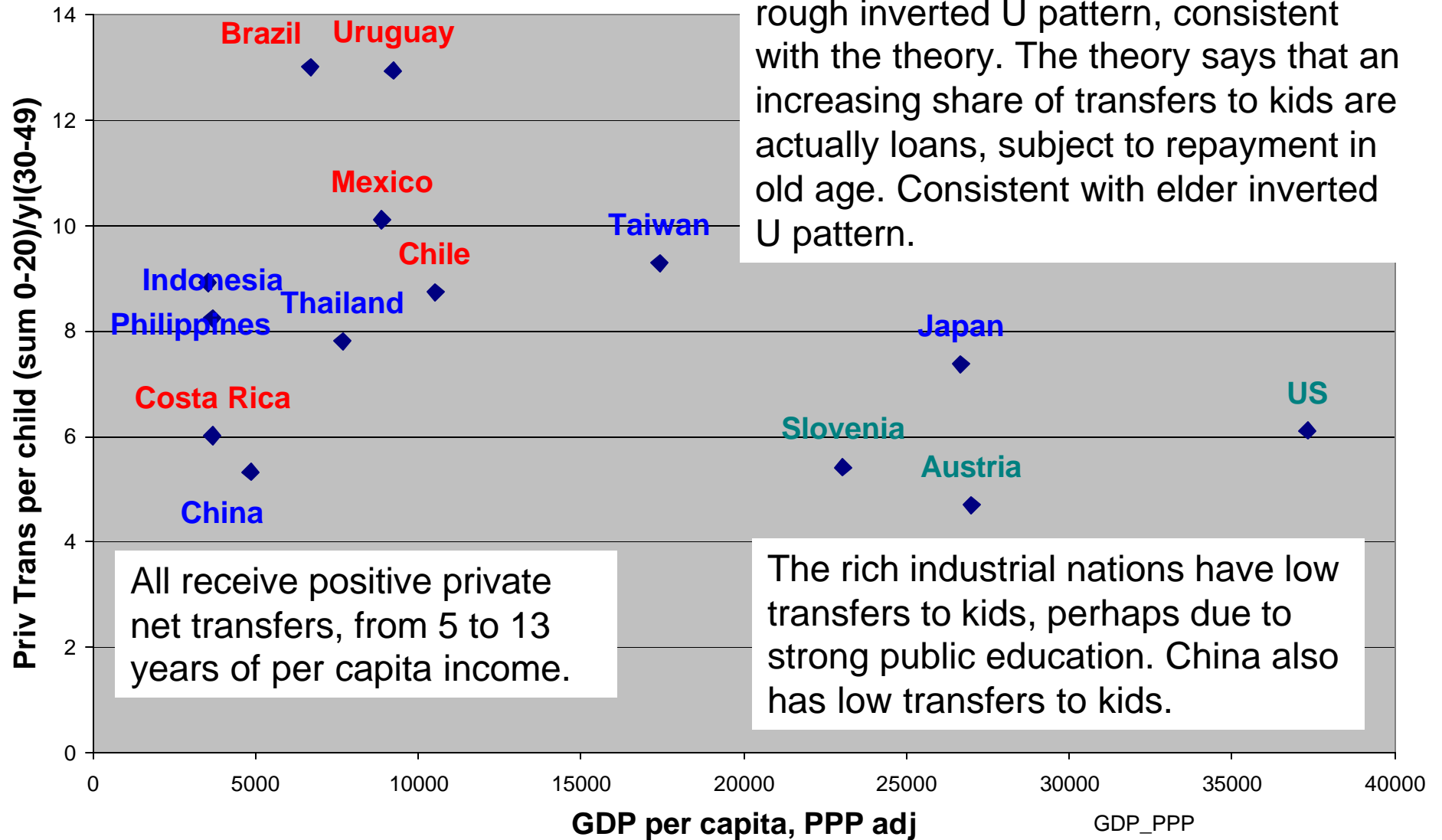
Because elderly live alone when they can afford to, due to public pensions or assets. Endogenous.

Don't need transfers.

Now look more closely at private transfers to children.

- Summarize by summing the net transfers over ages 0 to 19, divided by av labor inc.

