



# Fiscal Policy, Equity and Long-Term Growth in Developing Countries

**Comments to Keen  
and Acosta-Ormaechea/Morozumi**

**Jorge Martinez-Vazquez**

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# Important topic

- We have been observing significant changes in income inequality and volatile rates of economic growth
- So what can be done about it? What is the impact of taxation and public expenditure policies on income distribution and economic growth?
- What are the better and worse ways to formulate fiscal policies with those objectives in mind?

## Keen: Overcoming the constraints to growth-- the role of tax and spending reforms

- Presentation focused on:
  - The importance of details to get things right: *The problem often lies with the limited data available to understand what matters in tax and expenditure policies across countries-- and knowledge (CIT tax incidence? The benefit incidence of many expenditures?*
  - Linking taxing and spending: *Without doing that we get a distorted picture of the impact of fiscal policy; on distribution issues taxes may not be too progressive but that can be offset (or made worse) by expenditure policies; balanced view is also important for growth and other government objectives ... we all know it but most often ignore it*
  - Dealing with informality: *I agree that focus must be on tax fraud, which only partially overlaps informality; tax morale is related to quality of services –and illustrates well the link between taxing and spending--but also need to invest in tax administration and to fight corruption*

## Acosta-Ormaechea and Morozumi: Contributions

*“CAN A GOVERNMENT ENHANCE LONG-RUN GROWTH BY CHANGING THE COMPOSITION OF PUBLIC EXPENDITURE?”*

### *Contributions to the literature :*

- A new and large dataset (56 countries) during 40 years (1970-2010).
- **Specifying explicitly which is the compensating component in reallocations.**
- Addressing causal effects using dynamic panel GMM estimators.

## **Acosta-Ormaechea and Morozumi: main results**

### **RESULTS**

- **Limited associations of government spending reallocations and long-run growth.**

However, two exceptions found:

- **Education spending: robustly associated with higher growth.**
- **Capital spending: positively associated with higher growth (less robust).**

## Comments: Acosta-Ormaechea and Morozumi

**Nice paper. Main issue: the quality and disaggregation of data on expenditures**

As they acknowledge, differences in the quality of spending are not incorporated (efficiency, performance).

But there are also issues with composition (primary vs. higher education; primary vs. tertiary health, decentralized or not; etc.).

**Need to keep investing in collecting better data**

Minor issues:

- Need for country or regional dummies in System GMM (in using difference and the level equations).
- More generalized use of control variables (beyond education equation) and their discussion.



