#### Hong Kong's Gini coefficient compared with other economies

#### Introduction

The Gini coefficient compiled by the Census and Statistics Department (C&SD) in 2006 based on original income stood at 0.533. Normally, a Gini coefficient below 0.2 indicates equitable income distribution, 0.2-0.3 fairly equitable, 0.4 the international inequality threshold alert line, 0.4-0.5 fairly inequitable, and above 0.5 considerable disparity. By this standard, Hong Kong's figure would appear rather high. This article examines some factors of Hong Kong's income disparity, and compares Gini coefficients across economies in light of their per capita output, stage of development in terms of the size of services sector as a percentage share of GDP, and tax burden. It also discusses the difficulty of cross-sectional comparison of Gini coefficients due to different measurements, and alternatively compares the change of Gini coefficient across time for selected economies.

#### Gini coefficients are not strictly comparable across economies due to different adjustments for income redistribution effects, household size and composition

The comparisons in this note make use of officially reported Gini coefficient data, except for those specified in the footnotes. However, economies define and adjust income differently when compiling the Gini coefficient, which makes direct comparison problematic. One major difference is in the use of gross versus disposable income. Gini coefficient based on gross income is a raw measure of the extent of disparity due to the original income households receive, while that based on disposable income takes into account the redistributional effect of taxation and social transfer, and so is generally lower than the gross income measure.

Another difference is in the adjustment for household size and composition. Some Gini measures try to filter the effect of demographic changes, as the Gini coefficient is sensitive to the two ends of the spectrum and accounts for income only but not wealth. For example, excluding one-person households or retired households with very low or zero income will make the Gini coefficient look more favourable. This is most relevant to advanced economies with a rising number of nuclear families or an aging population. Economies adopting the exclusion approach include Singapore (which excludes retiree households) and Japan (which has more sophisticated exclusions). Other economies, notably Europe, adjust for the number of household members to arrive at the per capita income, or give weightings to emphasize or de-emphasize certain household members (e.g. the UK's McClements scale and Germany's OECD scale assign different weights to the first adult, subsequent adults and children of different ages). These adjustments have the effect of equalising income and lowering the Gini coefficient, compared with using the raw "original" income.

The variety of Gini measures provide different angles of understanding income disparity, and comparing one against another can gauge the effect of social transfer and demographic changes on income distribution. The problem is, economies do not report all these at the same time, which makes cross-sectional comparison difficult. *Table 1* lists the definitions of income and household adjustments by selected economies. The commonly reported official measures are in bold.