Private Transfers per Child vs GDP per capita

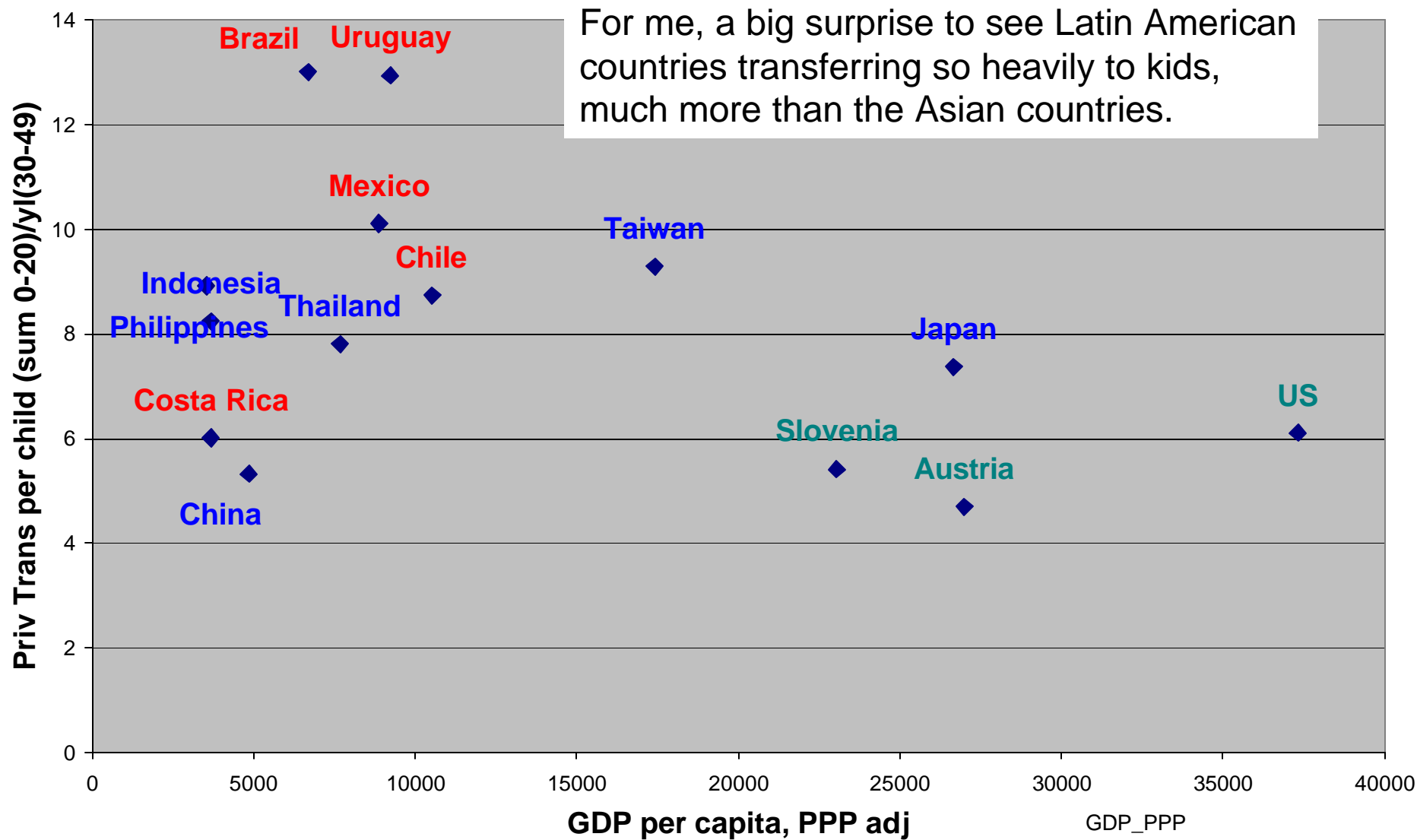


The Asian countries again show a rough inverted U pattern, consistent with the theory. The theory says that an increasing share of transfers to kids are actually loans, subject to repayment in old age. Consistent with elder inverted U pattern.

All receive positive private net transfers, from 5 to 13 years of per capita income.

The rich industrial nations have low transfers to kids, perhaps due to strong public education. China also has low transfers to kids.