# **OTHER TAKES ON THE TOPIC**

# Direct versus Indirect Taxation ?\*

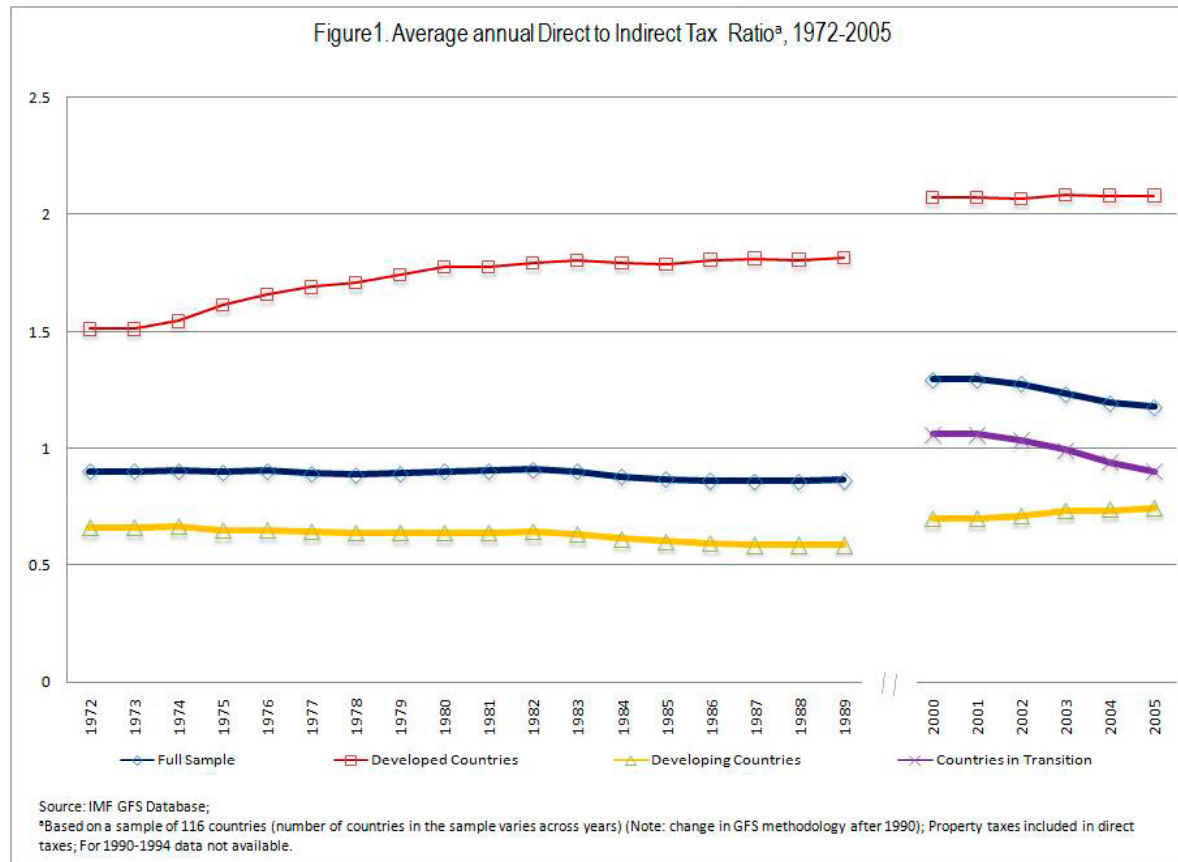
- chapter in *Tax Systems*, E. Albi and J. Martinez-Vazquez (eds.)  
*Edward Elgar 2011*



# Choices in direct vs. indirect taxes

- Over the last three decades the average ratio of direct to indirect taxes for a sample of 116 countries has been on the increase and these changes have been more pronounced for developed countries than for developing countries.
- Also direct to indirect ratio much higher in developed countries.
- Beyond the general importance of the VAT, the other main driver in developed countries is increases in the relative importance of social security contributions, and in developing countries the large decreases in the relative importance of customs taxes.

# Trends in Direct versus Indirect Forms of Taxation – Tax Ratio



## Direct versus Indirect Taxation: Relevance in the Real Economy

- No clear cut choice ....but based on data from a large panel of countries
- While **lowering the tax ratio** would bring **advantages in terms of economic growth** (and possibly other advantages such as attracting FDI), it would also **dampen the ability to rely on automatic stabilizers** for the macro economy and possibly **reduce the scope or ability for income redistribution policies**.
- A 10 percentage point increase in the direct to indirect tax ratio on average would reduce **economic growth** and FDI inflows by **0.39** percent and **0.57** percent respectively, but at the same time it would also reduce **economic volatility** by **0.15** percent and **income inequality** by about **1** percent



