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Federalism and Inclusion in Developing Economies*

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Abstract

Using two-step system-GMM on an unbalanced panel data of 105 economies over the period 1987-2016, we present formal statistical evidence that Federalism is a strong predictor of greater income inequality in developing economies. Moreover, Federalism does not predict lower poverty incidence and severity in countries on average, but it may predict higher poverty incidence in developing economies. Thus for a developing economy such as the Philippines, Federalism might constitute a leap from the frying pan into the fire of even greater income inequality and poverty incidence.

Keywords: federalism, poverty, inequality

JEL Classification: D3, I3, O1

1 Introduction

The State of the Debate in the Philippines

The Federalism debate is in full swing with the release of the version by the Consultative Commission headed by former Chief Justice Reynato Puno. The debate has since focused largely on various modalities of Federalism: Should there be 17 regions as the Puno Commission version or 4 as in the CIDS version? Should there be four supreme courts or just one? How many additional layers of bureaucracy should be created in each region and whether this version will break the bank?

It appears that the debate has put the horse before the cart: The prior question of whether Federalism will be good or bad for the Philippines is given a short shrift. The level of debate hardly departs from gratuitous claims and counterclaims. The most prominent argument in favor of Federalism has it seems the tenor: The Philippines under current centralized presidential arrangement is poor, corrupt and suffers from high poverty incidence; many rich countries like USA and Germany are federalist, so Federalism must be the key for the Philippines to becoming rich. By similar reasoning, the high incidence of poverty in the country must be due to the prevailing centralized presidential system. Typical of the proponents' argument is Ochave's (2016): "Let us take note at how America empowered its people and become the most powerful country in the world through federalism." The message is that Federalism caused America's power. Typical likewise is the claim that "A Federal republic will provide better policies and implementation that will enable the people to raise their standard of living" (Ochave, 2016). Again, Federalism will cause better governance thereby resulting in higher standards of living. Well and good except that no evidence is adduced in support. Ochave also claims: "Constitutional experts contend that our unitary system's centralized form is the culprit for poverty in the country". Chief Federalism advocate and Chair of the Consultative Commission Puno is reported to have claimed that "The antidote is federalism.." to all the problems in the country (Pabico, June 2018). Federalism through a decentralization of power and resources will reverse the rut despite the Philippines' dismal record with past decentralization and devolution effort (RA 5185: Decentralization Act of 1967; RA 7162 of 1991: Local Government Code). There are of course sceptics.

Punongbayan (August 2016), calls the federalization in the Philippines a *motion in reverse* because countries that are currently successful federalists like Germany and USA started out with regions and principalities that were effectively predecessor states with their own separate governments, fiscal autonomy and institutions and later brought under one flag. Their federalism was a "coming together" (Stepan and Linz, 2000) while what is contemplated in the Philippines would be a "coming apart". He claims that the resources needed to make this *motion in reverse* productive could be prohibitive. Thus, his title: "Federalism is not a solution". Gatdula (2018) argues that the Philippines is already very decentralized; that "Imperial Manila" as symbol is overblown given the regional origins of past presidents. Opponents also contend in contrast that Venezuela and Sudan are federal and yet are massive failures. The People's Republic of China is not federal and yet is a massive success.

But Germany and USA on the one hand and Venezuela and Sudan on the other are isolated cases that may not generalize. While the burden of evidence is always greater on proponents, opponents of the shift to Federalism will do well to also base their stances on hard evidence. The provision of hard evidence has however been sorely lacking on both sides of the aisle.

The Makati Business Club (MBC) (Feb 2017) Reasearch Report #122 serves as an informative primer to Federalism from a business perspective. It gives the usual features of federalism (autonomy, subsidiarity and solidarity) and the known types (e.g., Cooperative vs Competitive Federalism). The usual virtues are also enumerated: capacity to experiment, better address of local problems, raising stakeholder engagement, etc. On the whole, however, it does the honest thing: without evidence, it does not stake a position on whether Federalism will be good or bad for the country. It just asks the question "Is federalism the key to Inclusive growth?"