Private Transfers per Child vs GDP per capita



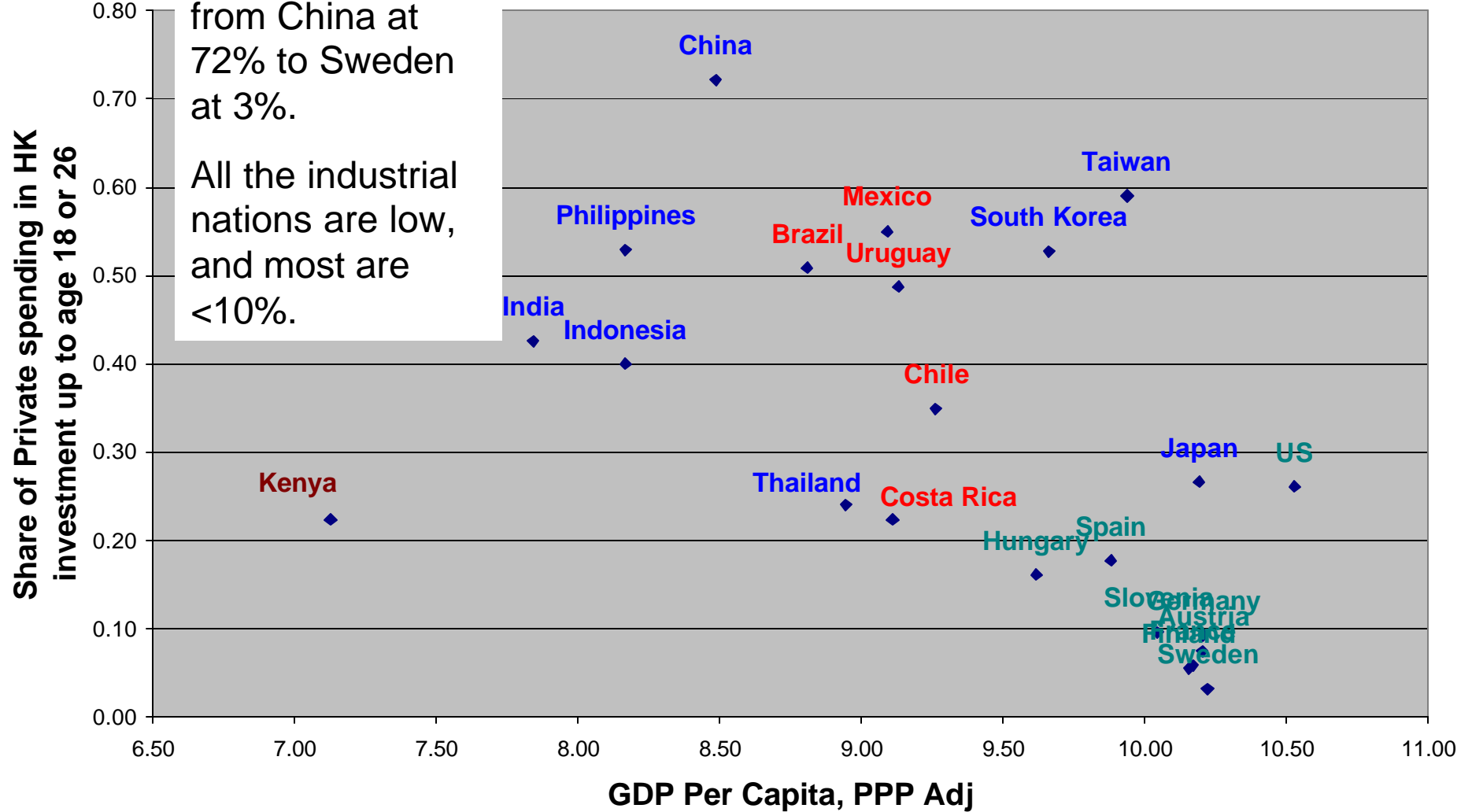
What share of HK investment in kids is privately financed?

- Construct a measure of HK investment per child by summing all public and private spending on health care and on education from age 0 to 18 for health, to 26 for educ.
- Divide by av labor income, as usual.
- Calculate the share of the total that is private spending.

Private share of Human Capital investment per child, by Per Capita GDP, 23 NTA countries

Great variation, from China at 72% to Sweden at 3%.