# Impact of Tax & Expenditure Policies on Income Distribution\*

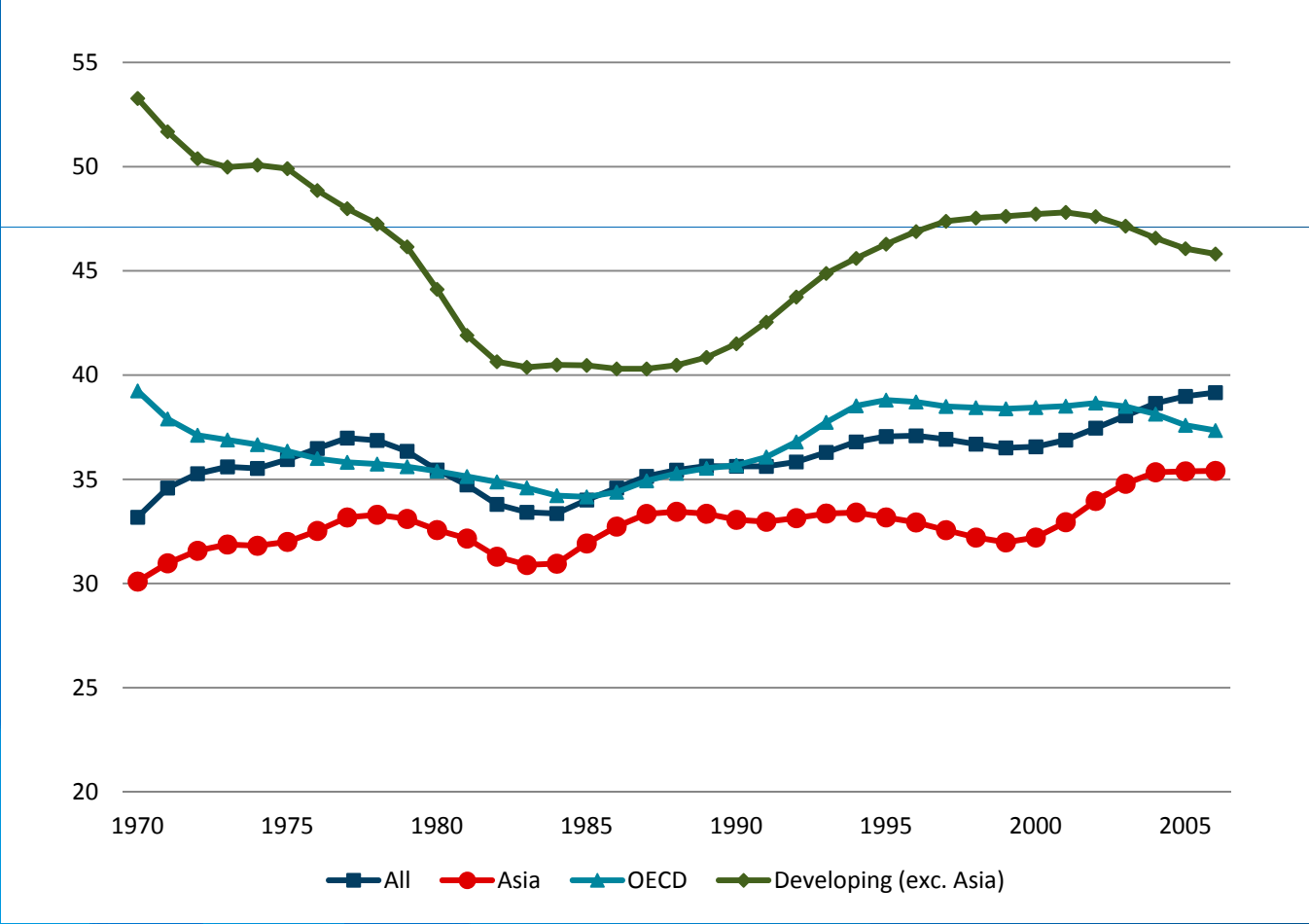
\*Paper with B. Moreno-Dodson and V. Vulovic, *Hacienda Pública Española/Review of Public Economics*, 200-1, 2012

# The Impact of Tax & Expenditure Policies on Income Distribution

- A panel data set covering 150 countries over the period 1970 to 2007. System GMM estimation.
- Inequality is measured by Gini coefficient (gross income, net income and consumption) from UN's World Income Inequality Database (WIID).
- Taxes and public expenditures are measured as collections and spending “as % of GDP”.
- Progressivity of the PIT is measured with the comprehensive index by Sabirianova Peter et al.(2008).
- Controlling for other determinants of income distribution (population growth and composition, schooling, unemployment, globalization, corruption, etc.).

