Is inequality in Malaysia really going down? A puzzle explored

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Abstract

Official statistics indicate declining household income inequality in Malaysia, in contrast to the trend of rising inequality in major Asian economies. However, Malaysia's policy documents pay little attention to this track record, while public discourses generally assert that inequality has risen, or remained persistently high. Due to the inaccessibility of official survey datasets, we assemble data from alternative sources which offer notable, albeit qualified, insights. Wage inequality registers a modest rise in the 2000s, marked by rapid growth in the uppermost segments. Car sales and property sales also show rising concentration at the top. Distribution in the largest unit trust funds reflect increasing inequality, driven more by accumulation in the upper-middle segments. Our findings are consistent with general perceptions of rising inequality, and underscore the multidimensionality of inequality and the importance of structural inequalities in labour and asset markets.

Key words: Inequality, Malaysia, earnings, income, wealth

Introduction

Inequality in Malaysia over recent years poses a trying, and somewhat peculiar, puzzle. Perception and discourse seem to inhabit a different world from the available empirical evidence. Income inequality is widely said to be increasing, or persisting at high levels, but official household income data indicate that disparity decreased in the first decade of the 2000s, and even reached its lowest ever recorded level in 2014 after a precipitous fall over 2012-2014, characterized by exceptionally high income growth in the lower bracket and slow growth in the higher brackets. This phenomenon is recorded across the nation and within both urban and rural areas (Figure 1). If true, it marks Malaysia – together with Thailand – as anomalies from the majority of large, dynamic Asian economies, notably China, India, Indonesia and South Korea, which have seen inequality widen between the 1990s and the 2000s (ADB 2012). However, Malaysia's outstanding record is barely recognized.

Even the Malaysian government seems uncertain how to receive it. Policy documents have not highlighted the drop in inequality as a success nor attempted to draw insight from this track record. This omission may simply stem from habit: reduction in aggregate inequality has for decades not been pursued and monitored as a primary national policy objective. Policy discourses have not seriously analysed the determinants of systemic inequality. However, it is also possible that the findings are difficult to explain, due to the lack of marked developments in labour markets or progressive redistribution programs commensurate with rapid income growth at the bottom and slower growth at the top. Indeed, from 2010, when the New Economic Model stipulated the bottom 40 percent of the population would be a policy priority, policies have adopted an implicit premise that improvement in household living standards for this segment have been lagging (NEAC 2010; Malaysia 2010). The official statistics indicate otherwise: average household

income has been growing considerably faster for the bottom 40 percent than for the top 20 percent (Figure 2). Thus, the empirical evaluation somewhat contradicts the policy prescription: lower income households have enjoyed robust gains but at the same time are deemed acutely and increasingly in need of assistance. This disconnection raises the possibilities that official data may not be reliably capturing socioeconomic conditions and that the government also discerns rising inequality to be an important and resonant issue – regardless of the data.

The official statistics also cover a narrow range of information on inequality, and therefore present an incomplete though not necessarily incorrect picture. Usage of the Household Income Survey (HIS), a rich data source, has been limited to computations of gross household income inequality broadly captured in the Gini coefficient and the distribution across wide income brackets (bottom 40 percent, middle 40 percent, top 20 percent), without efforts to differentiate earned income from non-earned income, estimate wealth inequality, and calculate concentration in the uppermost regions. Hence, we are not informed of other important aspects on the subject, such as earnings inequality in the labour market and concentration of earnings and wealth in the top one percent – a salient phenomenon in many countries in recent decades (UNCTAD 2012). The notion that economic growth has enriched elites and omitted the masses resonates in Malaysia as well, but mostly from popular and anecdotal standpoints. Arguably, inequality in earnings – wages and self-employment, the predominant sources of income – feature prominently in the public mindset, while inequality in wealth, particularly property, is conspicuous and also influential in shaping perceptions. We remain largely in the dark on the empirical evidence of these spheres of inequality.

This paper aims to shed some light on this puzzle. We unpack the literature to draw out plausible reasons for the disconnection between data and discourse and to identify information

gaps. We then empirically investigate patterns of inequality from available data sources. We proceed with a two-legged inquiry:

1. Is the recent documentation of declining income inequality being overlooked or partially sighted?

2. Based on available data besides the Household Income Survey, has inequality has decreased in the 2000s, as indicated by the official account? Are there variations in inequality trends, based on unit of analysis (household vs. personal) and dimension of inequality (income, earnings, wealth)?

In the first portion, we consider the lack of reception and apparent perplexity toward the official documentation of falling inequality, and discuss plausible reasons why public discourses maintain that inequality has risen or remained high. In lieu of the inaccessible raw income survey data, we examine disclosed survey reports for consistency and coherence in the official account of inequality[1]. The HIS constitutes a consistent and extensive nationally representative survey; it remains the authoritative source for tracking income distribution trends. Nonetheless, limitations in the utilization of this data series underscore the importance of examining inequality more broadly and with reference to other sources. In particular, the official statistics exclusively report gross household income inequality, omitting specific focus on earnings and wealth and on concentration at the top. Changing composition of household income sources also suggest that property income and transfers have driven the 2012-2014 plunge in inequality, possibly deriving from "imputed rent" disproportionately inflating lower income households. These observations underscore the importance of empirically examining earnings and wealth disparities.

In the second part, we empirically investigate inequality, with a focus on earnings and wealth, and with a specific interest in the possibility of increasing concentrated in the topmost strata.

Drawing on Employees Provident Fund savings accounts, public sector employment and car sales, we find evidence of mildly rising earnings inequality – with increasing skewedness toward the uppermost strata. The broad scope of these data, and their composition as records of particular populations as compared to surveyed samples, lend a considerable degree of confidence to these findings. On wealth distribution, we also find evidence of rising disparity between the high-end segments and the bottom half in general, although the data we report do not paint a straightforward picture. Property sales reflect growing concentration at the topmost layers, but unit trust holdings of a selection of the largest funds in Malaysia, which we refer to as an indicator of financial wealth inequality, show the share growing more in the region below the top. These findings warrant a considerable degree of circumspection, owing to the lesser representativeness of financial wealth data, and the inability to account for diversified holdings.

The scenarios of earnings and wealth distribution generally point to rising inequality, in contrast to the officially documented trend of falling inequality. Differences in the form and content of data are plausible causes of the differential. Our data sources enjoy one advantage: as repositories of recorded data and registries of specific populations, we obviate the usual survey problems of respondents' under-reporting of income and inadequate samples. This study adopts the person as the unit of analysis, which corresponds closely with perceptions of inequality deriving from wage inequality, and our data sources account for a substantial proportion of the working population. However, as major limitations, this paper offers a patchwork of estimates and insights and omits self-employment income. We are unable to account for multiple income sources – e.g. wages and rental income received by one person – and multiple ownership – e.g. property and financial assets held by one person. Our data sources cannot be combined into a composite, panoramic view of inequality, unlike the household income survey which rightfully claims national

representativeness and provides summation of income sources. We are mindful of these upsides and drawbacks as we proceed.

Declining inequality in Malaysia: Overlooked or partially sighted?

Official accounts and empirical considerations

Income and wealth inequality in Malaysia are sparsely studied, especially since the 1997-98 Asian Financial Crisis. In contrast, the national Gini coefficient plotted out rising inequality in the pre-Asian crisis 1990s (1989-1997), and conventional wisdom and academic analyses broadly concurred, attributing the trend to upwardly skewed distribution of the gains from the economic boom. Subsequently, Malaysia's Gini coefficient followed a downtrend after 1997. Inequality fell sharply in 1999, likely due to the financial crisis, then slightly inched upward. Over the period 2002-2004 the Gini was sustained at around 0.460, and in 2007-2009 it touched 0.440, then dropped again to 0.430 in 2012 and 0.401 in 2014, the lowest level ever measured (Figure 1). In rural areas, the downtrend spans a longer period, falling from 0.424 in 1997 to 0.355 in 2014. In urban areas, household income inequality dwindled from above 0.444 in 2004 to 0.391 in 2014. In the context of this study, the drop in urban income inequality is particularly significant, since the data accessible and utilized in this study revolve more around urban economies and labour markets.