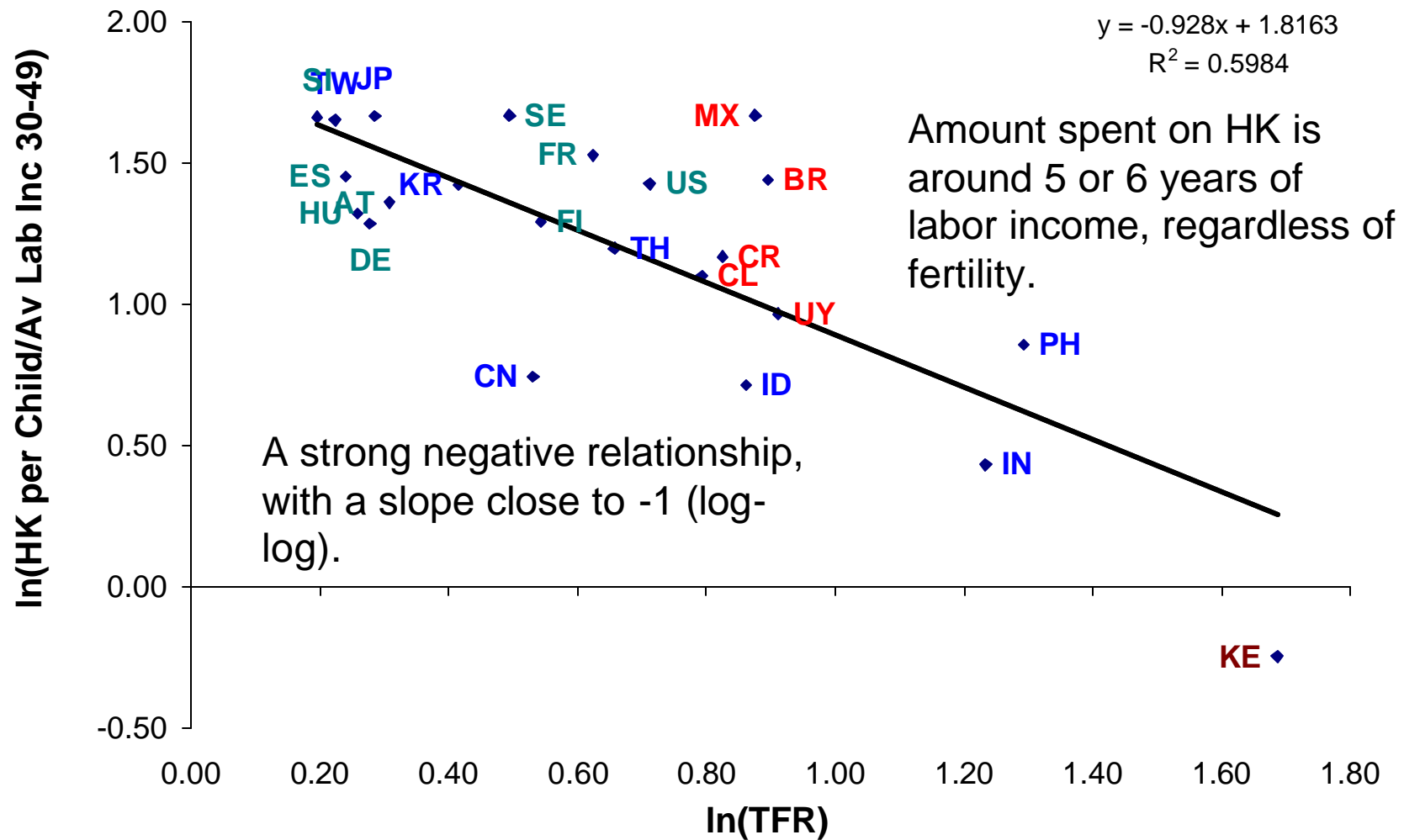
All the industrial nations are low, and most are <10%.