A nation cannot embark on a massive regime shift based only on unsupported claims and counterclaims. Are we jumping from the frying pan to the fire or to some healing still waters?

This paper seeks to shed light on this critical black hole in the conversation. What needs to be shown is that Federalism either accords a developing economy a better chance of improvement in generally accepted indices of economic welfare like poverty reduction, income inequality.

The rest of the paper is organized as follows. Section 2 is a brief review of literature on the theoretical arguments for and against federalism and decentralization. Section 3 discusses the methodology and data. Section 4 presents the results. Finally, Section 5 concludes.

2 Review of literature

At the core of the Federalism debate is decentralization, both fiscal and constitutional. The dominant paradigm here, the Tiebout-Oates model, identifies the main tradeoff in fiscal decentralization as that between the national government's responsiveness to subnational preferences and the national government's ability to address externalities to achieve economies of scale (for a good review of the issues, see, Hankla, 2008). Tiebout (1956) introduced "voting with one's feet" and inferred its consequence to be that the efficiency of public goods can be improved if public goods reflected local preferences better. Subnational entities, it is assumed, can better match local public goods with local preferences. Oates (1972) argued that there is in each case an efficient level of fiscal decentralization where public goods diversity does not sacrifice scale economies. The Tiebout-Oates paradigm bats for most public services to be sub-nationally determined and provided as it would notionally be under Federalism.

The Tiebout-Oates consensus has however frayed over time. Where citizen immobility is difficult, citizens cannot sort themselves out geographically by tax and spending preferences (Bardhan, 2002). Others doubt the assumption that the central government with its local listening posts and the capacities it can afford is incapable of accommodating the diverse preferences of citizens (Triesman, 1999, 2000). Defenders of the Tiebout-Oates consensus argue that central governments which respond to national preferences even if better informed will not have the incentives to respond to local preferences through targeted policies. Doubters counter that though subnational bodies may indeed be closer to local residents and their demand for local public goods, the proximity will not matter if the structures of accountability are weak and local governance is beholden to the local power elites whose preferences may be at odds with the preferences of the public (Bardhan, 2002). This view is especially salient in most developing countries. In such situations, it is more difficult to force adherence to hard budget constraint which is crucial for any sustainable governance (see Rodden J, G Ekelund, Litvack, 2003). The summary by Litvack, Ahmad and Bird (1998) of the state of the debate on fiscal decentralization is still *a propos*: "The paper highlights the fact that decentralization is neither good nor bad for efficiency, equity or macro-economic stability; but rather that its effects depend on the institution-specific design." Again, the role of institutions is pivotal which can be said of all governance regimes and not just of Federalism.

Federalism is so much more than fiscal decentralization. Experts make a sharp distinction between "constitutional federalism" (the very one being contemplated in the Philippines) and "fiscal decentralization". Indeed, the result on local economic performance such as corruption may be very different and contradictory (see, e.g., Freile S, M Haque and R Kneller, 2008). Federalism involves additional powers to local elected government and additional layers of bureaucracy that may increase or reduce accountability. Where institutions are weak, most people believe that the additional layers of bureaucracy from Federalism may erode accountability and become satraps for corruption (see, e.g., Fan, Lin and Triesman, 2008); the preferences of local potentates may trump those of the local public and soft budget constraints may become the rule when local jurisdictions are bailed out by the Federal government. Likewise, overcoming externalities to exploit scale economies especially important in low income countries may be hampered.

The message from individual country studies is not encouraging for Federalism in this regard. Adefeo (2017) claims that Nigerian federalism lifted zero number of people out of multidimensional poverty. This goes against the widely held belief that fiscal federalism is negatively correlated with poverty. Mushieka (2018) studies the effect of federalism on Nigeria and Sudan, two of the four federalist states in the African continent. He finds that Nigeria and Sudan have been unable to implement sustainable significant solutions to extreme poverty; the two federal countries are ineffective in the management of the national economy.