Figure 1. Gini coefficient of gross household income, 1989 - 2014
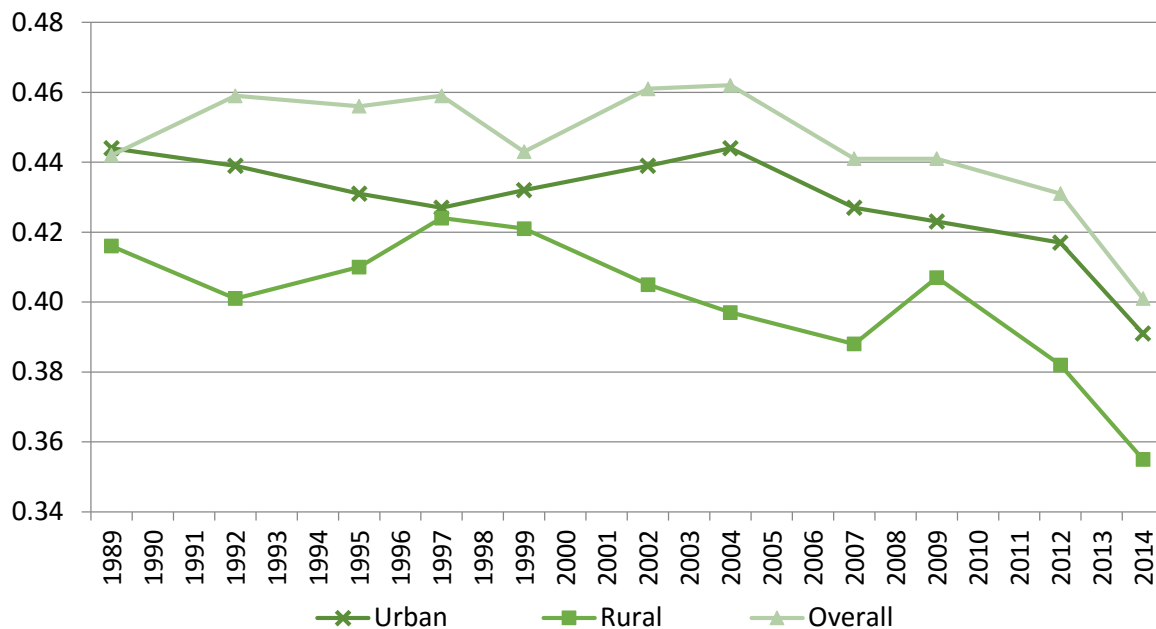
However, this remarkable phenomenon has been overlooked, even from the official angle that one would expect to be invested in such a propitious outcome. The embedded centrality of ethnic and regional inequality in Malaysia's development framework may have ingrained habits of superficially handling inequality outside of these contexts. Malaysia's policy discourses have consistently and intensively focused on bridging inter-ethnic divides – data of such categories have been assiduously targeted, monitored and documented. Historically, reducing overall income inequality has not been a top priority; only recently have development plans placed importance on the national Gini coefficient. The *Tenth Malaysia Plan (2011-2015)* marked the first time development policy targeted lowering the overall Gini; the *Eleventh Malaysia Plan* (2016-2020) followed suit.

Perhaps Malaysia is simply not aware that its experience stands out. The disclosure of the abrupt and steep drop in inequality from 2012 to 2014 – which is outstanding by international comparison – was greeted with mere passing remarks. The *Eleventh Malaysia Plan* noted that the

Gini coefficient touching 0.401 in 2014 had exceeded the target of 0.420 by 2015. In cross-country perspective, however, Malaysia's record is exceptional, even when compared to various Latin American countries that have confounded global trends by reducing inequality in the 2000s, due to varying combinations of labour market and policy factors (UNCTAD 2012). Malaysia's Gini coefficient shrank by a staggering 1.32 percent per year between 2004 and 2014, above the corresponding 0.96 percent recorded in thirteen Latin American countries in the 2000s (Lustig, Lopez-Calva and Ortiz-Suarez 2013). Malaysia's record also exceeds the decade-long inequality reduction in Argentina, Brazil and Mexico. Lustig, Lopez-Calva and Ortiz-Suarez (2013) scrutinize these three major economies, and attribute the income redistribution principally to declining skill premiums on wages and expansion of pro-poor transfer payments and social assistance.

Scrutiny of Malaysia's official inequality figures is warranted, in light of the magnitude of structural change that accompanied similar – indeed, lesser – inequality reductions in other countries. Lack of interest and curiosity in the characteristics and distributional implications of Malaysia's labour markets and wage bargaining structures, including minimum wage, as well as social transfers, has perhaps induced the failure of the country's remarkable falling inequality to gain attention and traction. Indeed, as discussed below, the viewpoint of rising or high inequality remains widely propagated. Of course, abundance of opinion that inequality has risen or stayed high does not suffice as grounds to doubt the contradicting official inequality statistics. This situation calls for critical *empirical* evaluation, as well as analysis of the coherence of inequality patterns with economic developments.

Questions also arise on the plausibility of official computations, especially across the most recent income survey interval (2012-2014). The nationwide drop in inequality is steep, but even

steeper within some population groups, notably Indian households. The Gini coefficient within the Indian population increased steadily from 0.390 in 1989 to 0.443 in 2012, only to plummet to 0.396 in 2014. That an increase over 23 years can be overturned in the space of two years emphatically stretches the limits of plausibility and should immediately raise red flags. Glaring aberrations are also noticeable in within-state inequality. The Gini coefficient of the northern state of Perlis fell precipitously from 0.455 in 2012 to 0.346 in 2014, or by 12 percent per year – a sheer impossibility. The Malaysian government has disseminated these statistics without any acknowledgment of the suspicious anomalies of such wild swings in inequality (Department of Statistics 2015). In addition, another substantive report utilizing the Household Income Survey has calculated different, and higher, measurement of inequality. World Bank's *Malaysia Economic Monitor* put the 2014 Gini coefficient of gross household income at 0.421, exceeding the official Gini coefficient of 0.401 for 2014. This figure is calculated from a smaller, preliminary, nationally representative HIS dataset, but it is doubtful that using a subset of the HIS can account for the sizable discrepancy. While we are only able to make deductions and inferences, there are grounds to remain circumspect toward the official inequality statistics that have been plainly conveyed without substantiation, in view of the manner some glaring red flags have seemingly been overlooked.

These contentions aside, we also need to take into consideration that the official statistics capture only a partial picture of inequality, and grapple with the usual challenges of income surveys, particularly the undercounting of wealth. These datasets are limited in their capacity to capture certain information, due to inability or reluctance of respondents to report property and investment incomes and wealth stocks. Malaysia's inequality statistics are also confined to gross household income, but other aspects of inequality may simultaneously move in different

directions. Wage distribution, in fact, does not necessarily map out parallel movements in household income distribution, which consists of various income sources and multiple income earners. Milanovic (2006), tracing hourly earnings (wages and self-employment income) inequality based on Household Income Survey data, found stable levels of inequality between 1989 and 1997, the same period in which household income inequality rose. Lee (2010) found that, between 1997 and 2004, personal monthly earnings inequality increased, while household income inequality remained relatively static. Thus, changes in personal earnings inequality do not necessarily correspond with changes in household income inequality, underscoring the relevance and importance of examining personal earnings inequality in addition to household income inequality.

Academic and public discourses

Academic work on this subject in Malaysia is instructive, providing a contrast between previous episodes of interest and coherence in explaining inequality, versus the current state of disengagement and ambiguity. Academic literature flourished in expounding the documented rise in inequality in the 1990s, attributing that trend to massive presence of low wage foreign workers, stagnant real wages alongside productivity gains, and upwardly skewed distribution of government largesse. Ragayah (2008) and Ishak (2000) attribute widening household income gaps to liberalization policies and technological advancement through foreign direct investment, resulting in both influxes of foreign labour and increased demand for skills and hence augmenting the wage gap between high-skilled and low-skilled workers. These propositions are consistent with the household income growth statistics over the 1989-1997 interval, during which the top 20 percent registered the highest growth, followed by middle 40 percent and the bottom 40 percent (Figure

2). Ariff (2008) highlights the effects of migrant workers on depressing wage growth, subsequently causing income distribution to be increasingly skewed in the 1990s.

Figure 2. Average Annual Growth of Mean Gross Household Income, by Income Bracket, 1989 - 2014
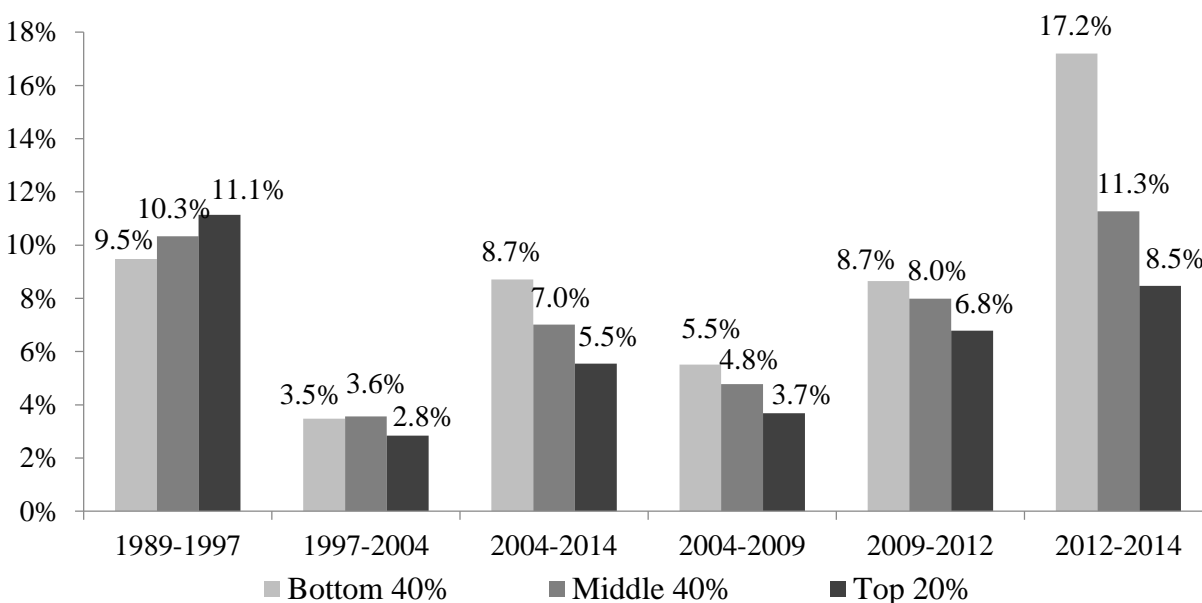
Source: Authors' calculations from Economic Planning Unit and Department of Statistics 2015[12].