Original Jouschal income         0.533         Induction           International internation income         0.475         International international income           Internation income         0.475         International international income           Internation income         0.488         International international income           International international income         0.488         International internatinal internatinternational international international internationa		Definitions of income	Gini index	Description
Hx         Post-tax bouschold income         0.521           Per capita original bouschold income         0.492           Per capita original bouschold income         0.488           Per capita original bouschold income         0.490           Per capita original bouschold income         0.490           Money income         0.490           Market income         0.440           Post-social insurance income         0.440           Disposable income         0.440           Money income except government meant-reside caht transfers: includes government meant-reside caht transfers: includes inguerant meant-reside caht transfers includes income including gians and loses, imputed rate of return on home equity: subtract imputed vakt expenses and tasse or market imputed rate of return on home equity: subtract imputed vakt expenses and tasse or market imputed vakt expenses and tasse or market imputed rate of return on home equity: subtract imputed vakt expenses and tasse or market imputed rate of return on home equity: subtract imputed vakt expenses and tasse or market imputed rate of return on home equity: subtract imputed vakt expenses and tasse or market imputed rate of return on home equity: subtract imputed vakt expenses and tasse or market imputed rate of return on home equity: subtract instruct in the state state ex		Original household income	0.533	
UNK (2000)         Perceptia positive positive bouched income         0.475           Perceptia positive household income         0.592           Perceptia positive household income         0.488           Perceptia positive household income         0.488           Market income         0.490           Market income         0.490           Market income         0.490           Post-social insurance income         0.400           Post-social insurance income         0.400           Post-social insurance income         0.400           Post-social insurance income         0.400           Post-social insurance income         0.32           Pairvalised income including the value of noncarahit           Portage in income         0.33		Post-tax household income	0.521	
(2006)         Per capita optis ta Nousohold income         0.502           Per capita post-tax post-social transfer housohold income         0.427           Image: target tay income         0.490           Image: target tay income         0.491           Image: target tay income         0.491           Image: target t	HK	Post-tax post-social transfer household income	0.475	
Per capit post-tax boushold income         0.488           Per capit post-tax boushold income         0.477           Money income         0.470           Market income         0.470           Market income         0.470           Post-social insurance income         0.470           Market income         0.460           Market income         0.470           Post-social insurance income         0.440           Disposable income         0.440           Disposable income         0.440           Orginal income (before taxes and henefits)         0.440           Disposable income         0.440           Orginal income (before taxes and henefits)         0.52           Disposable income         0.341           Orginal income (before taxes and henefits)         0.52           Disposable income         0.341           Disposable income         0.341           Orginal income (before taxes and henefits)         0.52           Disposable income         0.341           Disposable income         0.341           Orginal income         0.342           Post-tax income         0.342           Post-tax income         0.341           Post-tax income         Post-tax income p	(2006)	Per capita original household income	0.502	
Per capita post-tax post-social transfer household income         0.427           Money income         0.450           Income before deductions for taxes and other expenses; includes goronment cash transfers; and includes imputed realized capital gains and losses, and imputed rate of return on home equity, subtracts transfers; includes imputed rate of return on home equity, subtracts includes imputed rate of return on home equity, subtracts imputed values; relevant and income transfers; includes imputed rate of return on home equity, otherwise imputed values; relevant and income transfers; imputed values; relevant and income; imputed values; imputed values; imputed values; income; imputed values; income; income; income; income; income; income; income; income; income; income; income; income; income; income; income; in		Per capita post-tax household income	0.488	
Money income         0.450         Income before deductions for taxes and other expenses, includes government cash transfers and exceeded exce		Per capita post-tax post-social transfer household income	0.427	
Money income         0.450           Prote bolic ducks government cash transfers and excludes cipital gains and noncell benchises and transfers and excludes cipital gains and noncell benchises.           Market income         0.450           Market income         0.450           Post-social insurance income         0.440           Morey income except government cash transfers: includes inputed enabled cipital gains and nonceable processors.           Morey income except government cash transfers: includes inputed enabled cipital gains and nonceable processors.           Morey income including the value of nonceable income equity: adhered in gains and nonceable transfers: includes inputed enabled calculation on the equity: adhered in gains and nonceable transfers. Imputed realized capital gains. Self-comployment inconsferet transfers. Imputed				In a surge haffang da da sti ang fan tanan and ath an
Index         0.3-0         explants, include government cast instances and exclude sequences hereits and exclude interaction share exclusions except government neurons-treted cases induces impact and exclude sequences hereits and exclude interactions induces impact and exclude sequences with exclusions except government neurons-treted cases impact and excluse interactions induces impact and exclude sequences with exclusions except government neurons-treted graph and excluses impact and excluses interactions in an excluse exclusion of excluses and excellent in an excluse income from excluses interactions and investment income from excluses inco		Monovingomo	0.450	avpanses: includes government cash transfers and
UK         Description         De		woney income	0.430	expenses, includes government cash transfers and
Market income         0.496         includes imputed variated tagital gaital gai				Money income except government cash transfers:
Market income         0.496           Market income         0.496           (2004)         Post-social insurance income         0.449           Post-social insurance income         0.449           Disposable income         0.400           Disposable income         0.400           The social insurance income         0.400           Disposable income         0.400           The social insurance income         0.400           The social income (before taxes and benefits)         0.52           Corsis income         0.37           The social income (before taxes and benefits)         0.52           Corsis income         0.37           Post-tax income plus benefits provided by the state           Generative income, includes all original income from vages and social insurance income, includes all original income includes all original income plus benefits provided by the state           Generative income         0.37           Final income         0.41           Generatin income (Comprehensive				includes imputed realized capital gains and losses
US         Imputed work expenses         Imputed work expenses         Imputed work expenses         Imputed work expenses           US         Post-social insurance income         0.449         Section of return on home equity: untrace imputed varie expenses           Disposible income         0.400         Market income including the value of mucash random patted work expenses in market and tacks; reflects the net impact of government transfers and tacks; on market impact of government transfers and tacks on market impact of government transfers and tacks; on market income including income plus adarts, equil-subject tacks, equily adarts income from wages and salarts, equily adarts income from sugges and salarts, equily adapted work expenses to the state           UrK         Grass income         0.37         Disposable income is possible income is possible income is possible income plus back tacks equivalised           (20050)         Post-tax income         0.34         Cross income less direct tacks equitalised           (20051)         Post-tax income         0.37         Disposable income less portent of indirect tacks; equivalised           (20051)         Post-tax income         0.38         Oras income less direct tacks; equivalised           (20051)         Post-tax income (Comprehensive Survey)         0.41         Post-tax income plus bach from output of tacks equipation on the state           (20051)         Disposable income (Redistribution Survey)         0.41         Comprehensive Survey of Living Conditions of the post-tax income		Market income	0.496	and imputed rate of return on home equity: subtracts
US (2004) Post-social insurance income 0.449 Money income except government manes-tested call insurance income 0.449 Honey income relative capital gains and ioses, and imputed ratic of return on home equity: ubtracts imputed once systems of return on home equity: ubtracts imputed once systems imputed rate of return on home equity: ubtracts imputed once of government transfors and taxes on market imputed rate of government transfors and taxes on market income 0.400 Original income (before taxes and benefits) 0.52 alaries, self-employment income from vages and income 0.34 Gross income (before taxes and benefits) 0.52 alaries, self-employment income from occupational income from income plus benefits in kind received from her state 0.37 Equivalised income: 0.38 Germany (2005) Equivalised income 0.34 Gross income for one-self with UK Germany (2005) Equivalised income 0.28 Germany (2005) Equivalised income 0.34 Gross income (Comprehensive Survey) 0.41 Comprehensive Survey) 0.42 Comprehensive Survey 0.44 Comprehensive Survey) 0.44 Comprehensive Survey) 0.44 Comprehensive Survey 0.44 Comprehensi				imputed work expenses