This is true even of the USA. Somin (May 2017) focusing on the US Federal experience goes against the widespread perception that states in the US Federal system have been backward-looking or have been bulwarks of discrimination against the poor and minorities. He contends that by allowing "voting with ones feet", it can be and was a force for minorities and the poor. Voting with ones's feet allows marginalized groups to escape to better more embracing jurisdictions. But voting with one's feet is not a prerogative of federalist states alone. Gunn (Jan

2016) ruminates on how the federal system in the USA can become more pro-poor which means it hasn't yet. Republicans want more money in block grants but tempered by the realization that that the block grants program of 1996 has not worked as well as expected. The fact that the issue still pesters in 2016 means that the US Federal System has yet to prove itself on the question of inclusion, it being the one perhaps the single most important goal for decentralization.

Despite its possible virtues for efficiency, Linz and Stepan (2000) argue that the balance of forces under Federalism would tilt towards inequality-enhancing. Stepan and Linz (2011) in a review essay note that the USA "…is now the most unequal long-standing democracy in a developed country in the world". Careras (2015) in a comparative study of European countries shows that overall political decentralization in Europe does not predict well overall income inequality (using Gini); in contrast, countries with higher fiscal autonomy among its regions associate with higher net income inequality.

The point being made here is that the question about whether Federalism is good or bad in practice cannot be resolved in theory; it must be resolved empirically. We limit our scope of this paper to the relationship between Federalism and inclusion, specifically the widely accepted indices of inclusion, viz., the different measures of poverty incidence and severity and income inequality. The literature here is much thinner than with other indices of performance, say corruption, although Bardhan (2002) discussing the relative importance of the goals of decentralization, viz., of efficiency and poverty alleviation, states: "…targeting success in poverty alleviation programs is a more important criterion than the efficiency of regional resource allocation."

The proof of the pie…

Our approach is thus purely empirical: We use a panel data for 105 economies going back three decades cut up into five year averages to reduce the noise from short-run fluctuations. Federalism enters as a dummy variable in a two-step system-GMM regression procedure with the usual set of controls like real GDP growth rate, growth rate-squared, quality of governance, a financial institutions access index, developing economies dummy, trade openness index, region and period dummies.

Following the Federalist classification of countries by the CIA fact book, we test the claim that Federalism reduces both income inequality and poverty. Indeed, if Federalism is inclusive, the Federalism dummy will exhibit a negative and significant association with income Gini and a negative and significant association with the poverty head count and poverty gap ratios.

3 Model and data

We estimate the dynamic panel data equation below:

$$y_{it} = y_{it-1} + \alpha Federal_i + \beta Federal_i * Developing\ economy_i + \gamma_X X_{it} + \gamma_Z Z_{it} + \delta_{it},$$

where y_{it} is the measure of inequality or poverty for country i at time t; $Federal_i$ is a dummy variable, which takes a value of 1 if country 1 has a federal system of government, and 0 otherwise; $Federal_i * Developing\ economy_i$ is the interaction between the federal dummy and $Developing\ economy_i$, which is a dummy variable which takes a value of 1 if country i is a developing economy (to be further defined below), and 0 otherwise; X_{it} is a vector of predetermined and endogenous regressors; Z_{it} is a vector of strictly exogenous regressors; and δ_{it} is the error term, which includes the fixed-individual effects.

To estimate the equation above, we use Blundell and Bond's (1998) and Windmeijer's (2005) two-step system-GMM (SGMM) procedure. This procedure has the following advantages: (1) It allows us to account for endogeneity, employing instruments that include the lagged values of the regressand and regressors; (2) Two-step SGMM is also more suitable (i) for correcting the Nickell bias in large n (cross-section length) and small t (number of periods) panels; (ii) in the absence of good instrumental variables, which is often the case when dealing with cross-country data; (iii) for series that follow or almost follow a "random" walk, which is usually the case involving macroeconomic data; and (3) Windmeijer's (2005) two-step correction procedure produces more consistent and efficient estimates, mitigating the finite-sample bias.

