Volume LX No. 2
December 2023

p-ISSN 1655-1516
e-ISSN 2984-8156

The Philippine Review of Economics

Editor-in-Chief
EMMANUEL F. ESGUERRA

Editorial Advisory Board
EMMANUEL S. DE DIOS
RAUL V. FABELLA
HAL CHRISTOPHER HILL
CHARLES Y. HORIOKA
KIAN GUAN LIM
ROBERTO S. MARIANO
JOHN VINCENT C. NYE
GERARDO P. SICAT
JEFFREY G. WILLIAMSON

Associate Editors
LAWRENCE B. DACUYCUY
FRANCISCO G. DAKILA JR.
JONNA P. ESTUDILLO
MARIA S. FLORO
GILBERTO M. LLANTO

Managing Editor
HONLANI RUTH R. RUFO

ARTICLES IN THIS ISSUE

Shared prosperity characterized by four development goals: pro-poor growth, pro-poor development, inclusive growth, and inclusive development — **Nanak Kakwani, Zakaria Siddiqui**

Piketty inequality, meta-market failures and the new role of the state — **Raul V. Fabella**

Diamond and Dybvig in developing economies and in a digital world — **Margarita Debuque-Gonzales**

Toward a general neoclassical theory of economic growth — **Delano S. Villanueva**

Measuring fiscal policy sustainability in developing Asia: what does the Markov Switching Augmented Dickey-Fuller Test tell us? — **Dannah Ysabel M. Premacio, Ezra Rebecca G. Vidar, Toby C. Monsod**

The 16th century *Carrera del Pacífico*: its sailor-merchants and their trade goods — **Kristyl Obispado**

A joint publication of the
University of the Philippines
School of Economics
and the **Philippine Economic Society**

The Philippine Review of Economics

A joint publication of the UP School of Economics (UPSE)
and the Philippine Economic Society (PES)

EDITOR-IN-CHIEF
Emmanuel F. Esguerra
UP SCHOOL OF ECONOMICS

EDITORIAL ADVISORY BOARD
Emmanuel S. de Dios
UP SCHOOL OF ECONOMICS

Raul V. Fabella
UP SCHOOL OF ECONOMICS

Hal Christopher Hill
AUSTRALIAN NATIONAL UNIVERSITY

Charles Y. Horioka
KOBE UNIVERSITY

Kian Guan Lim
SINGAPORE MANAGEMENT UNIVERSITY

Roberto S. Mariano
UNIVERSITY OF PENNSYLVANIA

John Vincent C. Nye
GEORGE MASON UNIVERSITY

Gerardo P. Sicat
UP SCHOOL OF ECONOMICS

Jeffrey G. Williamson
HARVARD UNIVERSITY

ASSOCIATE EDITORS
Lawrence B. Dacuycuy
DE LA SALLE UNIVERSITY

Francisco G. Dakila Jr.
BANGKO SENTRAL NG PILIPINAS

Jonna P. Estudillo
UNIVERSITY OF THE PHILIPPINES

Maria S. Floro
AMERICAN UNIVERSITY (WASHINGTON D.C.)

Gilberto M. Llanto
PHILIPPINE INSTITUTE FOR DEVELOPMENT STUDIES

MANAGING EDITOR
Honlani Ruth R. Rufo
UP SCHOOL OF ECONOMICS

Aims and Scope: The *Philippine Review of Economics* (PRE) invites theoretical and empirical articles on economics and economic development. Papers on the Philippines, Asian and other developing economies are especially welcome. Book reviews will also be considered.

The PRE is published jointly by the UP School of Economics and the Philippine Economic Society. Its contents are indexed in the *Journal of Economic Literature*, EconLit, and RePec. PRE's readership includes economists and other social scientists in academe, business, government, and development research institutions.

Publication Information: The PRE (p-ISSN 1655-1516; e-ISSN 2984-8156) is a peer-reviewed journal published every June and December of each year. A searchable database of published articles and their abstracts is available at the PRE website (http://pre.econ.upd.edu.ph).

Subscription Information:
Subscription correspondence may be sent to the following addresses:

- css@pssc.org.ph
- PSSC Central Subscription Service,
  PSSCenter, Commonwealth Avenue, 1101, Diliman,
  Quezon City, Philippines.
  P.O. Box 205, UP Post Office, Diliman, Quezon City,
  Philippines 1101
  PHONE: 922-9627, FAX: 924-4178/926-5179

Submissions: Authors may submit their manuscripts to the addresses below:

- pre.upd@up.edu.ph
- The Editor, The Philippine Review of Economics, Rm 237, School of Economics, University of the Philippines, Diliman, Quezon City, 1101.

Manuscripts must be written in English and in MS Word format. All graphs and tables must be in Excel format. Submission of a manuscript shall be understood by the PRE as indicating that the manuscript is not under consideration for publication in other journals. All submissions must include the title of the paper, author information, an abstract of no more than 150 words, and a list of 3–4 keywords. Complete guidelines can be viewed in the PRE's website.

Copyright: The *Philippine Review of Economics* is protected by Philippine copyright laws. Articles appearing herein may be reproduced for personal use but not for mass circulation. To reprint an article from *PRE*, permission from the editor must be sought.

Acknowledgements: The PRE gratefully acknowledges the financial support towards its publication provided by the Philippine Center for Economic Development (PCED). The Review nonetheless follows an independent editorial policy. The articles published reflect solely the editorial judgement of the editors and the views of their respective authors.