Column Column	UC			Money income except government means-tested cash
Post-social insurance income         0.439         losses, and inputed rate of return on home equity; subtracts inputed work expenses           Disposable income         0.400         money income including the value of noncash market income         Money income including the value of noncash market income           UK         0         Equivalised income; includes income from wages and startics, safe engles, but non- incerupational pensions and investment income           (200506)         Original income (before taxes and benefits)         0.52         Equivalised income; includes income from occupational pensions and investment income           (200506)         Original income         0.34         Spatialised income; includes all original income plus cash herefits provided by the state           (200506)         Disposable income         0.34         Disposable income from occupational pensions and investment income           (200506)         Disposable income         0.34         Original income (before taxes and benefits)         0.34           (200506)         Disposable income         0.34         Disposable income less payment or indirect taxes; equivalised requivalised           (20050)         Equivalised income         0.34         Rose income from occupational pensions and investment of the Oper-tax income plus benefits in kind received from the state           (20050)         Equivalised income         0.38         Rose income from occupatinal disces, tare income of the state	(2004)	D. (	0.440	transfers; includes imputed realized capital gains and
intervention         intervention         intervention         intervention           intervention         intervention         intervention	(2004)	Post-social insurance income	0.449	losses, and imputed rate of return on home equity;
Bisposable income         Money income including the valued of non-ash imputed rate of return on home equity: subtracts income return on home equity: subtracts income equity: subtracts income includes and income, income from wages and satarise, self-employment income, income from wages and satarise, self-employment income, income from occupational persions and investment income proceeding income includes all original income plus satarise, self-employment income, income from occupational persions and investment income includes all original income plus satarise, self-employment income, income from occupational persions and investment income includes all original income plus cash benefits provided by the state           (2005)         Disposable income         0.37         Equivalised income [see sagared of the state           (2005)         Disposable income         0.37         Equivaliated income plus sentific taxes; equivalised           (2005)         Faul income         0.37         Equivaliated income plus benefits in kind received from the state           (2005)         Faul income         0.28         Adjusted for household size and composition by the OECD equivalence scale (compared with UK MocECD equivalence scale (				subtracts imputed work expenses
Disposable income         0.400         transfers, inputed realized capital gains and losses, imputed work expenses and taxes; reflects the net impact of government transfers and taxes on market income           UK         Original income (before taxes and benefits)         0.52         Equivalised income: includes sincome from wages and starts, stiff-employment income, income from mease and scalards, stiff-employment income, income from wages and starts, stiff-employment income, includes all original income plus cash benefits in kind received from the state           Question         Post-tax income         0.37         Equivalised income less apprent of indirect taxes; capital all original income for on-errors on buscholds include taxes and to deciles)           Germany (2005)         Equivalised income (Comprehensive Survey)         0.41         Post-tax income for on-errors on taxes with income three starts distify the state           Japan (1999)         Disposable income (Comprehensive Survey)         0.41         Comprehensive Survey of Living Conditions				Money income including the value of noncash
Disposable income         0.400         Imputed vark expenses and uses; effects the net impact of government transfers and taxes on market income           UK         0riginal income (before taxes and benefits)         0.52         Fauivalised income; includes income, income from wages and salaries, self-employment income, income from wages and salaries, self-employment income.           (2005:06)         Disposable income         0.37         Equivalised income; includes all original income plus can benefits provided by the state.           (2005:06)         Disposable income         0.34         Gross income less direct taxes; equivalised income plus benefits in kind received from the state.           (2005:07)         Final income         NA         Post-tax income plus benefits in kind received from the state.           (2005:07)         Fuguralised income         0.28         Adjusted for household size and composition by the OECD equivalence scale (compared with UK for McClements scale: smaller equivalised income for one-person households and reduces that for non-retired ones, widens gap between bottom and top deciles)           Japan         Market income (Comprehensive Survey)         0.41         Comprehensive Survey of Living Conditions of the Poople on Headth 31 person number of from one-extrate masures for working-age and elderly populations; adjusted for household size           Japan         Disposable income (Redistribution Survey)         0.472         Survey on the Redistribution for none-extrate masures for working-age and elderly populations; adjusted for household size				transfers, imputed realized capital gains and losses,
Impute of growment transfers and taxes; reflects the net imput of growment transfers and taxes; market income           UK         Original income (before taxes and benefits)         0.52         Equivalised income; includes all original income plus cash benefits provided by the state.           Gross income         0.37         Equivalised income; includes all original income plus cash benefits provided by the state.           Disposable income         0.34         Gross income less after taxes; cquivalised post-tax income less payment of indirect taxes; equivalised for households ize and composition by the OECD equivalence scale (compared with UK McClements scale; smaller equivalised income for one-person households, withing inquiring the ouseholds and top deciles)           Germany (2005)         Equivalised income         NA         Post-tax income plus benefits in kind received from the state           Germany (2005)         Equivalised income         NA         Clear equivalised for ouseholds wither size with the mouseholds and composition by the OECD equivalence scale (compared with UK McClements scale; smaller equivalised income for one-person households, withing onditions of the People on Health and Weffare; excludes households income (Redistribution Survey)         0.414           Japan (1999)         Market income (Redistribution Survey)         0.414         Comprehensive Survey of the propole in Health and Weffare; excludes households income from work per household size           Japan (1999)         Market income (Redistribution Survey)         0.431         Anong employed households, average household income form work		Disposable income	0.400	imputed rate of return on home equity; subtracts
Impact of government transfers and takes on market           Gross income         0.32           Gross income         0.37           Equivalised income; includes income from wages and salaries, self-employment income           Impact of government transfers and takes on market           Post-tax income         0.37           Final income         0.37           Final income         NA           Post-tax income plus benefits in kind received from the state           Germany (2005)         Equivalised income           Germany (2005)         Equivalised income           Japan         0.28           Japan (2005)         Market income (Comprehensive Survey)         0.41           Disposable income (Comprehensive Survey)         0.41           Post-tax income (Redistribution Survey)         0.41           Disposable income (Redistribution Survey)         0.41           Disposable income (all households)         0.314           Market income (Redistribution Survey)         0.414           Disposable income (all households)         0.314				imputed work expenses and taxes; reflects the net
Income         Income           Original income (before taxes and benefits)         0.52         Equivalised income; includes income from occupational pensions and investment income           (2005/06)         Disposable income         0.37         Equivalised income; includes all original income plus benefits in kind received from the state           (2005/06)         Disposable income         0.37         Disposable income less direct taxes; equivalised           Post-tax income         0.37         Disposable income less direct taxes; equivalised           Final income         NA         Post-tax income plus benefits in kind received from the state           Germany         Equivalised income         0.28           Adjusted for household size and compared with UK         McClements scale: sinequality for retired households and reduces that for non-retired ones, widens gap between bottom and top deciles)           (2005)         Disposable income (Comprehensive Survey)         0.41           Disposable income (Redistribution Survey)         0.314         Comprehensive Survey of Living Conditions of the People on Headit and Weffare: excludes households ize           (2004)         Household income         0.308         Excludes one person households.           (2004)         Household income         0.308         Excludes one person households.           (2004)         Household income         0.428         Pre-tax income of				impact of government transfers and taxes on market