The dependent variable is alternatively defined as follows:

- As a measure of inequality, the Gini coefficient is used, since this is readily available across countries. The higher the Gini coefficient, the more unequal the income distribution of a given country at a given time.
- As measures of poverty, we use the poverty gap ratios at the $1.9/day and $3.2/day poverty lines and the poverty headcount ratios at the $1.9/day and $3.2/day poverty lines. The poverty gap ratio is the average shortfall of the total population from the poverty line (expressed as a percentage of the poverty line), and reflects both the severity and incidence of poverty. The poverty headcount ratio is the percentage of the total population that lives below the poverty line, and is a measure of the incidence of poverty.

The X vector consists of the following determinants:

- Real GDP growth rate and its squared value to verify if a Kuznets relationship exists for both inequality and poverty, in line with Dawson (1997) and Barro (2000, 2008);
- Developing economy dummy, which takes the value of 1 if country i has a real GNI per capita of not more than USD 10,000 in 1992;
- Trade openness, which is computed as the percentage of the sum of exports and imports in GDP. This is included to verify the hypothesis that greater trade openness may raise income inequality (Barro, 2000; 2008), but has a poverty-alleviating effect (Winters et al., 2004);
- Financial institutional access index of the International Monetary Fund (IMF), which is defined as bank branches per 100,000 adults and ATMs per 100,000 adults. A higher financial institutional access (FIA) index is expected to associate negatively with Gini inequality. This is contrast with Jauch and Watzka (2015) who find an increasing and significant effect of the usual financial development measure (i.e., credit-to-GDP ratio) on income inequality on an unbalanced panel data set of 138 countries for the period 1960-2008. The FIA-poverty nexus is, however, subject to more ambiguity (see, for instance, Jalilian and Kirkpatrick, 2002; Honohan, 2004; Beck, 2007; Jeanneney and Kpodar, 2011; Donou-Adonsou and Sylwester, 2016);
- Inter-Country Risk Guide (ICRG) index as a measure of institutional quality.

The Z vector consists of regional dummies in accordance with World Bank definitions (i.e., Central Asia, East Asia and the Pacific, Latin America and the Caribbean, Middle East and North Africa, South Asia, Sub-Saharan Africa) and period dummies to account for common shocks to trend.

Except for ICRG, the variables are lifted from the World Development Indicators. The data set is an unbalanced panel, consisting of 105 countries spanning a 30-year period of five-year averages from 1987 to 2016.

Table 1. Summary statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Gini	300	40.16	9.35	17.25	64.80
Poverty gap (at $1.9/day pov. line)	261	3.99	6.55	0.00	46.10
Poverty gap (at $3.2/day pov. line)	261	8.94	11.75	0.00	64.80
Poverty headcount ratio (at $1.9/day pov. line)	261	10.86	15.85	0.00	86.00
Poverty headcount ratio (at $3.2/day pov. line)	261	21.14	23.17	0.00	96.20
Federal dummy	300	0.13	0.34	0.00	1.00
Real GDP growth rate	300	3.67	2.56	-3.19	18.58
Developing economy	300	0.78	0.41	0.00	1.00
Trade openness	300	80.51	43.52	18.07	382.24
Financial institutions access index	300	0.36	0.29	0.01	1.00
ICRG	300	68.99	7.77	47.90	90.83
Central Asia	300	0.03	0.18	0.00	1.00
East Asia and the Pacific	300	0.08	0.27	0.00	1.00
Latin America and the Caribbean	300	0.27	0.44	0.00	1.00
Middle East and North Africa	300	0.08	0.27	0.00	1.00
South Africa	300	0.04	0.20	0.00	1.00
Sub-Saharan Africa	300	0.17	0.38	0.00	1.00
1992-1996	300	0.11	0.32	0.00	1.00
1997-2001	300	0.14	0.35	0.00	1.00
2002-2006	300	0.18	0.38	0.00	1.00
2007-2011	300	0.30	0.46	0.00	1.00
2012-2016	300	0.26	0.44	0.00	1.00

Table 1 presents the summary statistics of the variables used. 13% of the countries in the estimation sample (i.e., 13 countries) have federal systems of government. 78% of the countries are developing economies.[1] The average poverty gap and headcount ratios at \$3.2/day poverty line are about twice as much as the ratios at the \$1.9/day poverty line. In terms of the Gini coefficient, its average of 40.16 is quite close to its median of 39.85.