The same data series that prompted enquiry into past rising inequality has received far less attention for tracing out an even more striking present time plot of falling inequality. The state of distribution are widely viewed in terms of continuity. The labour market structures linked to high inequality – dependency on low-wage, migrant labour – prevail still, and while some redistribution programs have been introduced lately, they are inadequate in scale to make a big dent on overall inequality. Recent years have also seen growing interest and documentation of income and wealth accumulation at the highest levels – specifically, the top 1 percent – around the world (UNCTAD 2012). In this global milieu of heightened consciousness of inequality, its presumed incidence in Malaysia may be taken for granted.

Public discourses on inequality tend to focus on rent-seeking and elite enrichment (at the expense of the masses), low wages of low-skilled workers, difficulties in coping with rising prices and in affording house ownership in particular, which drive a conclusion of increasing or intractably high inequality. Financial analysis of wealth accumulation estimate growing numbers of millionaires[2]. By and large, distinctions are not made between earnings, income, and wealth, including when referencing the official statistics which are exclusively based on gross household income. The general impression one can gather in public commentary and news reports is that inequality has been stubbornly unchanged at a high level, or rising[3]. On the other hand, some discourses are more focused on particular dimensions of inequality, particularly with regard to conspicuous and livelihood linked possessions like housing, where ownership – of lack thereof – impacts on sentiments toward relatively inclusion or exclusion. Soaring property prices and onerous loan payments appear to correspond with public anxieties and discontent toward the economic system[4].

Popular perceptions of inequality are difficult to gauge empirically. In this light, the Pew Research Center's (2013) survey of perceptions toward economic conditions adds noteworthy insight. The survey posed a few questions on how inequality has changed in recent years. In the Malaysian sample, 32 percent responded that inequality has increased, 38 percent that it has stayed the same, and 22 percent that it has decreased[5]. The share indicating inequality has increased is the lowest among the 39 countries surveyed. Nevertheless, the results show that more of the public perceive inequality has increased than the converse. Income and wealth are not differentiated – understandably, since such nuances would detract from the simplicity and brevity requisite in such surveys – but it may be fair to presume that a substantial portion of respondents view inequality in wealth terms. This tendency to perceive inequality in wealth terms, shaped by observation of

conspicuous consumption and the economic security of society's elites, can augment public disaffection at losing out on economic the growth, and feed impressions of wide disparities between the rich and the rest.

Empirical analysis and data sources

Having discussed the disconnection between the official data and discourses on inequality, and questionable features of the most recent statistics, we proceed to an empirical investigation. We pay particular attention to the earnings and wealth spheres, as identified gaps and dimensions of inequality where data are available. Time trends in earnings and wealth inequality can be computed from the HIS. Unfortunately, as noted above, access is restricted to this randomly sampled, nationally representative large dataset of the Household Income Survey (about 80,000 households), from which these trends are plotted. Hence, this paper attempts to inform the question of Malaysia's recent inequality by compiling and presenting data from a range of sources and observing consistencies and/or discrepancies with the official trend of downward household income inequality. We do not start from a stance of refuting the official statistics, but principally seek to complement those results with findings based on other data. The HIS remains a consistent and reliable database. However, evaluating inequality in Malaysia and the information gaps in this field must be guided by the following considerations, stemming from the specific information contained in the official estimates and their limitations.

First, the official figures exclusively report inequality in the form of gross household income, aggregating the income received by all members and across all sources – wages and allowances, self-employment earnings, property and investment income, and transfers and remittances. The computations make no distinction between earned income and gross income, that latter of which

includes both earned and non-earned income and transfer payments. A specific focus on earnings inequality will therefore fill an informational gap. Moreover, earnings correspond more closely with labour market dynamics, balance of bargaining power and structural change in the economy – development aspects warranting enquiry. Second, the official statistics omit wealth inequality, a highly important dimension that is increasingly acknowledged for the ways disparities can be reproduced across generations. This study therefore endeavoured to capture snapshots of wealth inequality and to plot patterns over time. Third, in terms of inequality indicators, the Gini coefficient has been computed as the primary metric, with income shares of the top 20 percent, middle 40 percent and bottom 40 percent reported in supplementary capacity. Inequality dynamics at the extreme ends – e.g. top one percent, top ten percent and bottom ten percent – have not been consistently calculated and disseminated. However, concentration of income and wealth in the topmost slivers has become a focal point of inequality discourses in Malaysia and around the world. Thus, wherever possible, we are interested in estimating income or wealth shares of narrower segments.

This study assembles data and estimates inequality levels from a range of sources, which serve as proxies for earnings and wealth. Earnings indicators must be integrated with the labour market and wage distribution, which is simpler to handle for formal employment. Self-employment and the informal economy pose major challenges for empirical research in general, and are omitted from this study. The utilization of wealth ownership, asset indices, or consumption of durable goods such as cars, are increasingly recognized and corroborated as acceptable proxies for income or living standards. A growing literature has tested the efficacy of asset-based indicators as alternatives to income or expenditure. Studies have analysed datasets such as UNICEF's Multiple Indicator Cluster Survey (MICS), the World Bank's Living Standards Measurement Surveys

(LSMS), USAid's Demographic and Health Survey (DHS), and country-specific surveys to assess the robustness of asset-based indicators in predicting various socioeconomic or welfare outcomes or in stimulating income levels, generally concluding that non-income variables can serve as reasonable alternatives in the absence of income or expenditure data (McKenzie 2005; Sahn and Stifel 2003; Po, Finlay, Brewster and Canning 2012; Harttgen and Vollmer 2011; Dadush and Ali 2012)[6]. These studies lend support to our endeavour to use car sales, property sales and financial investment holdings as proxies for income and wealth. At the same time, it is worth reiterating that, unlike the above studies that utilized randomly sampled large non-income datasets, such options are not available as alternatives to Malaysia's Household Income Survey.

The data selected for collection and analysis in this study adhered to three criteria, in terms of coverage, form and consistency:

1. The data must cover a broad sample of the relevant population, e.g. employees in the private sector, public sector workers

2. The data must permit estimation of inequality, chiefly the Gini coefficient, percentile shares (e.g. the proportion of total income/wealth accruing to those above the 90th percentile)

3. The dataset must provide a consistent series over time

Based on these criteria, the following data were obtained, mostly from published documents but also from unpublished databases:

- Earnings: Employees Provident Fund savings accounts, public sector employment, passenger vehicle purchases

- Wealth: housing sales as compiled by the National Property Information Centre (NAPIC), unit trust holdings of the largest funds

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Tables 1 and 2, respectively, outline the income or wealth dimension being examined and corresponding data sources, and provide some explanatory notes and justification for their inclusion in this empirical inquiry. For all data that could be transformed into a cumulative distribution, we applied the method used by Kakwani and Podder (1976) and Bellù and Liberati (2005) to estimate the Gini coefficient and percentile shares from such data. Due to the limited form of the secondary data we compile, we are unable to compute other variables such as the Theil index or Atkinson Index.

Table 1: Earnings distribution: indicator, data source and notes

Indicator	Data source	Notes
Private sector salaries	Employees' Provident Fund accounts (compulsory savings)	• All formal employees, except pensionable public sector workers, are required to register with the EPF, and to make monthly contributions to their accounts as long as they earn a basic salary. • The vast majority (90 percent) of Malaysia's employed population is in the private sector. The bulk of EPF savings cannot be withdrawn until account holders reach retirement age. • The EPF currently has 6.7 million active members, representing about 56 percent of the private sector employed population. • Distribution of EPF account size reflects basic salaries earned, since all account holders contribute at a uniform rate and earn the same dividend rate.
Public sector employees' earnings	Public sector employment	• Distribution of public service workers by strata (senior management / management and professional / support staff) correspond with earnings.
Durable goods expenditure – as a function of earnings	Malaysian Automotive Association (vehicle sales and prices)	• Passenger vehicle purchases derive closely from earnings; loans require proof of income stream • Sales data, by vehicle model and matched with price, can provide us another perspective on income distribution

Table 2. Wealth distribution: indicator, data source and notes

Income / wealth dimension	Data source	Notes
Unit trust ownership	Asset management funds, e.g. Amanah Saham Bumiputera	• Distribution of unit holdings can be taken as a reflection of financial wealth • A few funds do not represent the financial market, but trends in major funds may offer insight to ownership of these investments
Housing ownership	National Property Information Centre (NAPIC)	• From housing sales volume and price, we can estimate inequality in housing purchases as a proxy for inequality in property ownership

**Findings: Earnings inequality**

Employees' Provident Fund

Employees' Provident Fund (EPF) savings accounts furnish a highly useful data source for tracing distribution in earnings. The EPF is the largest retirement provident fund in Malaysia. At the latest count, it has 14.29 million members, of which 6.69 are active, and total investment amounts to RM 535 billion (EPF, 2013). EPF data are reported by scale brackets, not percentiles which would more readily provide the means for evaluating inequality (See Appendix Table 1). However, we are able to plot these data to a Lorenz Curve, estimate Gini coefficients and percentile shares (Appendix Figure 1).

All wage earning formally employed private sector employees hold EPF accounts, with standard contribution rates and equal dividend rates applied annually across the board. Hence, distribution of EPF accounts by size derives primarily from distribution of wages. It follows that inequality in EPF accounts over time mirrors changes in earnings inequality, provided there are no major fluctuations in account activity and inactivity, in withdrawal or closure of accounts, or in

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voluntary contribution rates. We find no evidence that the basic structure of EPF participation and contributions has changed sizably enough to negate the utility of this data source[7].