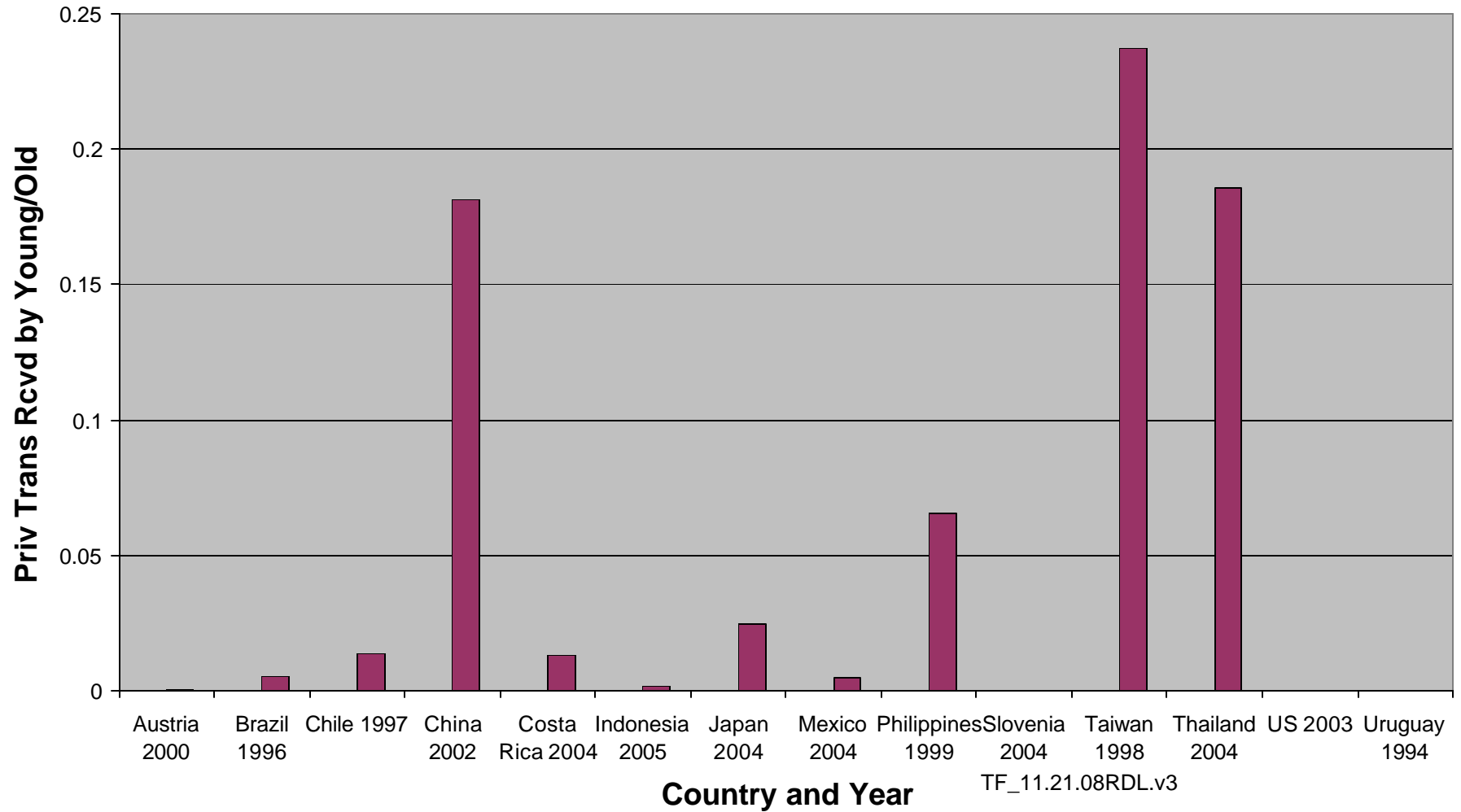
The Quantity-Quality Tradeoff

- Economic theories emphasize the tradeoff between numbers of children, and investment per child.
- Here look at HK spending (as defined above) and the current Total Fertility Rate.

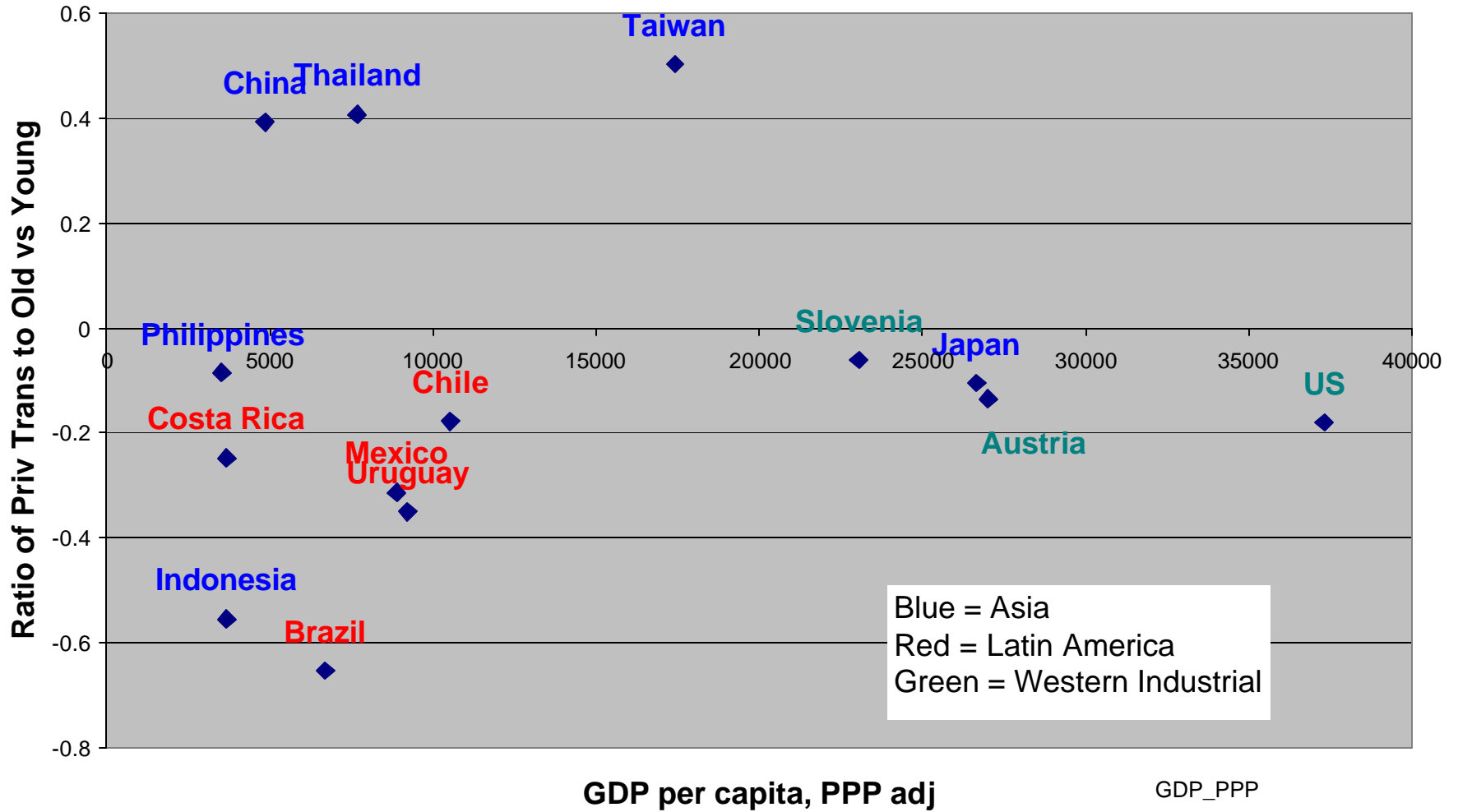
Figure 13. Per Child HK Spending (Public and Private) vs. Fertility