4 Results

In what follows, we present the estimation results. Section 4.1 presents and discusses the results for income inequality and federalism while section 4.2 presents and discusses the results for the alternative measures of poverty and federalism.

4.1 Income Inequality

Table 2 presents the system-GMM results with the Gini coefficient as the dependent variable. The federal government dummy has a negative and significant (at the < 1% level of significant) coefficient, indicating that, on average, federalism negatively associates with income inequality. However, the interaction term between the federal government dummy and the developing economy dummy has a positive and significant (at the < 1% level of significance) coefficient, indicating that federalism has an inequality-increasing effect in developing economies. Thus, the total marginal effect of federalism on Gini inequality (i.e., the sum of the two coefficients) is 5.16, which is significant at the < 1% level of significance. These results are in line with the arguments and results in Careras (2015), specific to European economies.

[1] See Tables A1 and A2 in the Appendix for a list of countries included in the regressions and for the list of countries that are tagged as Federal and developing, respectively.

Table 2. Inequality and federalism

Dependent variable: Gini coefficient

Determinant	Coefficient	Std. error	p-value	95% conf. interval	
Gini coefficient (-1)	0.62	0.01	0.00	0.60	0.64
Federal government dummy	-4.44	0.72	0.00	-5.86	-3.02
Federal*Developing economy	9.60	1.01	0.00	7.60	11.61
GDP growth	0.64	0.08	0.00	0.49	0.80
GDP growth-squared	-0.07	0.01	0.00	-0.09	-0.06
Developing economy	0.82	0.51	0.11	-0.20	1.84
Trade openness	-0.02	0.00	0.00	-0.02	-0.01
Financial institutional access index	-2.48	0.55	0.00	-3.57	-1.38
ICRG	0.24	0.01	0.00	0.23	0.26
Regionial dummies					
Central Asia	-0.57	0.61	0.36	-1.79	0.65
East Asia and the Pacific	-0.78	0.39	0.05	-1.55	0.00
Latin America and the Caribbean	4.46	0.39	0.00	3.68	5.24
Middle East and North Africa	-0.03	0.80	0.97	-1.61	1.55
South Asia	-2.12	0.55	0.00	-3.22	-1.02
Sub-Saharan Africa	2.78	0.47	0.00	1.85	3.71
Period dummies					
1992-1996	-2.48	0.20	0.00	-2.87	-2.09
1997-2001	-2.13	0.18	0.00	-2.48	-1.77
2002-2006	-2.70	0.23	0.00	-3.16	-2.24
2007-2011	-3.47	0.29	0.00	-4.05	-2.90
2012-2016	-3.26	0.34	0.00	-3.93	-2.58
Number of observations	300		Arellano-Bond AR(2) test		0.74
Number of countries	105		Hansent test p-value		0.35
Number of instruments	90				

The following control variables perform well against canonical expectations. Real GDP growth has a positive, but tapering effect on Gini inequality (significant at the < 1% level of significance), in line with the Kuznets Hypothesis. Evaluated at the mean, a percentage-point increase in the real GDP growth rate translates into a 0.06-point increase in Gini inequality. However, evaluated at the 75th percentile rate GDP growth rate (= 5.02), a percentage-point increase in the real GDP growth rate results in a -0.13-point decrease in Gini inequality. Developing economy status associates with higher income inequality. Moreover, as expected greater financial institutional access associates with lower income inequality, suggesting that particular aspects of financial development may improve income inequality, in contrast with Jauch and Watzka (2015).