The Philippine Review of Economics

Vol. LX No. 2
December 2023

p-ISSN 1655-1516
e-ISSN 2984-8156
DOI: 10.37907/ERP3202D

1 Shared prosperity characterized by four development goals: pro-poor growth, pro-poor development, inclusive growth, and inclusive development
Nanak Kakwani
Zakaria Siddiqui

25 Piketty inequality, meta-market failures and the new role of the state
Raul V. Fabella

39 Diamond and Dybvig in developing economies and in a digital world
Margarita Debuque-Gonzales

64 Toward a general neoclassical theory of economic growth
Delano S. Villanueva

81 Measuring fiscal policy sustainability in developing Asia: what does the Markov Switching Augmented Dickey-Fuller Test tell us?
Dannah Ysabel M. Premacio
Ezra Rebecca G. Vidar
Toby C. Monsod

104 The 16th century *Carrera del Pacífico*: its sailor-merchants and their trade goods
Kristyl Obispado

The Philippine Review of Economics
60(2):25-38. DOI:10.37907/2ERP3202D

Piketty inequality, meta-market failures and the new role of the state

Raul V. Fabella*
University of the Philippines
and
Asian Institute of Management

We argue that the celebrated 2014 Piketty thesis that thriving markets in advanced economies generate an ever increasing income inequality restores policy relevance to the Second Fundamental Theorem of Welfare and restores the role of the state in economics which the First Fundamental Theorem of Welfare seems, and the neoconservatives claim, to have marginalized. The Piketty thesis disproves the Kuznets hypothesis which says that the equity-deficit of market allocation is a temporary inconvenience which will dissipate as per capita income grows, thus, making state intervention unnecessary. Policies that enhance per capita growth may then replace policies of direct redistribution in the pursuit of equity. Piketty insists that this phenomenon is not due to some garden variety market failure but is due to the very dynamic that drives market prosperity, viz., private ownership of and the free enterprise deployment of capital. It is thus a meta-market failure. In properly functioning capitalist markets henceforth, the state still needs to directly push back on this meta-market failure to save capitalism from its own excesses and democracy from becoming collateral damage.

JEL classification: D31, D33, D63, 04
Keywords: Piketty inequality, role of the state, meta-market failure, fundamental theorems of welfare, well-behaved markets

1. Introduction

Income distribution and income inequality—issues beloved to Adam Smith, David Ricardo, Karl Marx, the Cambridge School, Joseph Stiglitz [1969] and John Rawls [1971]—and long been in eclipse, are back. The trigger is the book *Capital in the twenty-first century* by Thomas Piketty [2014]. Piketty, using an impressive array of empirical evidence running through two centuries and an ingenious use of barely extant tax data, tracks the trajectory of income distribution and argues that ever rising income inequality is the norm in thriving market economies. It flies in the face of the venerable Kuznets [1955] hypothesis which claimed that

* Address all correspondence to rvfabella@up.edu.ph.

in the process of development, income inequality first rises, reaches an apex and then falls as income per capita rises as it were autonomously; that the increasing inequality phase is just the imperative of a catch-up economy life cycle and not of the mature phase. In the long run in the Kuznets economy, income distribution is headed towards greater equality as economies prosper and mature. Piketty [2018] has since then written a sequel *Capital and ideology* which to his own declared taste is better, but to us seems to be only a continuation of his heroic attempt at an explanation of the runaway inequality outcome in the West; that it is ideology and fickle history, what he calls the *sacralization of property* not technology that supports, and is in turn supported by his preferred formula ($r > g$). In this new tome which extends his framework to less developed economies, he explicates his own prescription for a more equitable future for humanity, *participatory socialism*, which recommends, among others, a ponderous if well-reasoned proposal for a heavy government intervention in the form of a radical income and wealth taxation to finance a generous grant of EUR 125,000 to every citizen at age 25 to improve every poor citizen's bargaining position in the market. We will argue that this echoes the pursuit of equity in the Second Fundamental Theorem of Welfare (SFTW) and analogously in the Nash bargaining solution by redistributing initial assets which form the bargaining power (maximin position) of players. While there is no doubt that the new book ("Piketty 2018" from hereon) will only polish Piketty's claim to a Nobel Memorial Prize in the very near future, it is clearly second fiddle to his *magnum opus* of 2014 ("Piketty 2014" from hereon), which is the focus of this essay. His participatory socialism seems therefore to be more a "capitalism with socialist characteristics;" that is, a capitalism shorn of the "sacralization of capital".

At its starkest, the Piketty 2014 thesis rests on painstakingly constructed trajectories showing the income and wealth inequality (as shares of the richest income classes rather than as Gini coefficient) in income in developed countries (USA, France, Great Britain, and Europe) over the last 200 years. For example, on wealth inequality, there was a steady rise from about 1810 to a peak around 1910, followed by a marked decline until 1970 and a steady rise thereafter up to 2010.[1]To some, it seems a stretch from these trajectories to the bold Piketty conclusion that capitalism is apoptotic (see, e.g., Rogoff [2014]). It is reminiscent of the Joseph Schumpeter's response to his own query, "Can capitalism survive?" to start his influential 1942 book *Capitalism, socialism and democracy*; the response: "No." Piketty's evidence agrees with Kuznets' inequality trajectory from 1910 until 1970 and especially in the 30 years after World War II, but argues that this was an abnormal period characterized by two world wars and massive wealth destruction. Geopolitical developments after 1980 also drove inequality aversion to the sidelines: the Thatcher-Reagan Revolution, the collapse in 1989 of the Socialist Challenge to Capitalism, and Deng Xiaoping's Revolution in

[1] See, especially, Cassidy [2014].