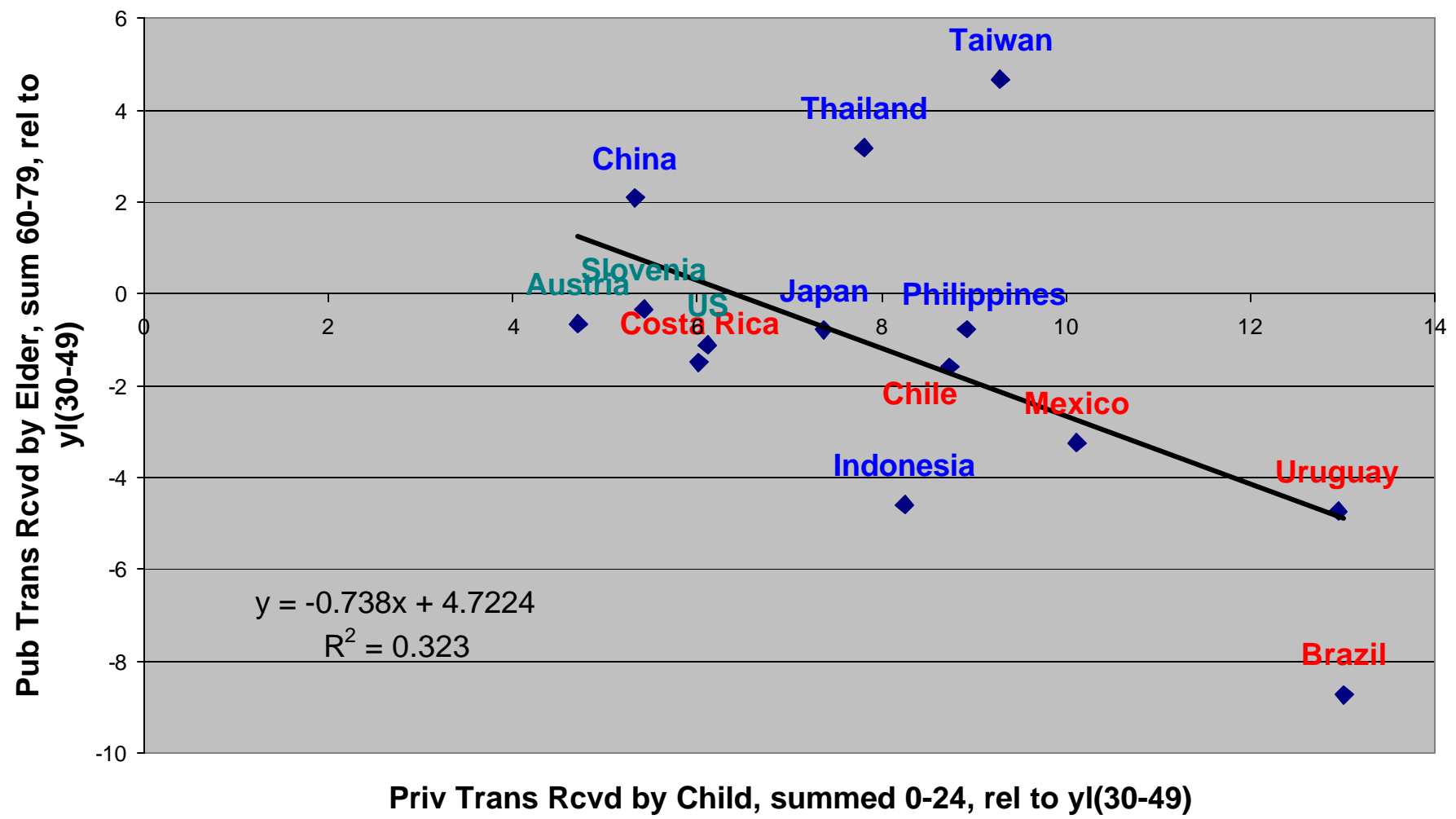
Ratio of private transfers received by old to young, using standard population weights