Unexpected and yet not unexplainable are the signs of trade openness and ICRG. Greater trade openness associates with lower income inequality. This result is in line with Silva (2007), who finds an income inequality-decreasing effect of trade in Northern Mozambique. A higher ICRG index, indicating less overall political risk, associates with a worsening of income inequality, as is in line with Perera and Lee (2013), who find the same for improvements in corruption, democratic accountability and bureaucratic quality in nine developing Asian economies.

4.2 Poverty Incidence

Table 3 presents the estimation results for the alternative measures of poverty. Columns 1 and 2 are for the poverty headcount ratios at the $1.9/day and $3.2/day poverty line, respectively. Columns 3 and 4 are for the poverty gap measures at the $1.9/day and $3.2/day poverty line, respectively.

The federal government dummy has a positive and significant (at the 1% level of significance) unconditional effect on all poverty measures, implying that Federal states, on average, not only tend to exhibit higher poverty incidence, but also higher poverty intensity. However, the interaction term between the federal government dummy and the development economy dummy, is not significant in all regressions. The total marginal effects for developing economies are as follows:

- Federalism associates with a 1.90-point increase (= 3.32 – 1.07) in the poverty gap (at the $1.9/day poverty line). However, this total marginal effect is not significant.
- Federalism associates with a 5.98-point decrease (= 2.54 + 3.44) in the poverty gap (at the $3.2/day poverty line). However, this total marginal effect is again not significant.
- Federalism associates with a 4.06-point increase (= 0.44 + 3.62) in the poverty head count ratio (at the $1.9/day poverty line). This total marginal effect is significant at the 5% level of significance.

- Federalism associates with a 1.96-point increase (= 2.04 – 0.08) in the poverty headcount ratio (at the $3.2/day poverty line). However, this total marginal effect is not significant.

In sum, either federalism has either no effect or a poverty-raising effect. Federalism thus appears to be on the wrong side of inclusion – in terms of both poverty reduction and greater income equality!

The nexus between real GDP growth and each of the poverty measure again exhibits a Kuznets-type relationship: Real GDP growth rate associates positively and significantly (at the 1% level of significance), but a decreasing rate. Evaluated at the mean level of real GDP growth (= 3.67), the total marginal effect of real GDP growth on each poverty measure is 1.44 in column 1; 1.81 in column 2; 0.59 in column 3 and 1.00 inn column 4. These positive total marginal effects of real GDP growth hold even at the maximum GDP growth rate level.

Being a developing economy also positively (and significantly, at the 1% level of significance) associates with poverty. This result is robust for all alternative measures of poverty.

Better institutional quality, as measured by a higher ICRG index, associates negatively (and significantly, at the 1% level of significance) with poverty. This is in line with Perera and Lee (2013), who find that better government stability and law and order result in reduced poverty, using system-GMM on nine developing Asian economies for the period 1985-2009.

Interestingly, both the trade openness and financial institutional access measures associate positively (and significantly, at the 1% level of significance) with each poverty measure.