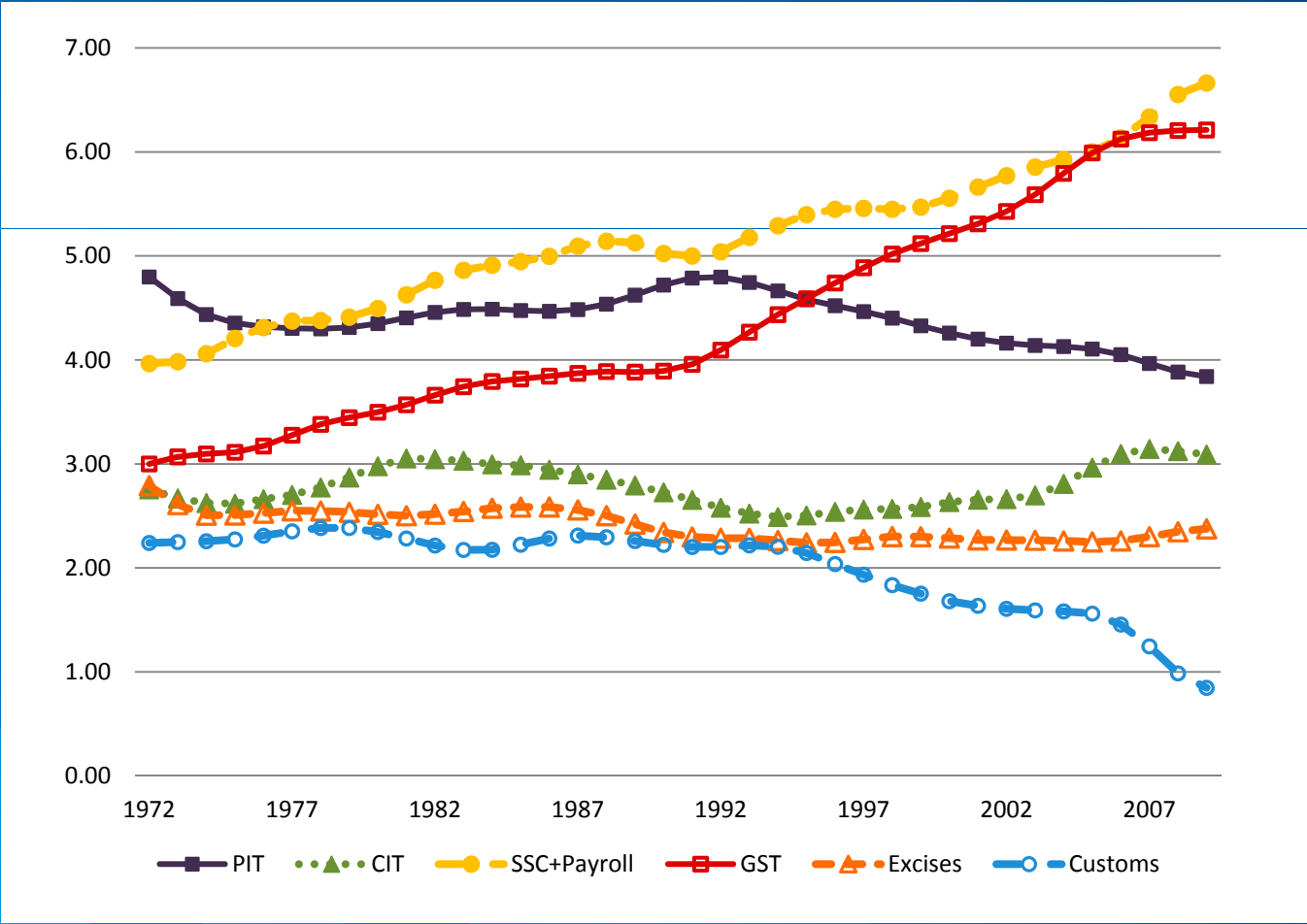
# The Impact of Tax & Expenditure Policies on Income Distribution: Evidence from a Large Panel of Countries