Original income (before taxes and benefits)         0.52         Equivalised income: includes income from occupational pensions and investment income           (2005:06)         Disposable income         0.37         Equivalised income: includes all original income plus cash benefits provided by the state           (2005:06)         Disposable income         0.33         Gross income less direct taxes; equivalised           (2005:06)         Disposable income         0.34         Gross income less direct taxes; equivalised           (2005:07)         Final income         NA         Post-tax income plus benefits in kind received from the state           (2005)         Equivalised income         0.28         Adjusted for household size and composition by the OECD equivalence scale: smaller equivalised income for one-person households, widens inequality for retired households and reduces calcompared with UK MCClements scale: smaller equivalised income for one-person households, widens inequality for retired households and reduces taxe in ord or deciles)           Japan (1999)         Market income (Comprehensive Survey)         0.314         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households ize           (2004)         Household income         0.308         Excludes one-person households           (2005)         Disposable income (Redistribution Survey)         0.417         For working-age and cledry populations; adjusted for households           (2004)         Household inc				
Original income (before taxes and benefits)         0.52         saline's, self-employment income, income from occupational pensions and investment income           UK         Gross income         0.37         Equivalised income: includes all original income plus cash benefits provided by the state           Disposable income         0.37         Disposable income less fuert taxes; equivalised           Post-tax income         0.37         Disposable income less payment of indirect taxes; equivalised           Final income         NA         Post-tax income plus benefits in kind received from the state           Germany (2005)         Equivalised income         0.28           Germany (2005)         Equivalised income         0.31           Market income (Comprehensive Survey)         0.41         Post-tax income and to deciles)           Japan (1999)         Disposable income (Comprehensive Survey)         0.314         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households income: excludes proson with income tree times larger than standard deviation: and age 13 reparate measures for working age and elderly populations; adjusted for households ize           (2004)         Household income         0.308         Excludes one-person households           (2005)         Disposable income (Redistribution Survey)         0.314         For working age and elderly populations; adjusted for households in use after 2005           (2004)				Equivalised income: includes income from wages and
UK (2005/06)         Comparison income         Occupational pensions and investment income Equivalised income includes all original income plus cash benefits provided by the state           (2005/06)         Disposable income         0.37         Equivalised income [tes direct taxes; equivalised post-tax income plus benefits in kind received from the state           (2005/06)         Final income         NA         Post-tax income plus benefits in kind received from the state           (2005/06)         Equivalised income         0.37         Adjusted for household size and composition by the OECD equivalence scale: smaller equivalised income for one-person households and reduces that for non-retired one- service scale smaller equivalised income for one-person households and reduces that for non-retired one- wideas gap between bottom and top deciles)           Japan (1999)         Market income (Comprehensive Survey)         0.41         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households ize           Japan (1999)         Market income (Redistribution Survey)         0.341         Comprehensive Survey of Living Conditions; adjusted for household size           Zond         Household income         0.308         Every on the Redistribution of noce: excludes persons with income three times larger than standard deviation; not adjusted for household size           (2004)         Household income         0.368         Admong employed households, person and farm households           (2006)         Heatisthous mousehold in size		Original income (before taxes and benefits)	0.52	salaries, self-employment income, income from
UK (2005/06)         Gross income         0.37 cash benefits provided by the state           (2005/06)         Disposable income         0.34         Gross income less duret taxes; equivalised           Post-tax income         0.37         Disposable income less payment of indirect taxes; equivalised           Final income         NA         Post-tax income plus benefits in kind received from the state           Germany (2005)         Equivalised income         0.28         Adjusted for household size and composition by the Machement scale: smaller equivalised income for one-person households, widens inequality for retired households and reduces that for non-retired ones, widens gap between bottom and top deciles)           Japan (1999)         Market income (Comprehensive Survey)         0.41         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households headed by a person under age 17; separate measures persons with income treat time stated income (Redistribution Survey)         0.472         Survey on the Redistribution of Income: excludes persons with income text time stated income from work per household size           (2004)         Household income         0.433         Adjusted for household size           Singapore (2009)         Original income         0.433         Atmog employed households, average household income from work per household income erreited households with no income erreit (e.g. retire households)           Market income (all households)         0.343         All buscholds excluding one- person				occupational pensions and investment income
UK         One of the state         Output of the state           (2005/06)         Disposable income         0.34         Gross income less direct taxes; equivalised           Post-tax income         0.37         equivalised         Disposable income less payment of indirect taxes; equivalised           Final income         NA         Post-tax income plus benefits in kind received from the state           Germany (2005)         Equivalised income         0.28         Adjusted for household size and composition by the OECD equivalence scale (compared with UK McClements scale; smaller) for retired ones, widens gap between hottom and top deciles)           germany (2005)         Market income (Comprehensive Survey)         0.41         Comprehensive Survey of Living Conditions of the People on Health and Welfare; excludes households, eaded by a person under age 17; separate measures for working-age and elderly populations; adjusted for household size           Japan (1999)         Disposable income (Redistribution Survey)         0.314         Comprehensive Survey of Living Conditions of the People on Health and Welfare; excludes household size           (2004)         Household income         0.308         Excludes one-person household size           (2004)         Household income         0.308         Excludes one-person households income earner (e.g. retire household size           (2004)         Household income         0.478         Adjusted for government henefits and taxes           <		Grossingoma	0.27	Equivalised income; includes all original income plus
(2005/06)         Disposable income         0.34         Gross income less payment of indirect taxes; equivalised           Post-tax income         0.37         Disposable income less payment of indirect taxes; equivalised           Final income         NA         Post-tax income plus benefits in kind received from the state           Germany (2005)         Equivalised income         Adjusted for household size and composition by the OECD equivalence scale (compared with UK MCClements scale: smaller equivalised income for one-person households, widens inequality for retired households and reduces that for non-retired ones, widens gap between bottom and top deciles)           Itapan (1999)         Market income (Comprehensive Survey)         0.41         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households inequality for retired household size           Itapan (1999)         Disposable income (Redistribution Survey)         0.414         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households ize           Itapan (1999)         Disposable income (Redistribution Survey)         0.414         Survey on the Redistribution of Income: excludes persons with income three times larger than standard deviation; not adjusted for household size           Itapan (2004)         Household income         0.314         Adjusted for povernment benefits and taxes           Itapan (1999)         Disposable income (Redistribution Survey)         0.412         Survey on the Redistribution of Income: excludes	UK		0.37	cash benefits provided by the state
Post-tax income         0.37 equivalised         Disposable income less payment of indirect taxes; equivalised           Final income         NA         Post-tax income plus benefits in kind received from the state           Germany (2005)         Equivalised income         0.28         Adjusted for household size and composition by the OECD equivalence scale (compared with UK McClements scale: smaller equivalised income for one-person households, widens inequality for retired households and reduces that for non-retired ones, widens gap between bottom and top deciles)           Japan (1999)         Disposable income (Comprehensive Survey)         0.41         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households headed by a person under age 17; separate measures for working-age and elderly populations; adjusted for household size           (2004)         Household income         0.304         deviation, not adjusted for household size           (2004)         Household income         0.308         Excludes one-person households           (2004)         Household income         0.308         Excludes one-person households           (2004)         Household income         0.478         Among <i>employed</i> households, average household income from work <i>per household</i> (2004)         Household income         0.478         Adjusted for government benefits and taxes           (2004)         Households         0.478         Adjusted for government benefits and taxes </td <td>(2005/06)</td> <td>Disposable income</td> <td>0.34</td> <td>Gross income less direct taxes; equivalised</td>	(2005/06)	Disposable income	0.34	Gross income less direct taxes; equivalised