Table 3. Poverty measures and federalism

Dependent variable: Poverty headcount ratio or poverty gap

	Poverty headcount ratio		Poverty gap	
	(1)	(2)	(3)	(4)
Determinant	$1.9/day pov. line	$3.2/day pov. line	$1.9/day pov. line	$3.2/day pov. line
Poverty headcount ratio (-1)	0.03	0.06	0.03	0.04
	[0.01]***	[0.02]***	[0.01]***	[0.01]***
Federal government dummy	3.32	2.54	0.44	2.04
	[2.39]	[4.05]	[0.65]	[1.88]
Federal*Developing economy	-1.42	3.44	3.62	-0.08
	[4.42]	[7.85]	[2.13]*	[3.65]
GDP growth	1.66	2.11	0.65	1.16
	[0.09]***	[0.19]***	[0.03]***	[0.73]***
GDP growth-squared	-0.03	-0.04	-0.01	-0.02
	[0.00]***	[0.01]***	[0.00]***	[0.00]***
Developing economy	8.96	5.50	4.77	6.81
	[1.19]***	[2.28]***	[0.58]***	[0.85]***
Trade openness	0.03	0.02	0.01	0.02
	[0.01]***	[0.01]**	[0.00]***	[0.00]***
Financial institutional access index	20.80	28.55	8.31	14.11
	[2.38]***	[6.41]***	[0.88]***	[2.64]***
ICRG	-0.19	-0.14	-0.08	-0.12
	[0.03]***	[0.06]**	[0.01]***	[0.02]***
Regionial dummies				
Central Asia	-3.09	0.19	-1.80	-4.40
	[4.90]	[9.11]	[2.03]	[4.39]
East Asia and the Pacific	-1.32	1.91	-1.79	-1.12
	[1.40]	[2.72]	[0.37]***	[1.14]
Latin America and the Caribbean	1.41	5.94	-0.94	0.11
	[1.30]	[3.58]	[0.53]*	[1.21]
Middle East and North Africa	0.68	2.42	-0.62	0.03
	[0.96]	[1.95]	[0.35]*	[0.91]
South Asia	-0.67	-2.33	-3.36	-1.38
	[2.39]	[4.26]	[1.34]*	[1.55]
Sub-Saharan Africa	0.65	7.00	-1.11	-0.60
	[1.31]	[4.51]	[0.65]*	[1.44]
Period dummies	Yes	Yes	Yes	Yes
Number of observations	261	261	261	261
Number of countries	91	91	91	91
Number of instruments	90	90	90	90
Arellano-Bond AR(2) test	0.23	0.30	0.30	0.23
Hansen test p-value	0.64	0.53	0.60	0.57

Standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

The Federalism dummy in each case has a positive yet insignificant correlation with poverty incidence and poverty severity. In the case of developing economies, federalism also has no significant effect on poverty incidence or its severity. In poverty severity, wherever it is barely significant ($1.9/day poverty line), Federalism associates rather with rising poverty severity.

5. Conclusion

The pro-Federalism position claims that Federalism will cause poverty to fall and the distribution of income to be more equal. Our regression results bear neither of these claims. On the contrary, Federalism strongly predicts greater income inequality in developing countries. Our results also show that Federalism does not predict reduced poverty incidence and severity on average; it does not reduce poverty incidence and may increase poverty severity in developing economies.

While it is true that cross-country ensemble results may not apply to a particular individual country in the sample since the results pertain to the average, one has to establish that the country in question is exceptional -- in this case, in a good sense. Case in point: The successful miracle economies in East Asia come under the rubric of "East Asian Exceptionalism". But, as is widely recognized, the Philippines is "the exception" to the "East Asian Exceptionalism." It is East Asian only in geography but not in performance, especially in the last thirty years.

On the debate whether we should shift to Federalism, if inclusion is the criterion, our research results find no support in favor of such despite the claims of proponents. Indeed, the results show that poverty incidence and income inequality could become worse. The contemplated shift appears to be a jump from the frying pan to the fire.