People's Republic of China (PRC)—all happening in the 1980s and all involving a headlong embrace of the market. After all, the incentives needed for investment and growth behind a thriving market economy cannot be imagined without some inequality both as pre-condition and resultant [Chaudhuri and Ravallion 2006]. The post-1980 era became dominated by excessive inequality tolerance. The PRC in the last quarter century is exhibit A for inequality tolerance. Since poverty reduction made great strides in China in the Deng Xiaoping era in the face and most likely because of sustained rapid growth, soaring income inequality is viewed simply as a necessary inconvenience.

1.1. Inequality and growth: the development landscape

Inequality, however, stubbornly refused to quit the field figuring consistently as a factor in per capita growth regressions. Its effect on growth was predominantly negative (Alesina and Rodrik [1994]; Barro [2000]) but not in all cases (Forbes [2000]; Banerjee and Duflo [2003]), and sometimes none at all [Ravallion 2001]. Likewise, high inequality raised unemployment [Easterly 2007] and raised infant mortality (Waldmann [1992]; Tacke and Waldmann [2009]). But directly targeting greater income equity risked slowing economic growth (Ravallion [2001]; Gupta et al. [1999]) which was—and still is—viewed as the principal lever for poverty reduction (*The Economist* [2000]; Dollar and Kraay [2002]). Piketty 2018, for whom "trickle down" is a laughable excuse, of course, disagrees. On another matter it appears that the pandemic which wreaked havoc on poverty incidence in emerging economies[2] has had a modest impact on emerging markets within-country inequality measured by the Gini coefficient: a rise of 0.3 points, whereas it has been declining by about that rate per year in the last two decades. The income share of the richest one percent of income distribution declined by one percent; the share of the poorest 40 percent rose by 0.6 percent [World Bank 2022]. So the COVID-19 pandemic, which no doubt demonstrated a great resilience and forbearance of peoples to a drastically changed environment of massive threat, impacted income inequality and attitudes to it only modestly.

The first serious post-Great Recession shot for inequality aversion was fired over the sustainability of growth in the development landscape. It was widely believed that poverty reduction and the decrease in unemployment follow only when rapid growth is sustained over long periods, rather than when spasmodic [Berg et al. 2008]. But what factors contribute to sustained growth? This was the focus of the widely cited Berg and Ostry [2011] piece "Inequality and unsustainable growth: two sides of the same coin?" They asked the question: what factors prolong the duration of episodes of growth? As expected, the usual attractors of investment, namely, good institutions, openness, and stable macro

[2] The World Bank in January 2022 estimated a 0.9 percent rise in poverty incidence in 34 countries, but especially hard on poor urban households.

figured prominently as extenders of growth duration. But they also showed that income inequality shortened the duration of growth even after taking on board other factors. Concluded Berg and Ostry [2011]: "Inequality still matters, moreover, even when other determinants of growth duration—external shocks, initial income, institutional quality, openness to trade, and macroeconomic stability—are taken into account." In other words, growth in less income-equal economies tends to be spasmodic. If inequality stops growth, then the downward phase of the Kuznets curve may not even materialize. The excuse for government not to act becomes flimsy. Most of the subsequent studies involving inequality, however, still involved the less developed world where markets may exhibit myriads of distortions.

1.2. Inequality in developed economies

In the first decade of the 21st century, mounting evidence indicated that income distribution in well-functioning markets of the developed countries was becoming dangerously skewed in favor of the very rich, Piketty and Saez [2003] and Atkinson et al. [2011] revealed the sharp rise of inequality in the USA in the last two decades to levels reached in the 1920s led by stagnating real wages. Some of these may be due to financial excesses during the period. Financial institutions and regulators responding to pressures may have encouraged the process whereby high net worth individuals save while low net worth individuals borrow to indulge in unsustainable levels of spending [Rajan 2010]. The question naturally arose: was the Great Recession itself the result of extremes of financial excess and income inequality? Kumhof et al. [2015] for example linked income distribution and financial excess to the two worst economic crises in history—the Great Depression and the Great Recession.

Outside economics, Wilkinson and Pickett [2009] created a spirited methodological debate with their sweeping empirical claim that income inequality contributed to the slew of rich country social ills (infant mortality, obesity, teenage pregnancy, crime, and drug abuse, among others) in developed countries.

But as long as the good times rolled with the widely acclaimed Great Moderation, this was a matter of curiosity, not of policy. There was no dearth of plausible arguments for inequality tolerance. Welch [1999] claims that the increasing wage inequality in the US had a second edge; it also allowed greater penetration by women and men of color into the top quartiles of white men wage distribution, thus decreasing intergroup wage inequality. His rendition of the dominant attitude on rising inequality deserves repeating: "It is not much of an exaggeration to say that all of economics results from inequality. Without inequality of priorities and capabilities, there would be no trade, no specialization, and no surpluses produced by cooperation. Incidentally, there would be no economics..."