Final income         NA         Post-tax income plus benefits in kind received from the state           Germany (2005)         Equivalised income         0.28         Adjusted for household size and composition by the OECD equivalence scale (compared with UK OCD equivalence scale) (compared with UK one-person households, widens inequality for retired households ize           Japan (1999)         Market income (Comprehensive Survey)         0.41         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households headed by a person hunder age 17; separate measures to moschid size           Jisposable income (Redistribution Survey)         0.314         Gowrking-age and elderly populations; adjusted for household size           (2004)         Household income         0.308         Excludes one-person households, average household isize           (2009)         Disposable income (all households)         0.314         Gowrking-age and elderly populations; adjusted for household size           (2004)         Household income         0.308         Excludes one-person households, average household isize           (2005)         Disposable income         0.473         Adjusted for mouseholds, average household isize           (2009)         Disposable income (nationwide households)         0.331         Allouseholds excluding one-person and farm households including one-person and farm houscholds; in use after		Post-tax income	0.37	Disposable income less payment of indirect taxes;
Final income         NA         Post tax income prior controls in hind received form the state           Germany (2005)         Equivalised income         Adjusted for household size and composition by the OECD equivalence scale (compared with UK MCClements scale: smaller equivalised income for one-person households, widens income for one-person households income for one-person households is person under age 17; separate measures for household size           Japan (1999)         Disposable income (Comprehensive Survey)         0.41         Comprehensive Survey of Living Conditions of the household size           Japan (1999)         Disposable income (Redistribution Survey)         0.412         Survey on the Redistribution of Income: excludes household size           (2004)         Household income         0.381         deviation; not adjusted for household size           (2004)         Disposable income         0.478         Among employed households, average household income erarer (e.g. retiree households           (2004)         Market income (all households)         0.314         Pre-tax income of all households including one-person and farm households including one-person and farm households, excluding one-person and farm households, excluding one-person and farm households.				Post-tax income plus benefits in kind received from
Germany (2005)         Equivalised income         Adjusted for household size and composition by the OCCD equivalence scale (compared with UK McClements scale: smaller equivalised income for one-person households, widens inequality for retired households and reduces that for non-retired ones, widens gap between bottom and top deciles)           Japan (1999)         Market income (Comprehensive Survey)         0.411         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households ize           Japan (1999)         Disposable income (Comprehensive Survey)         0.314         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households ize           (2004)         Household income (Redistribution Survey)         0.314         For working-age and elderly populations; adjusted for household size           Singapore (2009)         Original income         0.308         Excludes nouseholds.         Among employed households           Singapore (2009)         Disposable income         0.453         Adjusted for povernment benefits and taxes           Market income (all households)         0.314         Pre-tax income of all households including one- person and farm households, in use after 2006           Market income (all households)         0.316         After tax deductions           Disposable income (all households)         0.316         After tax deductions           Disposable income (all households)         0.316         After tax deductions		Final income	NA	the state
Germany (2005)         Equivalised income         Adjusted for household size and composition by the OECD equivalence scale (compared with UK 0.28           germany (2005)         Equivalised income         0.28           McClements scale: smaller equivalised income for one-person households, widens inequality for retired households and reduces that for non-retired ones, widens gap between bottom and top deciles)           Japan (1999)         Market income (Comprehensive Survey)         0.41           Disposable income (Comprehensive Survey)         0.314           Market income (Redistribution Survey)         0.472           Disposable income (Redistribution Survey)         0.472           Disposable income (Redistribution Survey)         0.381           Germany (2004)         Household income           Original income         0.478           Disposable income         0.478           Market income (all households)         0.344           Market income (all households)         0.348           Pre-tax income of all households; in use after 2006           Market income (all households)         0.314           Mar				
Germany (2005)         Equivalised income         0.28         OECD equivalence scale (compared with UK McClements scale: smaller equivalised income for one-person households, widens inequality for retired households and reduces that for non-retired ones, widens gap between bottom and top deciles)           Japan (1999)         Market income (Comprehensive Survey)         0.41         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households headed by a person under age 17; separate measures for working-age and elderly populations; adjusted for household size           Market income (Redistribution Survey)         0.472         Survey on the Redistribution of Income: excludes persons with income three times larger than standard deviation; not adjusted for household size           (2004)         Household income         0.308         Excludes one-person households, with no income earner (e.g. retiree households)           (2004)         Household income         0.473         Among employed households, average household income from work per households           (2004)         Households income         0.453         Adjusted for government benefits and taxes           Market income (all households)         0.348         Pre-tax income of all households, including one- person and farm households, excluding one- person and farm households,           Market income (all households)         0.314         All households, excluding one- person and farm households, exc				Adjusted for household size and composition by the
Germany (2005)Equivalised income0.28McClements scale: smaller equivalised income for one-person households, widens inequality for retired households and reduces that for non-retired dones, widens gap between bottom and top deciles)Japan (1999)Market income (Comprehensive Survey)0.41Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households headed by a person under age 17; separate measures for working-age and elderly populations; adjusted for household sizeJapan (1999)Market income (Redistribution Survey)0.472Survey on the Redistribution of Income: excludes persons with income three times larger than standard deviation; not adjusted for household size(2004)Household income0.381Excludes one-person householdsSingapore (2009)Original income0.478Among employed households, average household income from work per households with no income earner (e.g. retiree households)Korea (2008)Market income (all households)0.314All households excluding one- person and farm households, excluding one- person and farm households, excluding one- person and farm households, excluding one- person and farm				OECD equivalence scale (compared with UK
(2005)       Image: Answer in come (2005)       Image: Answer in come (2005)       Image: Answer in come (2005)         Japan (1999)       Market income (Comprehensive Survey)       0.41       Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households headed by a person under age 17; separate measures for working age and elderly populations; adjusted for household size         Market income (Comprehensive Survey)       0.314       for working age and elderly populations; adjusted for household size         Market income (Redistribution Survey)       0.472       Survey on the Redistribution of Income: excludes persons with income three times larger than standard deviation; not adjusted for household size         (2004)       Household income       0.308       Excludes one-person households         Singapore (2009)       Original income       0.478       Among employed households, average household size         Market income (all households)       0.478       Among employed households, including one-person and farm households; in use after 2006         Market income (all households)       0.348       Pre-tax income of all households; in use after 2006         Market income (all households)       0.310       After tax deductions         Disposable income (all households)       0.310       After tax deductions         Disposable income (all households)       0.310       After tax deductions         Disposable income (all households) <td>Germany</td> <td>Equivalised income</td> <td rowspan="2">0.28</td> <td>McClements scale: smaller equivalised income for</td>	Germany	Equivalised income	0.28	McClements scale: smaller equivalised income for
Image: space with the second	(2005)			one-person households, widens inequality for retired
Market income (Comprehensive Survey)         0.41         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households headed by a person under age 17; separate measures for working-age and elderly populations; adjusted for household size           (1999)         Disposable income (Comprehensive Survey)         0.314         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households headed by a person under age 17; separate measures for working-age and elderly populations; adjusted for household size           (2004)         Market income (Redistribution Survey)         0.314         Comprehensive Survey on the Redistribution of Income: excludes persons with income three times larger than standard deviation; not adjusted for household size           (2004)         Household income         0.308         Excludes one-person households           (2004)         Household income         0.308         Excludes one-person households           (2004)         Household income         0.478         Among employed households, average household income from work per households           (2009)         Disposable income (all households)         0.478         Adjusted for government benefits and taxes           Korea         Market income (nationwide households)         0.331         Aljusted for government benefits and taxes           Korea         Market income (urban households)         0.331         All households, in use after 2006           Market income (urban				households and reduces that for non-retired ones,