Our analysis shows that inequality in EPF active accounts has been on a mildly rising trend, with the Gini coefficient rising from 0.643 in 2004 to 0.663 in 2011, then flattening and dipping very slightly in 2014 (Figure 3). This may be due to the effective nationwide start of minimum wage enforcement in 2014 – minimum wage rates were determined and gazetted in 2013, but widespread exemptions were also granted. These Gini values exceed the ones derived from the Household Income Survey, in line with the fact that they represent accumulated savings over time, albeit referenced to wages. However, given that the contribution rate and dividend rate are constant across all salary levels, it is reasonable to deduce that changes in the Gini coefficient of EPF accounts are driven primarily by changes in wage inequality. We should also note that EPF contributions derive from basic salary, and exclude allowances. The level of inequality and change over time may be higher with the inclusion of allowances if there has been a shift toward increasingly remunerating high level staff through bonuses and variable, non-wage components, although we cannot empirically verify this possibility.

Figure 3. Gini coefficient of EPF savings accounts, 2004 - 2014
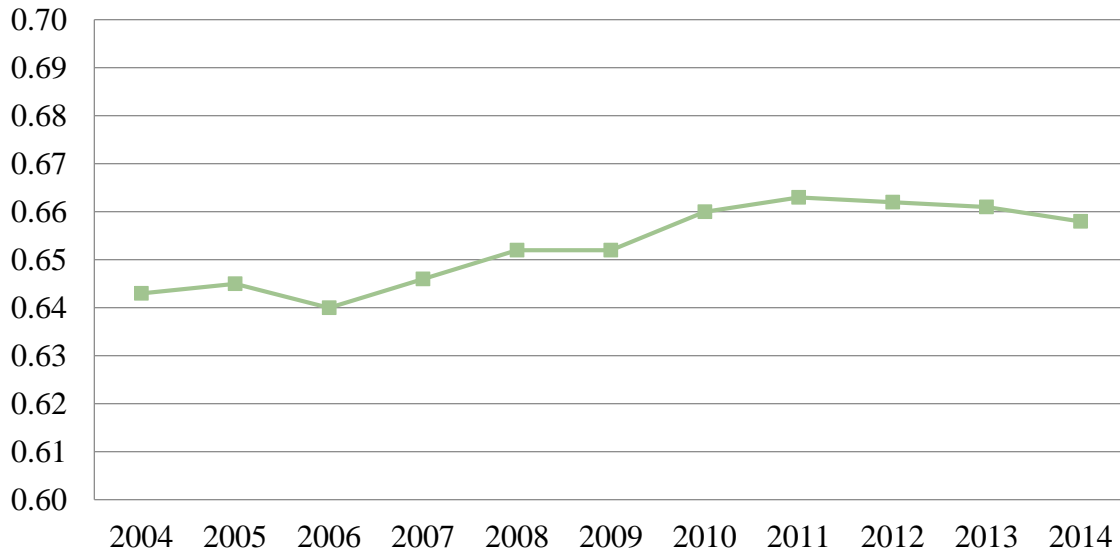
Figure 4. Share of EPF savings, by percentile segment, 2004 - 2014
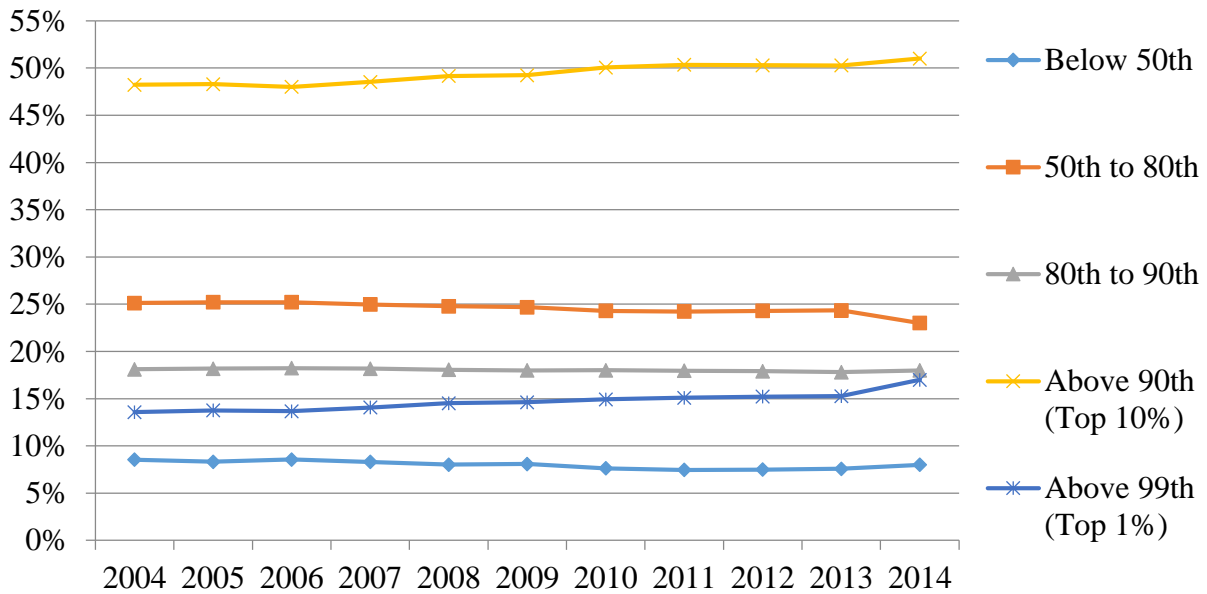
Computing the share of total EPF savings accruing to percentile-based brackets, we observe slight increase in concentration at the top (Figure 4). The share of the top 10 percent and top 1 percent - above the 90th and 99th percentiles, respectively – slightly but distinctly increased over the entire period with data coverage, 2004-2014, without tapering off after 2011 unlike the overall

Gini coefficient. The steep disparity is also demonstrated in that the top 1 percent of largest accounts hold 15 percent of total EPF savings, about double that of the bottom 50 percent, whose share of EPF savings is only about 8 percent. Therefore, in private sector wages, we find evidence of increasing concentration at the top.

This study also takes interest in inequalities between population groups, and EPF data affords scope for analysis according to age. EPF Annual Reports disaggregate savings accounts by age brackets, from which we compute real growth rates across time. The results are striking. Salaries of young workers in Malaysia have grown at markedly slower rates in recent years, translating into widening disparities in average EPF savings between young and middle-aged workers (Figure 5). The gap grows steeply in the 2000s, especially between the youngest and oldest categories. The ratio of average EPF savings of 45-55 year-olds to 16-25 year-olds swelled from 16.5 in 2000 to 20.8 in 2014. These findings concur with the commonly expressed concern toward low wage growth for young workers.

Figure 5. Employees' Provident Fund average savings by age group, per 16 -25 years, 2004 – 2014
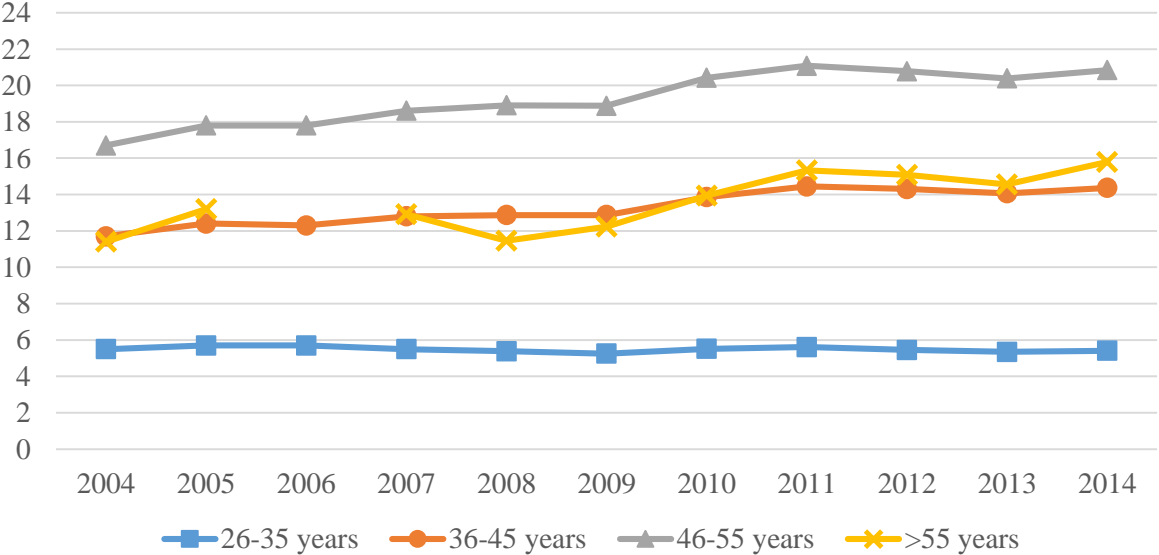
Source: Author's calculations from EPF Annual Report (various years)
Note: >55 category not available for 2006

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Public sector employment

Earnings distribution in the public sector is omitted in the preceding data, given that the majority of workers are on pension plans and hence do not contribute regularly to EPF accounts. Public services employment data, however, offer some insight into wage inequality. At the most basic level, the civil service corps is divided into top management, management and professional and support staff categories, with corresponding salary differentials. The distribution of workers among these three categories, therefore, permits broad inferences on possible changing patterns of inequality. Malaysia's public services have seen the proportion in top management and in management and professionals increase, a large proportion of which will be from education institutions, which have expanded recruitment and upgraded staff qualifications. School teachers obtaining degrees shift up to professional ranks and university professors are classified as top management.