1.3. The Great Recession

Then happened the Great Recession which spread destitution among the lower income classes in the USA and other OECD countries. Median incomes of the middle and lower classes declined in the US and triggered a *zeitgeist* [Rodrik 2014] among the lower classes. The post-2008 soil had become ripe for a cloudburst on income inequality. Piketty's *Capital* hit the stands in 2014 when the USA was in the midst of a perplexing legislative gridlock over taxing the ultra-rich. His claim of ever-increasing income inequality welling out from the very engine room of progress seems to signal capitalism's inherent self-destructive tendency reminiscent of Marx's "progressive impoverishment of the masses". Its overarching message seems Marxist: the market cannot heal itself. The Piketty thesis will no doubt be subjected to further scrutiny but the criticisms thus far on the empirics have fallen flat (e.g., Giles [2014]; Krugman [2014]; R.A. [2014]). The wave of inequality awareness and aversion is welling up as a consequence. In the subsequent 2014 conference in London,[3] the IMF's Christine Lagarde and Bank of England's Mark Carney admonished businessmen to return ethics to capitalism and help push back rather than widen inequality. They did not argue how in a convincing fashion. The 2014 World Economic Forum[4] made more inclusive and sustainable growth its theme. Inequality awareness and aversion had now become front and center of policy discourse.

Section 2 of this paper explores the role of the state in properly functioning markets, the arena in which Piketty 2014 largely locates his critique and partly redressed in Piketty 2018. It argues that in properly functioning economies—those that constitute the advanced frontier economies that have led the way to whittling away at market imperfections—the state's principal role to play is to stand aside, and more so when the Kuznets hypothesis is part of the landscape.

2. The role of the state in the neo-classical economy

2.1. Fundamental theorems of welfare and the state

This section reviews the role of the state in neoclassical economics as reflected in the Fundamental Theorems of Welfare, which constitute the sanctum sanctorum of the competitive market paradigm. The First Fundamental Theorem of Welfare (FFTW), which assumes from the outset the non-existence of market imperfections and a host of convexity assumptions, shows that the market will—by itself and unaided—attain an allocation that cannot be improved upon by reallocation; in other words, Pareto efficient. The state can only do harm where no market failures exist.

[3] Conference on Inclusive Capitalism, May 27, 2014, at the Mansion House in London.

[4] World Economic Forum Annual Meeting, January 22-25, 2014, at Davos-Klosters in Switzerland.

The state is, after all, largely viewed, going back to Adam Smith, as an organ to solve market failures. Of course, it is glibly silent on the central question of who protects the property of private owners. David Hume [1739-40], for one, considered property rights as a collective action problem that requires explicit address as much as digging irrigation ditches among farmers. But if we eschew market imperfections from the start, the state has no role.

2.2. The second fundamental theorem of welfare and equity

Concern for the equity deficit in the *laissez faire* market solution motivated the Second Fundamental Theorem of Welfare (SFTW): for every feasible Pareto efficient allocation, there exists an appropriate redistribution of initial assets subsequent to which the perfectly competitive market will attain as equilibrium the very same feasible allocation. Note carefully that the statement is ingeniously an existence claim; it does not commit to a particular entity to discover and/or implement it. So the state or the government is still gingerly not in play. It could be God for all we know. But it is not lost on anyone that the state looms large as the implementor-in-waiting in the horizon. In actual asset reallocations such as in land reform programs, who but the state is the organ of execution?

As is well known, equity was championed by the then vigorous socialist challenge to capitalism (see, e.g., Lange and Taylor [1938]; Lerner [1938]) in the 1930s before Arrow and Debreu [1954] brought forth the welfare theorems. The socialist prescription to respond to the socialist calculation debate initiated by the Austrian School's anti-socialism broadside [Von Mises 1920] was "market socialism" which in time and in practice became conflated with "central planning". The *laissez faire* market equilibrium allocation may indeed and in fact be very unequal and may violate the relevant polity's sense of fairness. The main message of the SFTW is that equity and efficiency can be pursued separately. Suppose the market equilibrium allocation E violates the relevant polity's sense of fairness while another Pareto efficient allocation E^* satisfies it: should the rejection of E in favor of E^* extend to the rejection of the market mechanism? The SFTW says, "No."

If the state effects the requisite redistribution of the underlying assets, the market will attain as equilibrium the desired, more equitable allocation, E^*. The role of the state in the pursuit of equity need not go beyond initial asset redistribution; in particular, it does not have to replicate the myriad of exchanges that used to be mediated by the market using, say, the estimated shadow prices along the lines of the once celebrated but ill-fated Lerner-Lange-Taylor Theorem [Lange and Taylor 1938]. There is no need in other words for a socialized ownership of capital. This is reminiscent of Ronald Coase [1960] who argued that the assignment of property rights will, along with low transactions cost, allow private bargaining to attain Pareto efficiency in case of an externality. As in SFTW, the state enables the market to do its job by providing proper institutional mechanisms.

2.3. Meta-market failures

The SFTW suggests that another Pareto efficient allocation may be preferred by the polity to the market allocation. The competitive market model respects the ethic of Pareto efficiency as well as individual rationality. In theory, an allocation where one agent has 99.9 percent of resources while 999,000 agents have 0.1 percent of resources can be Pareto efficient. But this may violate the fairness norm of the underlying social contract upon which social stability rests. Actual societies may have norms such as fairness that transcend Pareto. This difference in norms is best reflected in different voting rights within the same democratic jurisdiction in developed economies: one-man-one-vote is the norm for political decision-making while one-share-one-vote holds in corporate decision making. The latter is an efficiency norm while the former is an inclusion norm. Economic efficiency has no mandate to be inclusive.