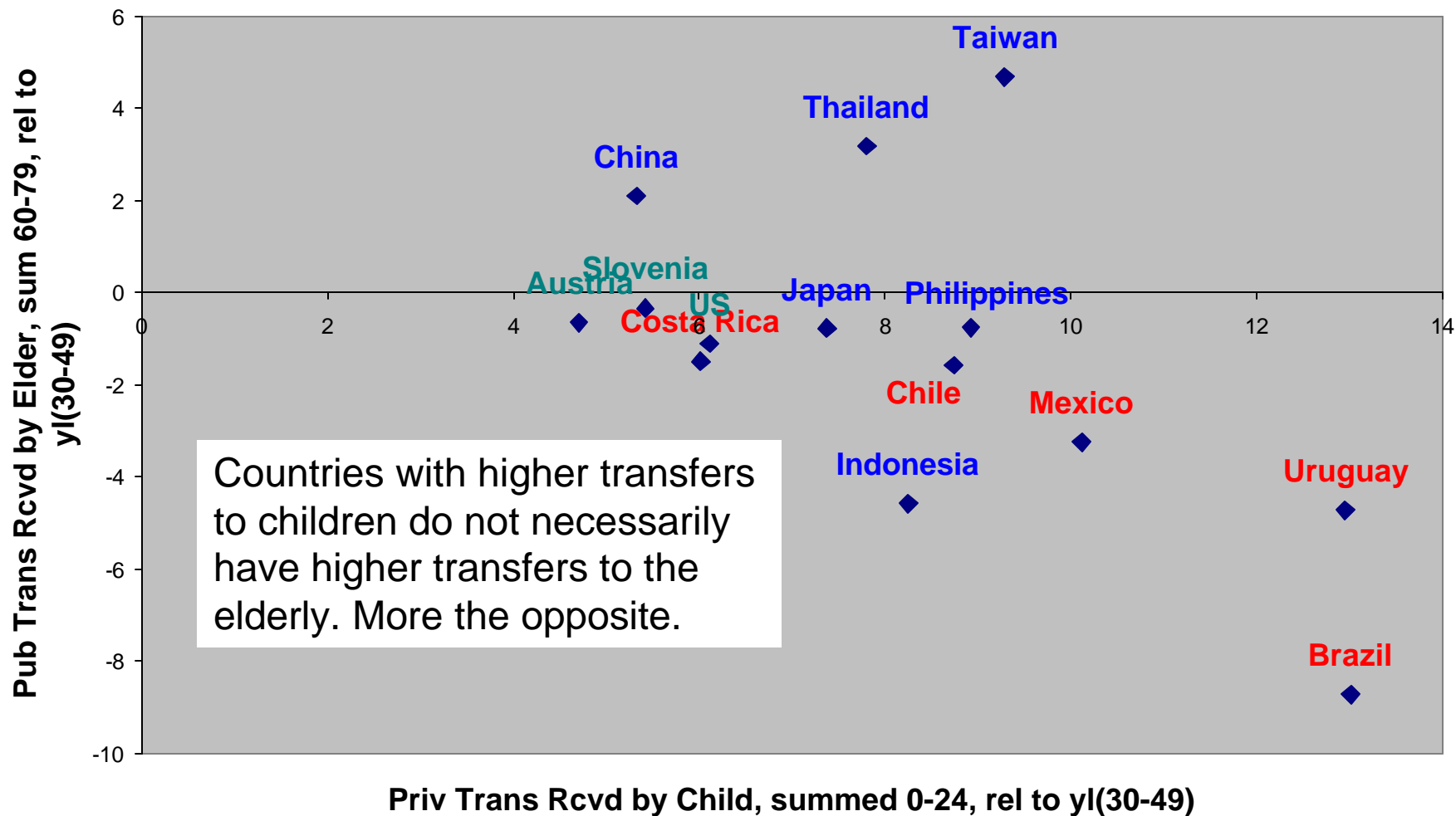
Ratio of Private Transfers per Elder to Youth Vs Per capita GDP, by Region