The key observation in the distribution of public sector employment is the concentration in uppermost ranks. Top management positions enjoy considerably higher income. Thus, we can be certain that the income share of the top 0.17 percent, for instance, has increased, since top management constituted 0.09 percent of the public services in 1999 and 0.17 percent in 2012 (Table 3). The number of personnel in management and upper professional positions has grown more rapidly, most probably driven by the upgrading of teachers into professional rank through acquiring undergraduate degrees (Table 4).

The management and professional category is large, encompassing a wide range of salaries. Hence, the inequality-raising effect of these personnel expanding their share of total public sector employment must be treated cautiously. It is reasonable to posit that the wage share of the top segments has increased over time, and disparity between extremes may have increased, e.g.

between the top 0.2 percent and bottom 20 percent. However, the overall impact, such as captured in the Gini coefficient, is not estimable, and inequalities may also have been moderated by progressive salary adjustments in 2006, which gave relatively larger increments to lower ranked employees. Nonetheless, it is noteworthy that the main finding here corresponds with that of EPF accounts distribution: higher concentration of earnings at the top.

Table 3. Public services employment, by occupation (percentage of total),
1999-2012

	1999	2005	2012
Top management	0.09	0.10	0.17
Management and professionals	14.07	21.06	29.80
Support staff	85.84	78.84	70.02
Overall	100.00	100.00	100.00
Total employees (millions)	0.88	1.03	1.30

Source: Authors' compilations from the *Employment List of Ministries and Departments in the Estimated Federal Budget.*

Table 4. Average annual growth of public services employment,
with management and professional disaggregation, 2004-2012

Category	Code	Average annual growth (percent)
Top management	VK7-VU1	13.1
Management	52-54	23.0
Upper professional	48	9.2
Lower professional	41-44	9.6
Support	16-28	1.4

Source: Authors' compilations from the *Employment List of Ministries and Departments in the Estimated Federal Budget.*

Passenger car sales

Passenger car sales present a useful supplementary information source on earnings inequality. Car ownership is high in Malaysia: in 2012, 78 percent of households owned at least one car (Department of Statistics 2013). Passenger car purchases are principally for usage and not speculation or accumulation, and correspond closer with economic and labour market conditions.

Loan approvals hinge on proven income, especially for lower income buyers who have little savings to purchase with cash. Based on new passenger car sale data in the Malaysian Automotive Association records – volume sold and price, by model – we are able to compute distribution statistics[8] (Table 5). These figures indicate a rising share of vehicles sold at the high end, as well as at the bottom end. The share of vehicles priced RM80,000 (in 2005 prices) rose from 12.6 percent in 2001 to 18.1 percent in 2006 and 19.7 percent in 2011, and that of vehicles above RM100,000 also increased overall, from 11.1 percent in 2001 to 13.8 percent in 2011. Reports of rapid growth in luxury brands and compact cars corroborate these findings[9].

Table 5. New car purchases: Share of total number of vehicles sold, by price range (2005 constant Ringgit), 2001-2011.

	2001	2006	2011
≤40,000	24.4	30.1	30.0
40,001-60,000	43.5	36.2	34.0
60,001-80,000	19.4	15.5	16.3
80,001-100,000	1.5	8.5	5.9
100,001-200,000	9.1	8.0	11.4
200,001-500,000	1.9	1.5	2.2
≥500,001	0.1	0.1	0.2
	100.0	100.0	100.0
Total cars sold	278,300	379,300	417,500

Source: Authors' calculations from unpublished Malaysian Automotive Association records.

Findings: Wealth Inequality

Wealth, due to its various forms, vast scale, multiple ownership and complexities in valuation, is exceedingly difficult to estimate and track over time. This study by no means encompasses the full scope of wealth inequality, only a few areas in which ownership is documented, i.e. unit trust funds and property. Property sales statistics provide a longer series, but our coverage of financial

assets is limited to more recent years, in line with data availability and the launching point of some funds.

Amanah Saham Bumiputera

We compiled publically reported data of the largest equity unit-trust investment funds, including the government-linked Amanah Saham Bumiputera (ASB) and the eight largest private unit trust funds in Malaysia, based on the number of units (Table 6). These unit trust funds accounted for about 40 percent of the total number of units in the entire industry in Malaysia[10]. As with the EPF data above, we compute Gini coefficients and percentile-based statistics. Unfortunately, the breadth of brackets in the original reported data of these unit trust funds preclude credible estimation of smaller segments, such as the top 1 percent, which would be of interest.

Table 6. Malaysia's largest unit trust funds (at end January 2014)

Fund Name	Start Date	Fund Size (Million units)
Amanah Saham Bumiputera Nasional	2 Jan 1990	127,264.00
Public Ittikal	10 Apr 1997	4,377.83
Public Islamic Dividend (PIDF)	14 Feb 2006	4,332.66
Public Regular Savings (PRSF)	25 Apr 1994	4,113.05
CIMB Islamic Dali Equity Growth	7 May 1998	4,094.80
Public Islamic Select Enterprises (PISEFi)	14 Aug 2008	2,648.89
Public Islamic Equity (PIEF)	28 May 2003	2,201.03
Public Islamic Optimal Growth (PIOGF)	8 Apr 2008	1,450.69
Public Islamic Select Treasures (PISTF)	26 Feb 2008	1,315.97

Source: The Edge / Lipper Fund Table as at 20th Jan 2014

Amanah Saham Bumiputera, launched in 1990 and open only to Bumiputeras, is currently the largest unit trust fund in Malaysia, accounting for about 31 percent of total unit trusts in circulation in 2014. The number of unit holders increased from 6.0 million in 2005 to 8.6 million in 2014, and over these same intervals, the total units burgeoned from 44.1 billion to 137.3 billion. At end 2014, members held an average investment of RM15, 928. Replicating the same exercise as conducted on EPF data, we find that inequality in ASB is substantially higher compared to EPF accounts. We observe a decline in inequality, from 0.887 in 2005 to 0.836 in 2014, at an average of 0.64 percent per year (Figure 6).

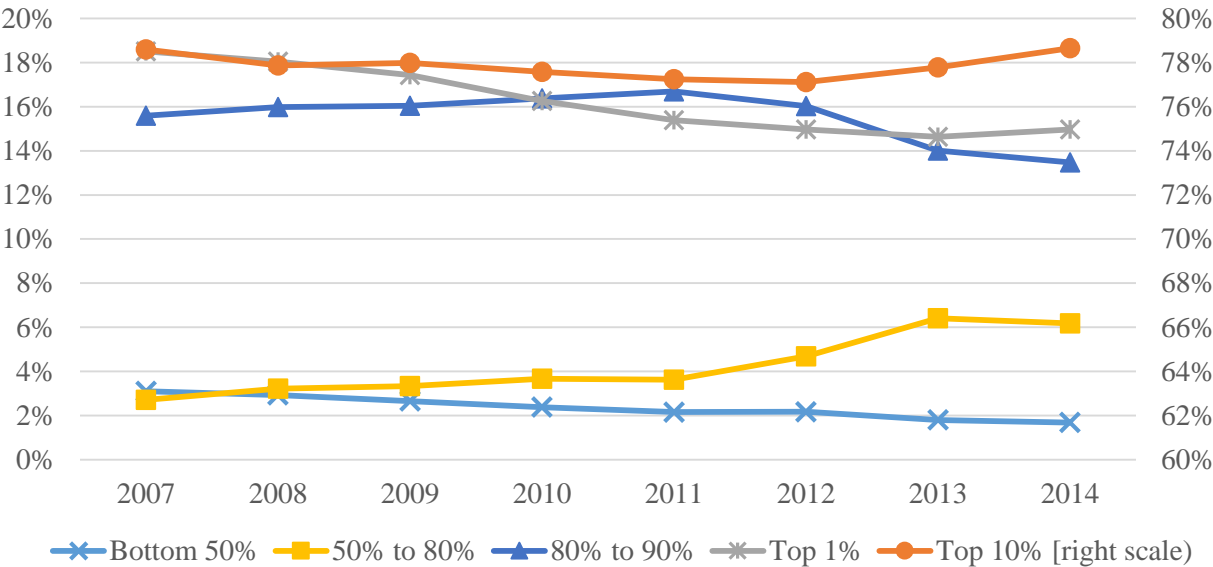Figure 6. Gini Coefficient of Amanah Saham Bumiputera Unit Holdings, 2007 - 2014
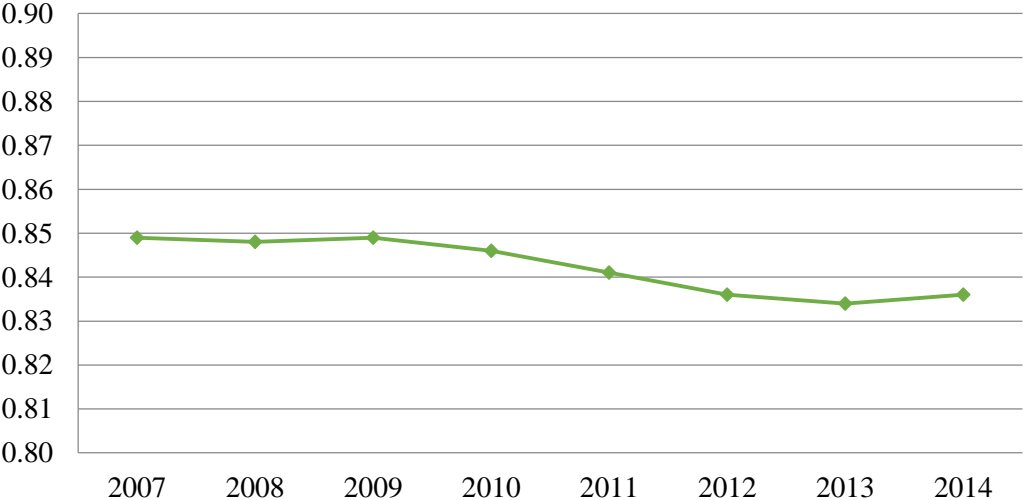
Source: Authors' calculations from Amanah Saham Bumiputera, *Annual Report* (various years).