Take two very different allocation mechanisms: the Nash bargaining solution and the Rawlsian mechanism. The former is a two-person analogue to the market allocation; it satisfies feasibility, Pareto efficiency, and individual rationality, which the market also satisfies. The Nash bargaining solution echoes the inequality imbedded in the maximin profile reflecting the bargaining power of the bargainers and thus can be very unequal. By contrast, Rawls [1971] in *A theory of justice* argued that allocations which satisfy the "minimum difference" norm will be preferred by a polity of risk-averse members voting under the "veil of ignorance", that is, shorn of their prejudices, capabilities, and accidents of history (thus, maximin positions). The Nash Bargaining allocation will normally exhibit an equity deficit unacceptable to a polity that subscribes more or less to the Rawlsian ethic. For the two allocations to coincide requires a special property of the utility possibility frontier, sub-symmetry, which may require a state action to realize (see Fabella [1991]). If so, the Nash bargaining solution, though Pareto efficient, still constitutes a "failure" but from an equity deficit, rather than from an inability to attain the usual Pareto efficient standard. In such cases, we have what we call a *meta-market failure*: the Pareto efficient market allocation is deemed welfare-inferior to another feasible allocation on the basis of some ethical norm held sacred by the polity. This norm could but need not always be equity. But the meta-market failure stemming from the equity deficit anchored the classical objection of Marxists and socialists to the market mechanism.

2.4. Pursuing equity: the SFTW route

Let the decentralized economy R consist of two agents U and V with utility $u = \log x$ and $v = \log y$ where x and y are shares of U and V, respectively, in total resource B. The decentralized problem is that U and V must agree on a device to allocate B between themselves exhaustively. The feasible set is

$$A = \{(x, y): x + y = B\}. \tag{1}$$

Suppose the prevailing social contract prefers the allocation that maximizes the utilitarian social welfare function,

$$W = u + v = \log x + \log y. \tag{2}$$

The allocation

$$(x^*, y^*) = (B/2, B/2) \tag{3}$$

uniquely maximizes W. Suppose however that the decentralized economy R solves the problem using mechanism M which satisfies the Pareto norm but also satisfies individual rationality (respects reservation utilities or maximin positions) in pursuit of efficiency. Let $(x^\wedge, y^\wedge)$ be the allocation prescribed by M. Then it is Pareto efficient but may be deemed inferior to (x^*, y^*) from the vantage of W. Thus, R may be a meta-market failure by W.

For illustration, let the decentralized allocation mechanism M be Nash bargaining solution which chooses

$$(x^\wedge, y^\wedge) = \text{argmax}_x\, [u(x) - u^o][v(B - x) - v^o]. \tag{4}$$

Let the maximin profile be (u^o, v^o) with $u^o < v^o$. $(x^\wedge, y^\wedge)$ satisfies the first order condition

$$(B - x)x^{-1} = (\log x - u^o)(\log (B - x) - v^o)^{-1}. \tag{5}$$

Now $(B/2)$ solves this equation only if $u^o = v^o$. But $u^o < v^o$, thus, $(B/2, B/2)$ does not solve this equation and $x^\wedge < y^\wedge$. Clearly, $W(x^\wedge, y^\wedge) < W(x^*, y^*)$. Thus R is a meta-market failure. Let $D = W(x^*, y^*) - W(x^\wedge, y^\wedge) > 0$ be the potential gain from moving to (x^*, y^*).

The SFTW says that one can retain M and still attain W^* in two steps: (1) redistribute original maximin positions such that each agent gets $[(u^o + v^o)/2]$ which in the Nash bargaining game is tantamount to moving the maximin point to the 45-degree line; and (2) let M do its job. The first one echoes the Piketty 2018 proposal to raise the taxes on wealth and income to finance the 125,000-euro grant to every citizen at age 25 in order to improve the bargaining power of all citizens in the market. Since the resulting utility possibility frontier is symmetric, the resulting Nash bargained allocation is now $(B/2, B/2)$. The meta-market failure is solved by M post-initial asset redistribution. This is an analog here of the SFTW.

2.5. Transactions cost and private solutions to meta-market failures

We know that V is worse off while U is better off in (x^*, y^*) than at $(x^\wedge, y^\wedge)$. V will object to the contract involving initial asset redistribution. Consider the following side-payment contract: V agrees to the redistribution of assets in favor of U and U agrees to give up ε, $0 < \varepsilon < D$, of his/her u^* (assuming that utility is transferrable) to V such that $v^* + \varepsilon \geq v^\wedge$, and $u^* - \varepsilon \geq u^\wedge$. Thus, both are strictly better off with

the contract than at (x^, y^). If the contract is credible, and the transactions cost *TC* of decentralized bargaining is low enough, say, $D - TC > 0$, *V* will accept the contract and both parties will be better off. This is the Coasean Bargain in action. In the low-enough *TC* economy and a credible enough enforcement of contracts, the Coasean mechanism will solve the meta-market failure by private contracting. Thus, in the classical environment of small or zero *TC*, private bargaining will solve market failures but even the meta-market failure. This can explain the 'no market imperfections' assumption in the neoclassical paradigm provided there is no free riding or opportunism.