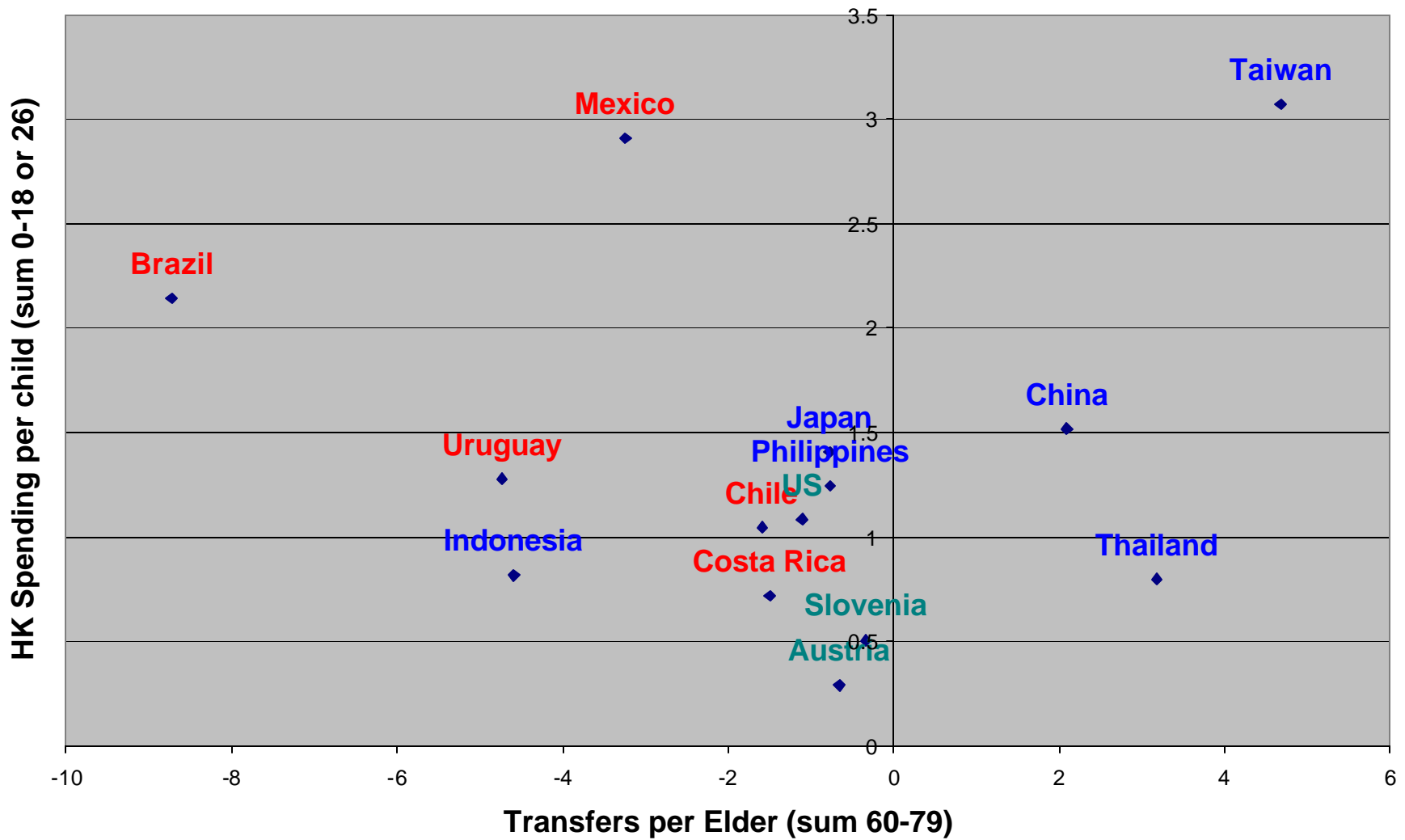
Private transfers received per elder vs private transfers received per child



Private transfers received per elder vs private transfers received per child



Transfers to Elder vs HK Spending per child



END