Beyond this downward trend in the Gini, we observe other interesting distributional dynamics (Figure 7). The share of small holders is waning, yet inequality falls on the whole because the concentration at the very top is also declining. The share in total ASB holdings of those below the 50th percentile drops from 3.1 percent in 2007 to a staggeringly low 1.7 percent in 2014. At the same time, the share of the top 1 percent (above the 99th percentile) also declines, while the share

of the top 10 percent (above the 90th percentile) follows a bowl-shaped pattern, first descending (2007-2012) and then climbing (2012-2014). The RM200,000 limit on maximum purchases, at initial issuance of ASB units, partly accounts for this result by curbing runaway accumulation at the top. However, the share of middle upper strata, particularly those of the 50th to 80th percentile has been growing, from 2.7 percent in 2007 to 6.2 percent in 2014, leading to a declining Gini ratio even though the unit holdings of bottom half are proportionately dwindling.

Figure 7. Share of Amanah Saham Bumiputera unit holdings, by percentile brackets, 2007-2014

Source: Authors' calculations from Amanah Saham Bumiputera Annual Report (various years).

Private unit trust funds

We also measure inequality in financial wealth by analysing the distribution of some of the biggest private unit trust funds. We chose the top eight funds, based on size of units in circulation. Our observation spans 2009–2013, due to the fact that a few of them were launched in 2008. First, we note that the Gini coefficients of these funds are lower compared to ASB (Figure 8). This is not surprising, given their lesser reach than ASB, and no socio-political mandate of broad

participation, which has led to ASB's massive numbers of accounts but a vast majority with miniscule holdings. Inequality varies within this set of eight private funds, from the highest Gini registered at 0.75 to the lowest at 0.45.
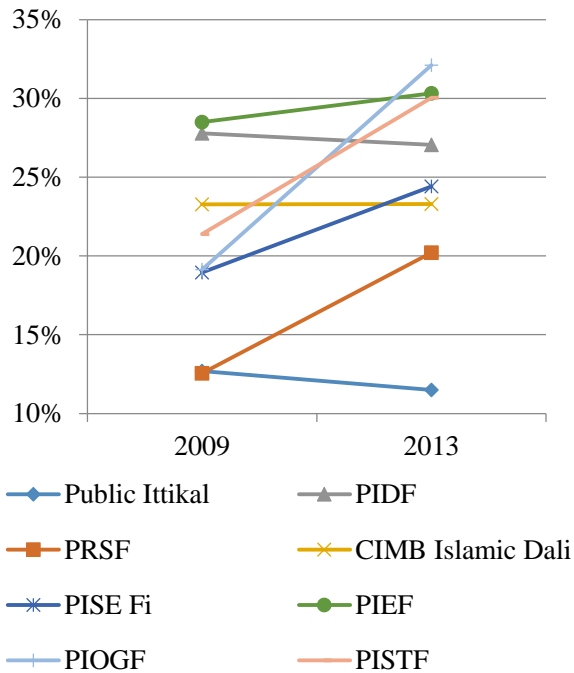
Fund maturity clearly corresponds with both inequality levels and changes over time. The older funds (started in 2003 or earlier) – CIMB Islamic Dali, Public Ittikal, PRSF, and PIEF – register higher Gini coefficients in 2013, at close to 0.55 or higher. Among the newer, post-2003 funds – PIDF, PISEFi, PIOGF and PISTF – the Gini rests between 0.45 and 0.52. Initial sales are spread over wider clientele, after which ownership tends to shift upward, reflected in the rising Gini of the newer funds from 2009 to 2013. Accordingly, more mature funds display higher concentration in the higher deciles (Figure 9). In similar fashion to ASB, the major changes, based on our segmentation, take the form of increasing shares in total units held by those between the 80th to 90th percentile, but falling shares among the top 10 percent (Figure 10).

Figure 8. Unit trust funds: Gini coefficient of selected unit trust funds, 2009-2013
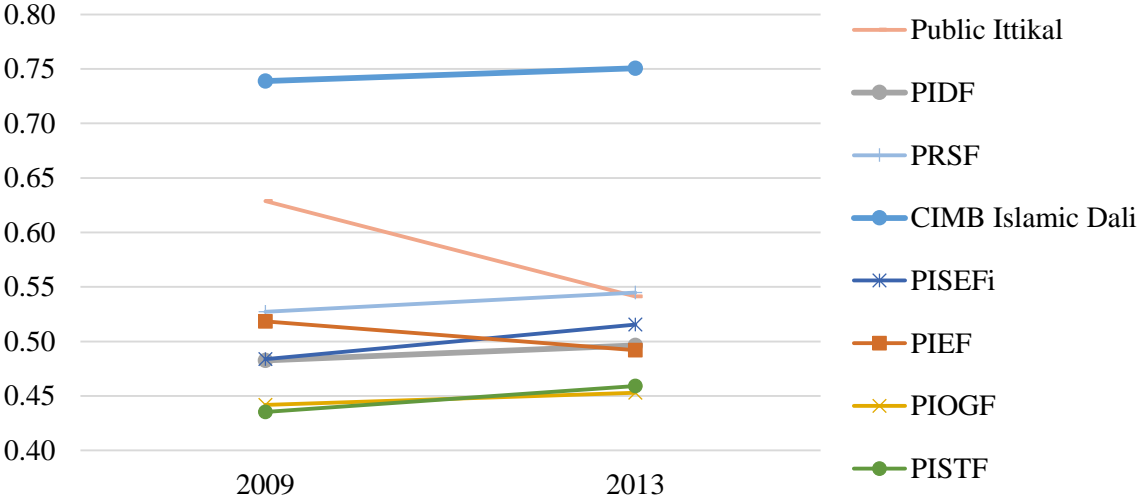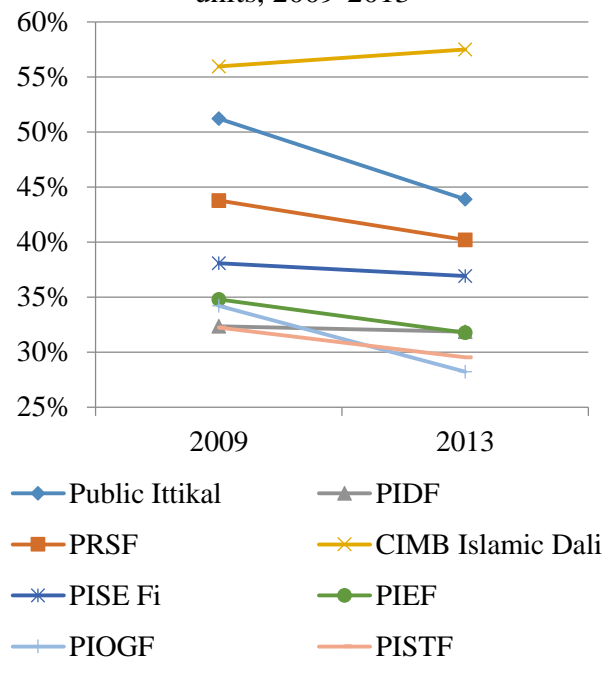

Source: Authors calculations from funds' annual reports.

Figure 9. Share of unit holders
between 80th & 90th percentiles,
per total units, 2009-2013

Figure 10. Share of unit holders
above 90th percentile, per total
units, 2009-2013

Source: Authors calculations from funds' annual
reports.

Source: Authors calculations from funds' annual
reports.

Property sales

This study examined inequality in residential property ownership, another form of wealth –
one that is arguably more consequential to real inequality in the long-term and perceptions of
inequality at any time, due to the conspicuous manifestation and social attachments to housing.
We estimate inequality by using data maintained by the National Property Information Centre
(NAPIC), which reports the number of property units sold and corresponding value, according to
sale price brackets. This format allows us to conduct the same empirical exercises that we did on
EPF and unit trust fund data. This property sales data face the same drawback as financial wealth
data, in that we cannot ascertain whether purchases are by first time buyers and/or owner-occupiers
versus speculative buyers. Another limitation of our data is the omission of multiple ownership.