But ex-post opportunism can make for a very high *TC*, say, $TC > D$ thus eating up all the Coasean gains and the meta-market failure will remain. To exit the gridlock, one now needs a third party, say the state, with a lower *TC* to broker the deal. State intervention is itself subject to *TC*, sometimes massive. State ownership and operation of corporations can run afoul of numerous agency problems that thwart the promised maximum of consumer's surplus (see, e.g., Cook and Fabella [2002]). So many "ifs" stand in the way. But if nonetheless the state is upright and credible, it can guarantee the compensation contract among the players in the asset redistribution program. If the state intervention incurs a $TC = D/2$, the net gain of employing the state intervention is still positive. The *TC* of direct asset redistribution should never be underestimated: the program for asset redistribution may shake society to its core; social unrest can accompany such programs. The hurdle here is higher than the simple assignment of property rights in the Coase theorem, since the assets in the SFTW are already owned; whereas the common resource in the Coase theorem is, to start with, owned by nobody. Are there other ways to avoid the SFTW prescription in the pursuit of equity? The Kuznets hypothesis offers precisely such avoidance.

3. The role of the state

How big a worry the equity-based meta-market failure is depends upon what type of economy exists. In the Kuznets economy, a meta-market failure stemming from an equity deficit in the properly functioning market allocation is a benign and a temporary worry and can be accorded benign neglect. As long as over time, there is growth in income it will eventually reduce inequality. Thus, in the Kuznets economy, efforts to grow the economy which are definitely more politically feasible can conveniently substitute for SFTW and asset redistribution in the service of equity. The Kuznets hypothesis renders the SFTW policy-wise irrelevant; SFTW still remains a deep existence theorem but it is no longer a compelling policy imperative. From the Kuznetsian vantage point, the rapid rise in inequality in PRC need not worry the Chinese authorities; it will eventually abate when most of the low income households have graduated from absolute poverty into the middle class or when China finally becomes labor-scarce.

Not so in the Piketty economy: the growth in inequality respects no development threshold. Piketty [2014] rightly blames the Kuznets hypothesis for the policy neglect of income inequality; but he should also blame the Kuznets hypothesis for making the SFTW irrelevant policy-wise. If, as Piketty suggests, however, extremes of inequality threaten Armageddon on capitalism and its political mooring, democracy, then state pushback is not an option; it is an obligation. The role of the state is not only to make markets attain perfection but also to save them from runaway inequality when they do.

Piketty 2014 also echoes of Keynes' [1936] contention that the market in certain extreme conditions (due, say, to the liquidity trap or some other negative feedback process) is unable, contrary to the classical belief and to business cycle thinking started by Schumpeter [1939], to heal itself from severe systemic collapses; in such cases fiscal activism—even unorthodox ones—must come to its rescue. Fiscal activism violating prevailing common sense is what Piketty 2018 cogently argued with participatory socialism. Keynes [1924] already wrote that doing nothing is facile and unworthy: "In the long run we are all dead. Economists set themselves too easy, too useless a task if in tempestuous seasons they can only tell us that when the storm is past the ocean is flat again."

After the inequality Armageddon, the ocean may never be flat again. Or the moorings of capitalism and democracy could all be so ruptured that progress is stymied. While resemblance to Marx is apparent and even deliberate on the part of Piketty 2014, his resemblance to Keynes is also, and probably more, compelling.

4. Summary

The neoclassical market economy represented by the two fundamental theorems of welfare has hardly a place for the state. In the FFTW, the state is irrelevant because there are no market imperfections to start with. The state's role is to make perfect imperfect markets. The SFTW does recognize that the allocation attained by a properly functioning market though Pareto efficient may not meet the ethical standards of the polity, especially that of equity. In other words, the norms of society such as the norm of fairness may not be served by the competitive market which is sensitive to initial asset allocation and thus equity-blind.

When the competitive market allocation exhibits an equity deficit, we call the outcome a meta-market failure. In case of an equity deficit meta-market failure, and a more socially preferred Pareto efficient allocation that is desired over the one attained by the market, the SFTW says that there exists an initial asset redistribution that, if effected, will support the attainment of the preferred Pareto efficient allocation through the market mechanism. If the state is the organ of redistribution (over which the SFTW is discretely silent), the state does no more than redistribute the initial assets leaving subsequent reallocation to the market.

We gave an example where the social welfare function is Rawlsian while allocation is by the Nash bargaining mechanism, an analog of the market that respects both Pareto efficiency and individual rationality. The market allocation (a la Nash bargaining) will be deemed inferior by society from the vantage point of the Rawlsian social welfare function and is thus a meta-market failure. The state can intervene to correct the meta-market failure by reallocating initial assets (the maximin positions): it can craft and enforce a compensation contract whereby in the first instance the richer party gives up some of his maximin position to the poorer party in return for the poorer party compensating the richer party after the mechanism has done its job of attaining the superior social welfare level. This echoes the Piketty 2018 proposal to raise the tax on income and wealth to finance the equal inheritance scheme of EUR 125,000 euros granted every citizen at age 25. We showed that both parties benefit in the attainment of greater equity provided the transactions cost is reasonably low. The transactions cost of this program may, however, be very high (for example, it may trigger social unrest) and the state should be unwilling to push it (see e.g., Cook and Fabella [2002] for the frustration of Nirvana in the state ownership of enterprises). When, on the other hand, the state is willing to push asset redistribution, the program may fall short of realizing the Coasean dividends due to its state frailties in the form of waste and venality. The 1988 Comprehensive Land Reform Program in the Philippines which sought to redistribute land assets to landless farmers was attended with so much waste, property rights chaos and capital flight from the rural areas that the Coasean dividend headed south [Fabella 2014].