Market income (Comprehensive Survey)         0.41         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes households headed by a person under age 17; separate measures for working-age and elderly populations; adjusted for household size           (1999)         Market income (Redistribution Survey)         0.314         Comprehensive Survey of Living Conditions of the People on Health and Welfare: excludes household size           (2004)         Market income (Redistribution Survey)         0.472         Survey on the Redistribution of Income: excludes persons with income three times larger than standard deviation; not adjusted for household size           (2004)         Household income         0.308         Excludes one-person households           (2004)         Household income         0.478         Adjusted for powerholds, average household income from work <i>per households</i> , income earner (e.g. retiree households)           (2009)         Disposable income         0.453         Adjusted for government benefits and taxes           Market income (all households)         0.348         Pre-tax income of all households including one-person and farm households; in use after 2006           Market income (urban households)         0.316         After tax deductions           Disposable income (all households)         0.316         After tax deductions           Disposable income (urban households)         0.316         After tax deductions           Disposable income (urban hou				widens gap between bottom and top deches)
Market income (Comprehensive Survey)0.41People on Health and Welfare: excludes households headed by a person under age 17; separate measures for working-age and elderly populations; adjusted for household sizeJapan (1999)Disposable income (Comprehensive Survey)0.314Nervey on the Redistribution of Income: excludes persons with income three times larger than standard deviation; not adjusted for household size(2004)Household income0.308Excludes one-person households(2004)Household income0.308Excludes one-person households(2004)Figural income0.308Excludes one-person households(2004)Disposable income0.478Among employed households, average household income earner (e.g. retiree households)(2004)Disposable income0.453Adjusted for government benefits and taxesMarket income (all households)0.348Pre-tax income of all households including one-person and farm households, in use after 2006Market income (urban households)0.316After tax deductionsDisposable income (all households)0.316After tax deductionsDisposable income (urban households)0.316After tax deductionsDisposable income (all households)0.301After tax deductionsDisposable income (urban househo				Comprehensive Survey of Living Conditions of the
Japan (1999)       bisposable income (Comprehensive Survey)       0.314       headed by a person under age 17; separate measures for working-age and elderly populations; adjusted for household size         Market income (Redistribution Survey)       0.472       Survey on the Redistribution of Income: excludes persons with income three times larger than standard deviation; not adjusted for household size         (2004)       Household income       0.381       deviation; not adjusted for household size         (2004)       Household income       0.308       Excludes one-person households         (2004)       Household income       0.478       Among employed households, average household income from work per households         Singapore (2009)       Disposable income       0.453       Adjusted for government benefits and taxes         Market income (all households)       0.348       Pre-tax income of all households; in use after 2006         Market income (all households)       0.311       All households excluding one- person and farm households, excluding one- person and farm households         (2008)       Disposable income (all households)       0.316       After tax deductions         Disposable incom		Market income (Comprehensive Survey)	0.41	People on Health and Welfare: excludes households
Japan (1999)       Disposable income (Comprehensive Survey)       0.314       for working-age and elderly populations; adjusted for household size         Market income (Redistribution Survey)       0.472       Survey on the Redistribution of Income: excludes persons with income three times larger than standard deviation; not adjusted for household size         (2004)       Household income       0.308       Excludes one-person households         (2004)       Household income       0.308       Excludes one-person households         (2004)       Original income       0.472       Among employed households, average household income from work per household member ; i.e. excludes households with no income earner (e.g. retiree households)         Disposable income       0.453       Adjusted for government benefits and taxes         Market income (all households)       0.348       Pre-tax income of all households including one- person and farm households; in use after 2006         Market income (urban households)       0.316       After tax deductions         Disposable income (all households)       0.316       After tax deductions         Disposable income (urban households)       0.316       After tax deductions         Disposable income (urban households)       0.316       After tax deductions         Disposable income (urban households)       0.320       After tax deductions         Disposable income (urban households)				headed by a person under age 17; separate measures
(1999)       Image: Image	Japan	Disposable income (Comprehensive Survey)		for working-age and elderly populations; adjusted for
Market income (Redistribution Survey)0.472Survey on the Redistribution of income: excludes persons with income three times larger than standard deviation; not adjusted for household size(2004)Household income0.381deviation; not adjusted for households(2004)Household income0.308Excludes one-person householdsSingapore (2009)Original income0.478Among employed households, average household income from work per household member; i.e. excludes households with no income earner (e.g. retiree households)Disposable income0.453Adjusted for government benefits and taxesMarket income (all households)0.348Pre-tax income of all households; in use after 2006Market income (urban households)0.325Urban wage earners households, excluding one- person and farm householdsDisposable income (urban households)0.316After tax deductionsDisposable income (urban households)0.298After tax deductionsDisposable income (urban households)0.298After tax deductionsDisposable income (urban households)0.343By ten equal divisions of household groups for 1964- onwardsTaiwam (2003)Disposable income0.343By ten equal divisions of households for 19	(1999)			household size
Disposable income (Redistribution Survey)0.381deviation: not adjusted for household size(2004)Household income0.308Excludes one-person householdsSingapore (2009)Original income0.478Among employed households, average household income from work per household member; i.e. excludes households)Disposable income0.478Adjusted for government benefits and taxesMarket income (all households)0.348Pre-tax income of all households; in use after 2006Market income (urban households)0.331All households excluding one-person and farm households; in use after 2006Disposable income (all households)0.325Urban wage earners households, excluding one- person and farm households, excluding one- person and farm households, in use after 2006Market income (all households)0.316After tax deductionsDisposable income (all households)0.316After tax deductionsDisposable income (all households)0.316After tax deductionsDisposable income (urban households)0.301After tax deductionsDisposable income (urban households)0.301After tax deductionsDisposable income (urban households)0.301After tax deductionsDisposable income (urban households)0.328By ten equal divisions of household groups for 1964- onwards		Market income (Redistribution Survey)	0.472	Survey on the Redistribution of Income: excludes
(2004)       Household income       0.308       Excludes one-person households         Singapore (2009)       Original income       0.478       Among employed households, average household income from work per households with no income earner (e.g. retiree households)         Disposable income       0.453       Adjusted for government benefits and taxes         Market income (all households)       0.331       Pre-tax income of all households; in use after 2006         Market income (urban households)       0.331       All households excluding one-person and farm households; in use after 2006         Market income (all households)       0.325       Urban wage earners households         Disposable income (all households)       0.316       After tax deductions         Disposable income (urban households)       0.301       After tax deductions         Disposable income (urban households)       0.301       After tax deductions         Disposable income (urban households)       0.328       By ten equal divisions of households         Disposable income (urban households)       0.301       After tax deductions         Disposable income (urban households)       0.329       After tax deductions         Disposable income (urban households)       0.324       After tax deductions         Disposable income (urban households)       0.324       After tax deductions         D		Disposable income (Redistribution Survey)	0.381	deviation: not adjusted for household size
Singapore (2009)       Original income       0.478       Among employed households, average household income from work per households with no income earner (e.g. retiree households)         Disposable income       0.478       Adjusted for government benefits and taxes         Market income (all households)       0.348       Pre-tax income of all households including one-person and farm households; in use after 2006         Market income (nationwide households)       0.331       All households excluding one-person and farm households, excluding one-person and farm households, excluding one-person and farm households, in use after 2006         Market income (urban households)       0.325       Urban wage earners households, excluding one-person and farm households         Disposable income (all households)       0.316       After tax deductions         Disposable income (urban households)       0.301       After tax deductions         Disposable income (urban households)       0.298       After tax deductions         Z       Z       Taiwan (2003)       Disposable income       0.343	(2004)	Household income	0.308	Excludes one-person households