Nonetheless, the data shed some light on inequality in this crucial aspect of wealth. As shown in the Figure 11, inequality in property ownership has clearly risen in the past decade, from a Gini of 0.44 in 2001 to 0.53 in 2012. Given that higher wealth individuals are more able and driven to accumulate assets, the distribution of property ownership by person or household will surely be higher than the results obtained here, although we cannot deduce whether the omission of multiple ownership alters the time trend of rising inequality that we report.
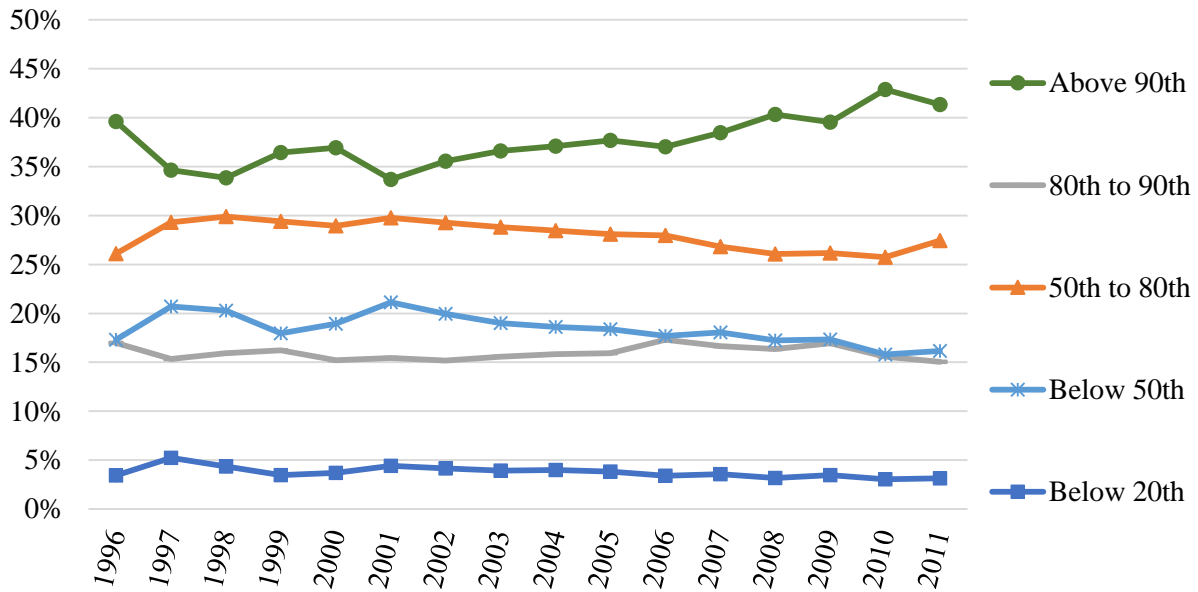
On the inner patterns of distribution, Figure 12 exhibits how this change is driven by accumulation at the upper crust, with the share of the top 10 percent expanding while that of the bottom 50 percent continuously falls. In other words, the value of property purchased by high-end buyers has grown more rapidly than property purchased by low-end buyers. This further suggests a systemic bias toward supplying higher priced housing, and rising wealth inequality based in property – a weighty economic and political issue in the contemporary context.

Figure 11. Gini coefficient of Residential properties sold per year, 1996-2011
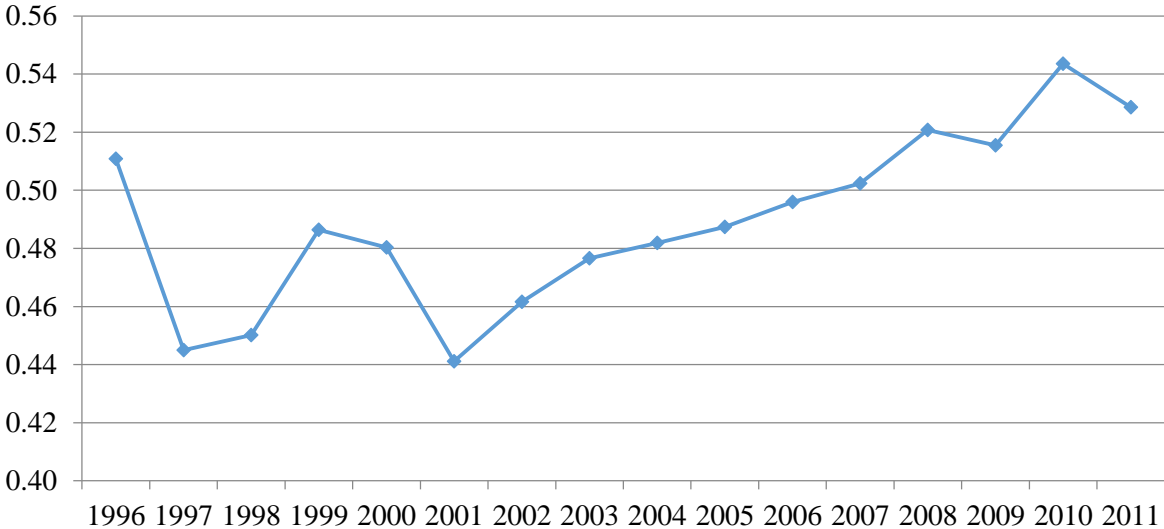
Source: Author's calculations from NAPIC data[13].

Figure 12. Property purchases: share of total value by percentile brackets, 1996-2011

Conclusion

In sum, this study fills some of the gaps between the officially documented decline in inequality and the discourses and perceptions of rising or persistently high inequality. The assertion that inequality has grown finds empirical grounds, going beyond observations of inequality-raising trends in labour markets and wealth ownership that induce assertions that inequality in Malaysia has increased or stayed high. In one respect, this study demystifies the puzzled state of knowledge and perception, since our findings largely concur with general observation. The first best option, we should reiterate, is to have the Household Income Survey available for independent research, *inter alia*, to disaggregate earned and non-earned income, to compute skewedness at the top, and to account for the highly questionable distribution patterns over the 2012-2014 interval. Employing next best options, we capture vistas of inequality trends that, unlike the HIS-based calculations, do not constitute a panoramic whole. Nonetheless, we

maintain that these findings, viewed in proper context, are informative and credible, and consistent with labour market and wealth ownership dynamics.

We obtain evidence, through analysis of Employees Provident Fund accounts, public sector employment and car sales data, that inequality is growing in earnings, in both private and public sectors, and is increasingly concentrated at the topmost strata. In wealth ownership, the data available for our analysis indicate clear rising inequality in property ownership. In unit trust holdings, we observe that the vast majority own very little, and have seen their share of total holdings declining, although ownership changes hand between the upper and upper middle brackets lead to overall estimates of steady or declining Gini coefficients. Comparing funds of varying maturity, we also see the tendency for ownership to become more skewed over time. It is worth remarking that sales of the more conspicuous consumption items – cars and houses – which probably fuel perceptions of inequality, show increasingly upward skewed distribution. Slightly rising inequality in EPF savings accounts, as a major repository of private sector wage data, is plausible in view of labour market phenomena consistent with rising inequality, chiefly persistence of low-skill, low-wage foreign migrant labour and slow growth of young workers' wages.

This study contributes to an under-researched field of contemporary inequality in Malaysia, in which measurement of levels and trends have been dependent on official disclosures through planning documents, and limited to gross household income as the unit of analysis. One advantage of the data used in this study is that they derive from records of particular populations, not survey samples. The data also apply the person as the unit of analysis, which provides accompaniment to the household-level documentation of inequality presented in Malaysia's development plans, although the major differences in data sources circumscribe the complementary role of this paper's findings with regard to the official statistics. Undoubtedly, various specificities and limitations

also require that our findings be placed in proper context. The data capture various segments, and hence we do not obtain inequality estimates that encompass the entire country in the manner of a nationally representative income survey. We are also unable to capture multiple sources of income and wealth, although it is reasonable to assume that the higher the strata the more likely the diversification and accumulation of ownership. Thus, this study will tend to underestimate inequality.

The puzzle of conflicting inequality accounts partly persists. How might the discrepancies be explained? A few plausible, though ultimately inconclusive, arguments are worth considering. It is possible for gross household income inequality to decline while personal earnings inequality rises, particularly with transfers and remittances to low income households, which would validate both our data and the Household Income Survey. However, our findings also suggest that the HIS may have diminished in efficacy at compiling income data, or that computation of transfers and remittances and imputed rent have inflated gross incomes at the bottom of the distribution, thus exaggerating reductions in inequality. While the questionnaire and sampling have remained consistent, the suitability of data collecting methods and questionnaire design, and the responsiveness of sampled households, may have declined in recent years. This study gives notice to critically examine the HIS and to explore earnings inequality and other dimensions beside the highly limited convention of observing gross household income inequality. More broadly, this study issues a clarion call for earnings and wealth inequality to be increasingly incorporated into academic and policy discourses on Malaysia.

Ethnic and regional disparities have preoccupied policy attention in Malaysia over many decades, and such dimensions of inequality remain salient, but it is paramount, politically as well as economically, to view inequality from systemic angles. Further enquiry is imperative, to

examine the structural roots of high and rising wage inequality and to assess the efficacy of recent redistributive programmes, notably minimum wage and social transfers such as the BR1M, especially in terms of Malaysia's chronic dependency on low-skilled migrant workers which detracts from the aspirations for a high income, equitable and sustainable economy. Wealth inequalities, with their capacity to reproduce across generations and even widen over time, also pose steep challenges to these national development objectives.

Notes

1. The HIS would undoubtedly be the most preferred data source – provided we can gain full access. Unfortunately, although there is a policy permitting the HIS to be purchased by researchers, in practice, data access is administered with an exceedingly high level of restriction, arbitrariness and unpredictability, which in addition to exorbitant charges, nullify the prospects for obtaining the raw data according to our study's specifications and objectives. The Malaysian government agencies holding the HIS datasets retain discretionary power to approve release of data variable by variable, and have demonstrated an inimical stance toward independent research, especially work that involves critical scrutiny of official statistics and policies. Datasets are not availed in full, but are customized on an ad hoc basis. The authors' decade-long experience in researching inequality and interaction with scholars who have tried to access the HIS compelled the conclusion that depending on access to the requisite HIS series would jeopardize the progress of this research project. These prohibitive policies also apply to the Household Expenditure Survey (HES) datasets, a supplementary source for studying income inequality. The recent rounds of the HES were conducted in 1998/99, 2004/05, and 2009/10, and thus also not as contemporary as the HIS. The utility of the HES data, however, can be seen in poverty line income studies by Mok, Maclean and Dalziel (2013).