The Kuznets hypothesis offers a convenient detour. It says that over time as per capita income rises, inequality will first rise, reach a peak and then fall of itself. The meta-market failure associated with the market allocation is a transitory inconvenience in the growing Kuznets economy. In the long run, it will abate. Even when a society hankers for a more equitable distribution, it can—because costly and possibly disruptive—sidestep the SFTW; it can avoid the politically costly initial asset redistribution. Instead it can rely on trickle-down equity, that is, it can embark on policies that enable rapid income growth and wait for greater equity as a by-product. At the end of the rainbow the best of both worlds will result: high income with equity. Thus, the role of the state suggested in the SFTW is avoidable in the Kuznets economy.

Not so in the Piketty economy. Market growth induces greater and greater inequality which in turn threatens Armageddon upon capitalism and democracy. In the Piketty economy, the state is at some point forced by success to confront the SFTW; addressing the inequality-rooted meta-market failure directly is not an option but an obligation. In the Piketty economy SFTW is restored to policy relevance. The state is there not only to make the market work better but to save it when it succeeds to inequality excesses!

References

Alesina, A. and D. Rodrik [1994] "Distributive politics and economic growth", *Quarterly Journal of Economics* 109(2):465–490.

Arrow, K.J. and G. Debreu [1954] "Existence of equilibrium for a competitive economy", *Econometrica* 22:265-290.

Atkinson, A., T. Piketty, and E. Saez [2011] "Top incomes in the long-run of history", *Journal of Economic Literature* 49(1):3-71.

Banerjee, A.V. and E. Duflo [2003] "Inequality and growth: what can the data say?", *Journal of Economic Growth* 8(3):267–299.

Barro, R.J. [2000] "Inequality and growth in a panel of countries", *Journal of Economic Growth* 5(1):5–32.

Berg, A. and J.D. Ostry [2011] "Inequality and unsustainable growth: two sides of the same coin?", *IMF Staff Discussion Note* SDN/11/08. https://www.imf.org/external/pubs/ft/sdn/2011/sdn1108.pdf. Accessed July 28, 2017.

Berg, A., J.D. Ostry, and J. Zettelmeyer [2008] "What makes growth sustained?" *IMF Working Paper* 08/59. International Monetary Fund, Washington, DC. Available at https://www.imf.org/external/pubs/ft/wp/2008/wp0859.pdf. Accessed November 15, 2017.

Cassidy, J. [2014] "Piketty's inequality story in six charts", *The New Yorker*. Available at http://www.newyorker.com/news/john-cassidy/pikettys-inequality-story-in-six-charts. Accessed November 2016.

Chaudhuri, S. and M. Ravallion [2006] "Partially awakened giants: uneven growth in China and India", In L.A. Winters and S. Yusuf (eds.). *Dancing with giants: China, India and the global economy*. Washington, DC: The World Bank.

Coase, R. [1960] "The problems of social cost", *Journal of Law and Economics* 3:1-44.

Cook, P. and R. Fabella [2002] "The welfare and political economy dimensions of private vs state enterprise", *The Manchester School*. Available at https://doi.org/10.1111/1467-9957.00294. Accessed November 20, 2017.

Dollar, D. and A. Kraay [2002] "Growth is good for the poor", *Journal of Economic Growth* 7(3):195–225.

Easterly, W. [2007] "Inequality does cause underdevelopment: insights from a new instrument", *Journal of Development Economics* 84(2):755–776.

Fabella, R. [1991] "Rawlsian Nash Solutions", *Theory and Decision* 30:113-126.

Fabella, R. [2014] "Comprehensive agrarian reform program (CARP): time to let go", *Philippine Review of Economics* 51(1):1-18.

Forbes, K.J. [2000] "A reassessment of the relationship between inequality and growth", *American Economic Review* 90(4):869–887.

Giles, C. [2014] "Piketty findings undercut by errors", *Financial Times*, May 23, 2014. Available at http://webcache.googleusercontent.com/search?q=cache:http://www.ft.com/cms/s/2/e1f343ca-e281-11e3-89fd-00144feabdc0.html#axzz3ApVAKWva. Accessed August 2, 2016.

"Growth is good" [May 25, 2000] *The Economist*, http://www.economist.com/node/334693. Accessed May 2017.

Gupta, S., B. Clements, R. Gillingham, C. Schiller, M. Verhoeven, R. Alonso-Terme, and A. Mourmouras [1999] "Should equity be a goal of economic policy?", *Economic Issues* 16. Washington: International Monetary Fund.

Hume, D. [1739-40] *A treatise of human nature*. Whiteheart Cheapside: John Noon.

Keynes, J.M. [1924] *A tract on monetary reform*. London: MacMillan and Company, Ltd.

Keynes, J.M. [1936] "The general theory of money, employment and prices", http://cas2.umkc.edu/economics/people/facultypages/ ennet/courses/econ645/winter2011/generaltheory.pdf. Accessed June 20, 2017.

Krugman, P. [May 24, 2014] "Is Piketty all wrong?", *The New York Times*, http://krugman.blogs.nytimes.com/2014/05/. Accessed August 14, 2014.