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Appendix

Table A1. Countries included in the regressions

Inequality regression				Poverty regressions			
Country	Freq.	Country	Freq.	Country	Freq.	Country	Freq.
Albania	2	Korea, Rep.	2	Austria*	1	Namibia	1
Algeria	1	Latvia	2	Bolivia	1	Netherlands*	3
Argentina	5	Liberia	1	Burkina Faso	1	Nicaragua	1
Armenia	3	Lithuania	2	Canada*	1	Niger	2
Australia*	4	Luxembourg*	2	China	1	Norway*	1
Austria*	2	Madagascar	4	Colombia	2	Pakistan	2
Azerbaijan	3	Malawi	2	Congo, Dem. Rep.	1	Papua New Guinea	1
Bangladesh	4	Malaysia	4	Congo, Rep.	1	Paraguay	3
Belarus	3	Mali	3	Cote d'Ivoire	1	Poland	5
Belgium*	2	Mexico	4	Cyprus*	2	Qatar*	3
Bolivia	3	Moldova	3	Czech Republic*	1	Russian Federation	2
Botswana	1	Mongolia	4	Denmark*	1	Saudi Arabia*	1
Brazil	5	Morocco	1	Ecuador	2	Senegal	2
Bulgaria	2	Mozambique	1	Egypt, Arab Rep.	2	Serbia	3
Burkina Faso	4	Namibia	1	Gabon*	1	Sierra Leone	3
Cameroon	2	Netherlands*	2	Gambia, The	2	Singapore*	3
Canada*	5	Nicaragua	4	Germany*	3	Slovak Republic*	3
Chile	5	Niger	2	Ghana	2	Slovenia*	2
China	1	Nigeria	1	Greece*	1	South Africa	5
Colombia	4	Norway*	2	Guatemala	5	Spain*	4
Congo, Rep.	1	Pakistan	5	Guinea	3	Sri Lanka	2
Costa Rica	5	Panama	5	Guinea-Bissau	1	Sudan	1
Cote d'Ivoire	5	Paraguay	5	Guyana	5	Suriname	4
Croatia	1	Peru	3	Haiti	1	Sweden*	4
Cyprus*	2	Poland	4	Honduras	5	Switzerland*	5
Czech Republic*	3	Portugal*	2	Hong Kong SAR, China*	5	Tanzania	5
Denmark*	2	Romania	3	Hungary	4	Thailand	2
Dominican Republic	5	Russian Federation	4	Iceland*	5	Togo	3
Ecuador	5	Senegal	4	India	4	Trinidad and Tobago	5
Egypt, Arab Rep.	5	Serbia	2	Indonesia	1	Tunisia	5
El Salvador	5	Sierra Leone	1	Iran, Islamic Rep.	2	Turkey	3
Estonia	2	Slovak Republic*	3	Ireland*	5	Uganda	5
Ethiopia	1	Slovenia*	2	Israel*	3	Ukraine	3
Finland*	2	South Africa	3	Italy*	3	United Arab Emirates*	3
France*	2	Spain*	2	Jamaica	5	United Kingdom*	3
Gambia, The	1	Sri Lanka	3	Japan*	5	United States*	5
Germany*	2	Sweden*	2	Jordan	3	Uruguay	2
Ghana	1	Switzerland*	1	Kazakhstan	4	Venezuela, RB*	1
Greece*	2	Thailand	5	Kenya	5	Vietnam	1
Guatemala	3	Togo	2	Korea, Rep.	5		
Guinea	3	Trinidad and Tobago	1	Kuwait*	5		
Guinea-Bissau	1	Tunisia	4	Latvia	2		
Honduras	5	Turkey	3	Lebanon	3		
Hungary	3	Uganda	5	Liberia	4		
Iceland*	2	Ukraine	2	Lithuania	1		
Iran, Islamic Rep.	5	United Kingdom*	2	Luxembourg*	5		
Ireland*	2	United States*	5	Madagascar	5		
Israel*	4	Uruguay	2	Malawi	5		
Italy*	2	Venezuela, RB*	3	Malaysia	4		
Jamaica	3	Vietnam	4	Mali	4		
Jordan	3	Yemen, Rep.	1	Malta*	4		
Kazakhstan	4	Zambia	5	Myanmar	1		
Kenya	2						
Total number of observations: 300				Total number of observations: 261			

*With real GNI per capita of more than $10,000 in 1992

Table A2. Countries with a federal form of government

Inequality regression		Poverty regressions	
Country	Frequency	Country	Frequency
Austria*	2	Austria*	1
Belgium*	2	Canada*	1
Brazil	5	Germany*	3
Canada*	5	India	4
Ethiopia	1	Malaysia	4
Germany*	2	Pakistan	2
Malaysia	4	Switzerland*	5
Mexico	4	United Arab Emirates*	3
Nigeria	1	United States*	5
Pakistan	5	Venezuela, RB*	1
Switzerland*	1	Total	29
United States*	5		
Venezuela*	3		
Total	40		

*With real GNI per capita of more than $10,000 in 1992