2. In October 2011, Credit Suisse estimated that Malaysia had (US$ denominated) 39,000 millionaires in mid-2011, and that the number had almost doubled from 20,000 in the preceding 18 months ("Twice as many millionaires in Malaysia over last 18 months", *The Star*, 25 October 2011, http://www.thestar.com.my/story/?file= percent2F2011 percent2F10 percent2F25 percent2Fnation percent2F9768085 (accessed 31 December 2014)). In December 2014, Wealthinsight reported finding 26,000 Malaysian millionaires in 2013, and predicted growth to 30,000 in four years ("Kuala Lumpur tops global rich list with 13,800 millionaires," *TheMalayMailOnline*, 9 December 2014, http://www.themalaymailonline.com/malaysia/article/kuala-lumpur-tops-global-rich-list-with-13800-millionaires (accessed 31 December 2014).

3. Two examples are illustrative. First, Malaysiakini reported a "widening" wealth gap, but with reference to the household income Gini coefficient, which in any case changed negligibly, from 0.440 in 2007 to 0.441 in 2009 (*Malaysiakini*, "Malaysia suffers first rise of poverty rate since 1999," 24 July 2012, http://www.malaysiakini.com/news/204449 (accessed 23 June 2013)). Second, two Reuters reporters made generalized claims of widening inequality in two news reports prior to the 2013 general elections.(Lily Grimes, "Malaysians look ahead to election as income gap widens," 1 May 2013, http://in.reuters.com/video/2013/05/02/malaysians-look-ahead-to-election-as-inc?videoId=242595220 (accessed 2 July 2013); Niluksi Koswanage, "Malaysia's 'class war' fuels opposition election hopes," 2 May 2013, http://www.reuters.com/article/2013/05/02/us-malaysia-politics-idUSBRE94116T20130502

(accessed 2 July 2013)). For further examples, see the following. Chee Yoke Heong (2004, 5 27) "Anti-poverty moves: Old wine, new bottles?" *Asia Times Online,* 27 May 2004, http://www.atimes.com/atimes/Southeast_Asia/FE27Ae05.html (accessed 2 July 2013). Charles Hector, "Who's to blame for Asia's Highest Income Inequality," *Malaysiakini,* 27 August 2007, http://www.malaysiakini.com/letters/71648 (accessed 23 June 2013). Krishnamoorthy, M., "NEP widened wealth disparities, says new book," *Malaysiakini*, 15 November 2012, http://www.malaysiakini.com/news/214204 (accessed 10 July 2013). G. Lim, "Debating an equitable Malaysia: Towards an alternative New National Agenda," *Aliran Monthly* 25 no. 8 (2005), http://aliran.com/archives/monthly/2005b/8h.html (accessed 2 July 2013). Chandra Muzaffar, "Huge Income Gap a 1Malaysia Challenge," *Malaysiakini*, 9 August 2010, http://www.malaysiakini.com/letters/139586 (accessed 23 June 2013).

4. Consumer Association of Penang, "A credible housing policy is long overdue," http://www.consumer.org.my/index.php/development/socio-economic/304-a-credible-housing-policy-is-long-overdue (accessed 2 July 2013). Thean Lee Cheng, "The ever-rising house prices," *The Star,* 19 January 2013, http://www.thestar.com.my/story.aspx?file= percent2f2013 percent2f1 percent2f19 percent2fbusiness percent2f12598007&sec=business (accessed 2 July 2013). Sim Bak Heng, "Property prices just keep rising," *New Straits Times*, 2 June 2013, http://www.nst.com.my/streets/johor/property-prices-just-keep-rising-1.292008 (accessed 2 July 2013). Tricia Yeoh, "Not easy housing Malaysians," *Penang Monthly*, 12 August 2012, http://penangmonthly.com/not-easy-housing-malaysians/ (accessed 2 July 2013).

5. This Pew Survey in Malaysia was conducted in March-April 2013 through a multi-stage cluster sample of 822 adults stratified by state and urbanity.

6. These studies referred to the following datasets: Mexico's income and expenditure survey (McKenzie 2005), LSMS, MICS and DHS (Po *et al.* 2012), DHS (Harttgen and Vollmer 2011), LSMS (Sahn and Stifel 2003), and Ward's World Motor Vehicle Database (Dadush and Ali 2012).

7. This study was presented in a seminar at the Employees Provident Fund (4 February 2015). The authors gratefully acknowledge the EPF management and staff for verifications of our statistical computation and for comments on the findings.

8. The Malaysian Automotive Association maintains passenger car sales records, encompassing all major brands, from compact cars to sedans to luxury vehicles, including exclusive models by carmakers such as Mercedes Benz, BMW and Porsche – but excluding the super elite makes like Ferrari and Maserati. Data on volume of sale were basically complete, but some sale price figures were unavailable. We fill in missing numbers by sorting into price range categories, since we are unable to confidently arrive at precise imputed prices. We imputed sale prices for 2011 based on current price listings at

www.carlist.my. For 2006 and 2001, we imputed sale prices from the price ratios between models (e.g. a 2.0L model is 1.5 times the price of a 1.6L car of the same maker) or the average price of similar models (e.g. Toyota Camry is in the same price category as Honda Accord). All data are based on 2005 prices. With fairly broad price ranges, we are sufficiently confident that our imputed price data are reliable.

9. "Another good year for Mercedes Benz", *Motor Trader*, 11 January 2011, http://www.motortrader.com.my/news/another-good-year-for-mercedes-benz-malaysia/ (accessed 27 April 2013), "Luxury cars sell like hot cakes", *New Straits Times,* 8 February 2013, http://www2.nst.com.my/opinion/columnist/ luxury-cars-selling-like-hot-cakes-1.214973 (accessed 27 April 2013), "Perodua records highest ever sales of 189,000 cars in 2012 (Update)", *The Star Online*, 15 January 2013, http://www.thestar.com.my/Story/?file= percent2F2013 percent2F1 percent2F15 percent2Fbusiness percent2F20130115104938 (accessed 27 April 2013).

10. This is based on total units in circulation of 400 billion in January 2014, as registered with the Securities Commission (http://www.sc.com.my/wp- content/uploads/eng/html/resources/stats/ stat_2014.pdf).

11. It is worth noting that Malaysia's consistent Gini series begins in 1989. Previously, only Peninsular Malaysia was included in the 1970s and in 1987, and prior to 1989 included non-Malaysians. From 1989 onwards, the computed indices refer only to Malaysians, and encompass Peninsular Malaysia and East Malaysia. The data reported here and these notes are taken from the Economic Planning Unit (http://www.epu.gov.my/en/household-income-poverty).

12. Data are compiled from the Economic Planning Unit's online inequality statistics portal (http://www.epu.gov.my/en/household-income-poverty), and Department of Statistics (2015).

13. Data collected from the NAPIC website: http://napic.jpph.gov.my/.

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Appendix

Appendix Table 1

Table 2. Distribution of Employees' Fund savings (end 2010)

Total Savings by bracket	Number of accounts within bracket	Total savings within bracket (Ringgit)	Cumulative accounts (%)	Cumulative savings (%)
<1-1000	517,019	224,826,828	8.6	0.1
1001-2000	291,927	429,178,238	13.4	0.2
2001-3000	218,759	542,935,919	17.0	0.4
3001-4000	180,401	629,689,150	20.0	0.6
4001-5000	160,194	719,751,662	22.7	0.9
5001-6000	148,480	815,761,639	25.1	1.1
6001-7000	136,794	888,785,693	27.4	1.4
7001-8000	127,669	957,116,674	29.5	1.7
8001-9000	120,156	1,020,890,476	31.5	2.1
9001-10000	114,324	1,085,670,171	33.4	2.5
10001-15000	499,902	6,206,887,827	41.7	4.5
15001-20000	405,212	7,057,750,446	48.4	6.9
20001-25000	341,276	7,656,281,696	54.0	9.5
25001-30000	290,083	7,958,268,033	58.8	12.1
30001-35000	248,286	8,053,641,553	62.9	14.8
35001-40000	214,415	8,028,809,226	66.5	17.5
40001-45000	186,802	7,928,766,806	69.6	20.2
45001-50000	164,590	7,808,923,927	72.3	22.8
50001-60000	272,664	14,939,780,544	76.8	27.8
60001-70000	214,762	13,917,202,259	80.4	32.4
70001-80000	173,367	12,972,921,797	83.3	36.8
80001-90000	139,559	11,837,031,197	85.6	40.7
90001-100000	115,269	10,933,197,300	87.5	44.4
100001-110000	96,356	10,101,958,824	89.1	47.8
110001-120000	80,620	9,259,717,225	90.4	50.9
120001-130000	67,943	8,483,925,838	91.5	53.7
130001-140000	57,442	7,747,883,608	92.5	56.3
140001-150000	48,206	6,983,578,716	93.3	58.6
150001-300000	288,624	58,677,225,669	98.1	78.3
300001-400000	50,296	17,262,890,735	98.9	84.1
400001-500000	24,592	10,931,440,844	99.3	87.7
500001-600000	13,568	7,404,926,009	*99.5*	*90.2*
600001-700000	8,264	5,341,686,953	99.7	92.0
700001-800000	5,419	4,046,268,946	99.7	93.3
800001-900000	3,729	3,156,948,381	99.8	94.4
900001-1000000	2,519	2,382,453,253	99.9	95.2
>1000000	9,162	14,366,283,645	100.0	100.0
Total	6,038,650	298,761,257,707	100.0	100.0

Source: Author's calculations from the EPF Annual Report 2010

Appendix Figure 1