Singapore (2009)Original income $0.478$ Among employed households, average household income from work per household member; i.e. excludes households with no income earner (e.g. retiree households)Disposable income0.478Adjusted for government benefits and taxesMarket income (all households)0.453Adjusted for government benefits and taxesMarket income (all households)0.348Pre-tax income of all households; in use after 2006Market income (nationwide households)0.331All households excluding one-person and farm households; in use after 2003Market income (urban households)0.325Urban wage earners households, excluding one- person and farm householdsDisposable income (all households)0.316After tax deductionsDisposable income (urban households)0.301After tax deductionsDisposable income (urban households)0.298After tax deductionsTaiwan (2003)Disposable income0.343By ten equal divisions of household groups for 1964- 1974, and by ungrouped households for 1976 onwards				
Singapor (2009)Original income0.478income from work per household member ; i.e. excludes households with no income earner (e.g. retiree households)Disposable income0.473Adjusted for government benefits and taxesMarket income (all households)0.348Pre-tax income of all households including one- person and farm households; in use after 2006Market income (nationwide households)0.331All households excluding one- person and farm households, in use after 2006Market income (urban households)0.325Urban wage earners households, excluding one- person and farm householdsDisposable income (all households)0.316After tax deductionsDisposable income (urban households)0.310After tax deductionsDisposable income (urban households)0.301After tax deductionsDisposable income (urban households)0.328By ten equal divisions of household groups for 1964- 1974, and by ungrouped households for 1976 onwards				Among employed households, average household
(2009)       Original mediate       0.476       excludes households with no income earner (e.g. retiree households)         Disposable income       0.453       Adjusted for government benefits and taxes         Market income (all households)       0.348       Pre-tax income of all households including one-person and farm households; in use after 2006         Market income (nationwide households)       0.331       All households excluding one-person and farm households, excluding one-person and farm households, in use after 2003         Market income (urban households)       0.325       Urban wage earners households         Disposable income (all households)       0.316       After tax deductions         Disposable income (urban households)       0.301       After tax deductions         Disposable income (urban households)       0.298       After tax deductions         Disposable income (urban households)       0.298       After tax deductions         Taiwan (2003)       Disposable income       0.343       By ten equal divisions of households for 1976 onwards	Singapore	Original income	0.478	income from work per household member; i.e.
Image: constraint of the system of the sy	(2009)	Original medine	0.470	excludes households with no income earner (e.g.
Disposable income       0.453       Adjusted for government benefits and taxes         Image: Disposable income       0.353       Adjusted for government benefits and taxes         Image: Disposable income       0.348       Pre-tax income of all households including one-person and farm households; in use after 2006         Image: Disposable income (nationwide households)       0.348       Pre-tax income of all households; in use after 2006         Image: Disposable income (urban households)       0.331       All households excluding one-person and farm households, excluding one-person and farm households, excluding one-person and farm households, excluding one-person and farm households.         Disposable income (urban households)       0.325       Urban wage earners households.         Disposable income (all households)       0.316       After tax deductions         Disposable income (urban households)       0.301       After tax deductions         Disposable income (urban households)       0.298       After tax deductions         Disposable income       0.343       By ten equal divisions of household groups for 1964-1974, and by ungrouped households for 1976 onwards	(200))		0.470	retiree households)
Korea (2008)Market income (all households)0.348Pre-tax income of all households including one- person and farm households; in use after 2006Market income (nationwide households)0.331All households excluding one-person and farm households; in use after 2003Market income (urban households)0.325Urban wage earners households, excluding one- person and farm householdsDisposable income (all households)0.316After tax deductionsDisposable income (urban households)0.301After tax deductionsDisposable income (urban households)0.301After tax deductionsDisposable income (urban households)0.298After tax deductionsTaiwan (2003)Disposable income0.343By ten equal divisions of household groups for 1964- 1974, and by ungrouped households for 1976 onwards		Disposable income	0.453	Adjusted for government benefits and taxes
Market income (all households)0.348Iterat income of all households including one-person and farm households; in use after 2006Market income (nationwide households)0.331All households excluding one-person and farm households; in use after 2003Market income (urban households)0.325Urban wage earners households, excluding one-person and farm householdsDisposable income (all households)0.316After tax deductionsDisposable income (urban households)0.301After tax deductionsDisposable income (urban households)0.301After tax deductionsDisposable income (urban households)0.298After tax deductionsDisposable income (urban households)0.298After tax deductionsDisposable income0.343By ten equal divisions of household groups for 1964-1974, and by ungrouped households for 1976 onwards				Pre-tax income of all households including one
Korea       Market income (nationwide households)       0.331       All households excluding one-person and farm households; in use after 2003         Market income (urban households)       0.325       Urban wage earners households, excluding one-person and farm households; in use after 2003         Disposable income (all households)       0.316       After tax deductions         Disposable income (urban households)       0.301       After tax deductions         Disposable income (urban households)       0.301       After tax deductions         Disposable income (urban households)       0.298       After tax deductions         Disposable income       2          Taiwan (2003)       Disposable income       0.343		Market income (all households)	0.348	person and farm households: in use after 2006
Korea       (2008)       0.331       households; in use after 2003         Market income (urban households)       0.325       Urban wage earners households, excluding one-person and farm households         Disposable income (all households)       0.316       After tax deductions         Disposable income (urban households)       0.301       After tax deductions         Disposable income (urban households)       0.298       After tax deductions         Disposable income (urban households)       0.298       After tax deductions         Disposable income (urban households)       0.301       After tax deductions         Disposable income (urban households)       0.298       After tax deductions         Disposable income       0       0.343       By ten equal divisions of household groups for 1964-1974, and by ungrouped households for 1976 onwards			0.001	All households excluding one-person and farm
Korea       (2008)       Market income (urban households)       0.325       Urban wage earners households, excluding one-person and farm households         Disposable income (all households)       0.316       After tax deductions         Disposable income (nationwide households)       0.301       After tax deductions         Disposable income (urban households)       0.298       After tax deductions         Disposable income (urban households)       0.298       After tax deductions         Taiwan (2003)       Disposable income       0.343       By ten equal divisions of households for 1976 onwards	Korea	Market income (nationwide households)	0.331	households; in use after 2003
Taiwan     Disposable income     Output     Output     Output     Disposable income     Output     Output     Disposable income     Output     Output     Disposable income     Output     Outpu		Market income (urban households)	0.325	Urban wage earners households, excluding one-
Disposable income (all households)       0.316       After tax deductions         Disposable income (nationwide households)       0.301       After tax deductions         Disposable income (urban households)       0.298       After tax deductions         Disposable income (urban households)       0.298       After tax deductions         Disposable income       2       2         Taiwan (2003)       Disposable income       0.343       By ten equal divisions of household groups for 1964-1974, and by ungrouped households for 1976 onwards	(2000)		0.525	person and farm households
Disposable income (nationwide nousenolds)     0.301     After tax deductions       Disposable income (urban households)     0.298     After tax deductions       Taiwan (2003)     Disposable income     0.343     By ten equal divisions of household groups for 1964- 1974, and by ungrouped households for 1976 onwards		Disposable income (all households)	0.316	After tax deductions
Disposable income     0.278     After tax deductions       2     2       Taiwan (2003)     Disposable income     0.343       By ten equal divisions of household groups for 1964- 1974, and by ungrouped households for 1976 onwards		Disposable income (itationwide nousenoids)	0.301	After tax deductions
Taiwan (2003)Disposable incomeDisposable incomeBy ten equal divisions of household groups for 1964- 1974, and by ungrouped households for 1976 onwards		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0.290	
1 alwan (2003)Disposable income0.3431974, and by ungrouped households for 1976 onwards	T. :	2		By ten equal divisions of household groups for 1964-
(2003) onwards	$1 a_1 wan$	Disposable income	0.343	1974, and by ungrouped households for 1976
	(2003)			onwards