Kumhof, M., R. Rancière, and P. Winant [2015] "Inequality, leverage and crises", *American Economic Review* 105(3):1217-1245.

Kuznets, S. [1955] "Economic growth and income inequality", *American Economic Review* 45(1):1-28.

Lange, O. and F. Taylor [1938] On the economic theory of socialism. Minneapolis: University of Minnesota Press.

Lerner, A. [1938] "Theory and practice of socialist economics", *Review of Economic Studies* 6(1):51-61.

Piketty, T. and E. Saez [2003] "Income inequality in the United States, 1913-1998", *Quarterly Journal of Economics* 118(1):1–39.

Piketty, T. [2014] *Capital in the twenty first century*. Cambridge, Mass.: Cambridge University Press.

Piketty, T. [2018] *Capital and ideology*. Boston: Harvard University Press.

R.A. [May 24, 2018] "Inequality: a Piketty problem?", *The Economist*, http://www.economist.com/blogs/freeexchange/2014/05/inequality-0. Accessed July 15, 2016.

Rajan, R. [2010] *Fault lines: how hidden fractures still threaten the world economy*. Princeton: Princeton University Press.

Ravallion, M. [2001] "Growth, inequality and poverty: looking beyond the averages", *World Development* 29(11):1803-1815.

Rawls, J. [1971] *A theory of justice* (Revised Edition). Cambridge, Massachussetts: The Belknap Press of Harvard University Press.

Rodrik, D. [March 13, 2014] "Piketty and the zeitgeist", *Project Syndicate*, https://www.project-syndicate.org/commentary/dani-rodrik-explains-why-capital-in-thetwenty-first-century-has-become-so-successful-in-the-us. Accessed August 5, 2016.

Rogoff, K. [May 8, 2014] "Where is the inequality problem?", *Project Syndicate*, https://www.project-syndicate.org/commentary/kenneth-rogoff-says-that-thomaspiketty-is-right-about-rich-countries--but-wrong-about-the-world. Accessed August 5, 2016.

Stiglitz, J.E. [1996] "The role of government in economic development", In M. Bruno and B. Pleskovic (eds). *Annual World Bank conference on development economics*. Washington, DC: World Bank.

Welch, F. [1999] "In defense of inequality", *American Economic Review* 89:1–17.

Wilkinson, R. and K. Pickett [2009] *The spirit level: why more equal societies almost always do better*. London: Allen Lane.

The Philippine Economic Society

Founded 1961

BOARD OF TRUSTEES 2023

PRESIDENT
Philip Arnold P. Tuaño
ATENEO DE MANILA UNIVERSITY

VICE PRESIDENT
Agham C. Cuevas
UNIVERSITY OF THE PHILIPPINES-LOS BAÑOS

SECRETARY
Alice Joan G. Ferrer
UNIVERSITY OF THE PHILIPPINES-VISAYAS

TREASURER
Marites M. Tiongco
DE LA SALLE UNIVERSITY

BOARD MEMBERS
Faith Christian Q. Cacnio
BANGKO SENTRAL NG PILIPINAS

Jovi C. Dacanay
UNIVERSITY OF ASIA AND THE PACIFIC

Sarah Lynne S. Daway-Ducanes
NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY

Ricardo L. Dizon
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

Adoracion M. Navarro
PHILIPPINE INSTITUTE FOR DEVELOPMENT STUDIES

Emilio S. Neri, Jr.
BANK OF THE PHILIPPINE ISLANDS

Ser Percival K. Peña-Reyes
ATENEO DE MANILA UNIVERSITY

EX-OFFICIO BOARD MEMBERS
Charlotte Justine Diokno-Sicat
ASIAN DEVELOPMENT BANK
IMMEDIATE PAST PRESIDENT

Emmanuel F. Esguerra
UNIVERSITY OF THE PHILIPPINES DILIMAN
EDITOR-IN-CHIEF, *THE PHILIPPINE REVIEW OF ECONOMICS*

The Philippine Economic Society (PES) was established in August 1962 as a nonstock, nonprofit professional organization of economists.

Over the years, the PES has served as one of the strongest networks of economists in the academe, government, and business sector.

Recognized in the international community of professional economic associations and a founding member of the Federation of ASEAN Economic Associations (FAEA), the PES continuously provides a venue for open and free discussions of a wide range of policy issues through its conferences and symposia.

Through its journal, the *Philippine Review of Economics* (PRE), which is jointly published with the UP School of Economics, the Society performs a major role in improving the standard of economic research in the country and in disseminating new research findings.

At present the society enjoys the membership of some 800 economists and professionals from the academe, government, and private sector.

- Lifetime Membership – Any regular member who pays the lifetime membership dues shall be granted lifetime membership and shall have the rights, privileges, and responsibilities of a regular member, except for the payment of the annual dues.
- Regular Membership – Limited to individuals 21 years of age or older who have obtained at least a bachelor's degree in economics, or who, in the opinion of the Board of Directors, have shown sufficient familiarity and understanding of the science of economics to warrant admission to the Society. Candidates who have been accepted shall become members of the Society only upon payment of annual dues for the current year.
- Junior Membership – This is reserved for full-time college or graduate students majoring in economics. Affiliation for junior membership is coursed through the Junior Philippine Economic Society (JPES).

For more information, visit: www.phileconsociety.org.