Figure 2. Trends in Income Inequality (Gini: average weighted by population, in percent), 1970-2006 **Asia Focus**



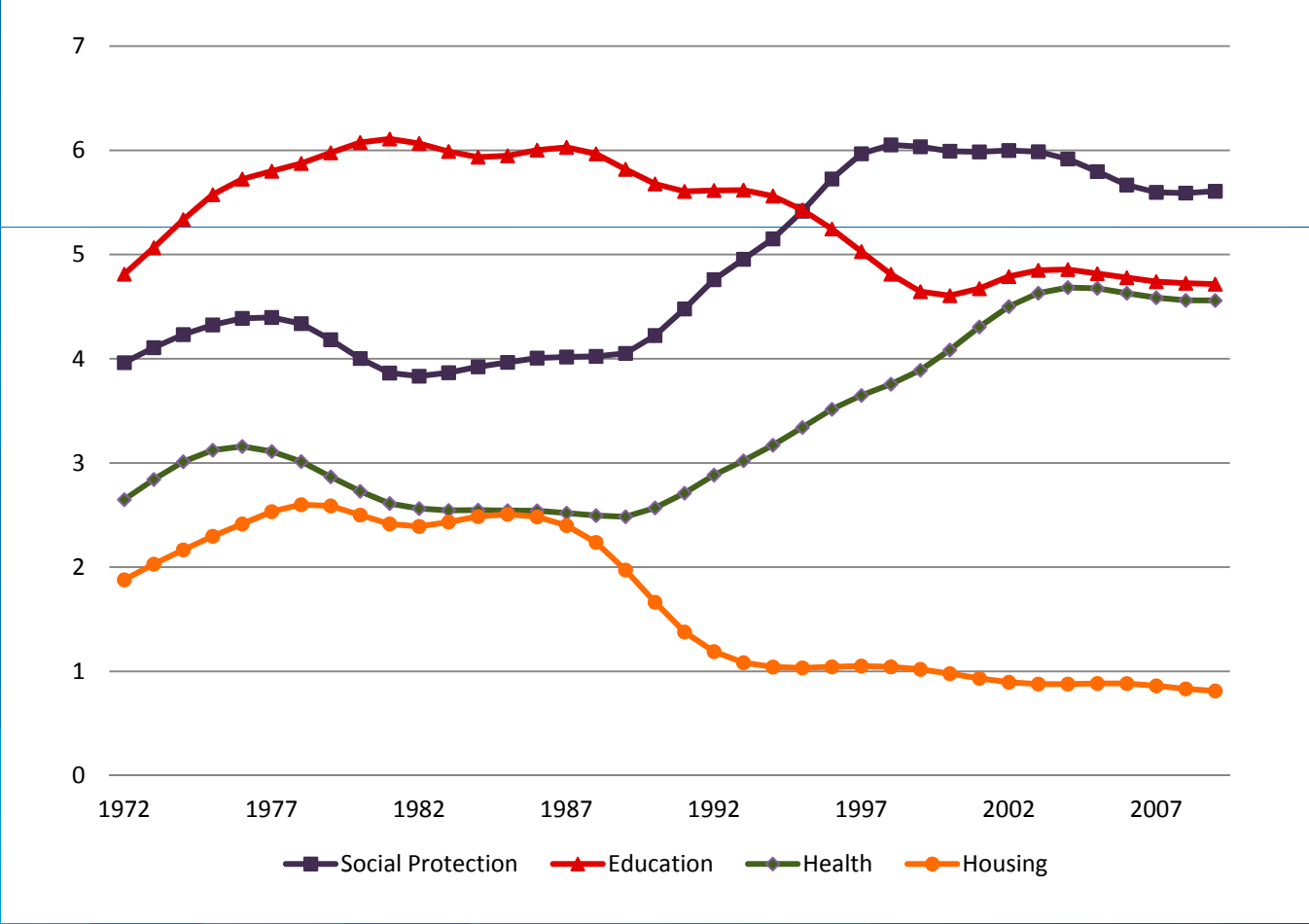
# The Impact of Tax & Expenditure Policies on Income Distribution: Evidence from a Large Panel of Countries

Figure 5. Trends in Taxation (as % of GDP raised with each tax), 1972-2009



# The Impact of Tax & Expenditure Policies on Income Distribution: Evidence from a Large Panel of Countries

Figure 6. Trends in Public Spending (as % of GDP spent on each category), 1972-2009





## The Impact of Tax & Expenditure Policies on Income Distribution: Evidence from a Large Panel of Countries

### Taxation and Income Inequality – Tax Variables

	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PIT	-0.094** (0.043)						-0.105 (0.098)
PIT*Progressivity	-0.005*** (0.001)						-0.004 (0.003)
CIT		-0.703*** (0.109)					-0.925** (0.397)
CIT*Globalization		0.009*** (0.002)					0.013** (0.006)
SSC+Payroll			0.720*** (0.168)				0.234 (0.168)
GST				0.485*** (0.154)			0.314 (0.343)
Excise					0.258 (0.195)		0.988*** (0.301)
Customs						0.130 (0.178)	-0.497 (0.393)
Constant	30.658*** (1.848)	38.326*** (1.917)	39.337*** (5.696)	32.397*** (3.994)	35.120*** (4.698)	30.118*** (4.372)	35.716*** (3.720)
Observations	713	834	873	908	834	871	634
Number of id	69	75	74	78	71	75	56
Sargan	58.41	66.80	37.12	35.21	35.74	39.58	37.69
AR2	0.857	0.727	0.950	0.798	0.960	0.992	1.153

Standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Public Expenditures and Income Inequality – Expenditure Variables

	(2)	(3)	(4)	(5)	(6)
Social Protection	-0.139*** (0.038)				-0.123 (0.097)
Education		-0.134** (0.058)			0.038 (0.175)
Health			-0.695*** (0.030)		-0.415* (0.230)
Housing				-0.768*** (0.068)	-0.139 (0.168)
Constant	33.828*** (1.923)	42.334*** (1.755)	35.543*** (1.525)	24.468*** (4.247)	21.441** (9.714)
Observations	604	643	694	503	410
Number of id	65	67	72	61	54
Sargan	51.23	55.81	55.92	48.34	41.62
AR2	0.988	0.746	0.816	0.650	1.071

Standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## The Impact of Tax & Expenditure Policies on Income Distribution: Evidence from a Large Panel of Countries

### Economic Effects of Taxation and Public Expenditures

Policy Instrument	Estimated Marginal Effect	Increase (+)/Reduction(-) between 1990 and 2005 (percentage points)	Resulting increase (+)/reduction(-) of income inequality (Gini), ceteris paribus (percentage points)
Personal Income Tax	-0.09	-0.61	0.04
Personal Income Tax * Progressivity	-0.01	1.76	
Corporate Income Tax	-0.70	0.24	-0.13
Corporate Income Tax * Globalization	0.01	3.84	
Social Security and Payroll Taxes	0.72	0.98	0.70
Taxes on Goods and Services	0.49	2.10	1.03
Excises	0.26	-0.09	-0.02
Customs Duties	0.13	-0.66	-0.09
<b>Total Effect of Taxes</b>			<b>1.53</b>
Social Protection Expenditures	-0.14	1.57	-0.22
Education Expenditures	-0.13	-0.86	0.12
Health Expenditures	-0.70	2.11	-1.46
Housing Expenditures	-0.77	-0.78	0.60
<b>Total Effect of Expenditures</b>			<b>-0.97</b>

Note: All policy instruments are expressed as % of GDP

# Concluding

- What we find is that there are significant effects of taxation and expenditure policies on economic growth and income distribution.
- However, these effects appear overall to be of small size.
- The main caveat is the quality and the level of aggregation of the data used.
- There is therefore still a great need to invest in data gathering efforts.