### Table 1 : Definitions of income and household for Gini measures across economies

The table highlights how difficult it is to compare the Gini coefficient across economies given there are so many combinations of approaches to measuring those. In fact, income used in compiling the Gini coefficient consists of several components – wages, capital gains, social security benefits, cash or noncash, means- or non-means-tested transfer – and different economies may include one and exclude another, which further complicates any comparison. Even as we try to distill the effects of income redistribution and household composition by considering these separately, there are still caveats in that the adjustments are not comparable. Notably, excluding the economically inactive households seems to reduce the Gini coefficient more compared with the per capita measure, as illustrated by London and Tokyo whose Gini coefficients are artificially low.

## Hong Kong's Gini coefficient, while on the high side, is not the highest among comparable advanced or newly industrialized city economies

To make the data more comparable, we separate the Gini coefficients into two groups – one based on overall household income and the other on standardised income (per capita or adjusted for household composition through certain exclusions). The pre- and post-tax and social transfer Gini coefficients for selected economies are listed in *Table 2*. Hong Kong's Gini coefficient, while on the high side, is not the highest among comparable advanced or newly industrialized city economies. On a pre-redistribution and household adjustment basis, the Gini coefficient in Hong Kong was 0.533, lower than New York City (0.542), Washington DC (0.540), and Los Angeles (0.538), though slightly higher than San Francisco (0.514) and Shenzhen (0.49). On a post-redistribution and household adjustment basis, Singapore has a higher Gini coefficient (0.453) even after excluding retiree households. It should be noted that Hong Kong's post-adjustment Gini coefficient only accounts for household size but still includes retiree households, tycoons as well as employees, and hence is not strictly comparable to those of Singapore, Tokyo and London.

Economies	Year	Pre-tax and social transfer	Post-tax and social transfer	% change
(Big economies)				
US	2004	0.496	0.400	-19%
China	2007	0.458	NA	NA
Korea	2008	0.348	0.316	-9%
Taiwan	2003	NA	0.343	NA
(City or state economies	)			
New York City	2008	0.542	NA	NA
Washington DC	2008	0.540	NA	NA
Los Angeles	2008	0.538	NA	NA
Hong Kong	2006	0.533	0.475	-11%
San Francisco	2008	0.514	NA	NA
New York State	2008	0.503	NA	NA
Shenzhen	2005	0.49	0.36	-27%
California	2008	0.473	NA	NA
New Jersey	2008	0.462	NA	NA
Guangdong Province	2007	0.422	NA	NA
Singapore		NA	NA	NA

ble 2 : Pre- and post-tax and transfer Gini coefficients for selected economies	and transfer Gini coefficients for selected econom	nies
(a) Gini coefficients compiled based on overall household income	ts compiled based on overall household income	

#### (b) With household adjustments (per capita, weightings or exclusions)

Economies	Year	Pre-tax and social transfer	Post-tax and social transfer	% change	<u>Remarks</u>
(Big economies)					
UK	2006	0.52	0.34	-35%	Equivalised* (McClements scale)
Japan	2005	0.44	0.32	-27%	Equivalised* (OECD scale)
Korea	2008	0.331	0.301	-9%	Excludes one-person and farm households
Germany	2005	0.51	0.30	-41%	Equivalised* (OECD scale)
(City or state economies	) )				
Singapore	2009	0.478	0.453	-5%	Per capita; employed households only
Hong Kong	2006	0.502	0.427	-15%	Per capita
London	2005	NA	0.324	NA	London employees only
Seoul	2003	0.41	NA	NA	Per capita
Tokyo	2003	0.33	NA	NA	Workers' households

*Gini data for Germany and Japan are sourced from OECD; for Seoul from Kim, E. and Kim, K. (2003); for Tokyo and pre-tax Gini for Shenzhen from UN Habitat (2008) State of the World's Cities.* 

(\*) Standardised to account for the fact that households of differing size or composition will require different incomes to achieve the same standard of living, i.e. per capita concept adjusted for household composition.

#### Most economies have seen their Gini coefficients increase over time

Why is Hong Kong's Gini coefficient so high? From *Chart 1*, the Gini coefficient, whether adjusted for household composition or not, tends to rise over time for most economies, except for Germany and London. This suggests that rising income disparity is not a phenomenon unique to Hong Kong, and the income gap will tend to widen as economic development advances. The differences over roughly a decade ago are similar in magnitude, at around 0.01-0.03 percentage point, while China saw a larger increase of 0.05 percentage point. Conceivably, fast-growing economies will tend to see a sharper rise in the Gini coefficient while undergoing rapid development, as some people may enjoy the fruits of economic development first. On the other hand, the decline of the Gini coefficient in Germany and London may be partly obscured by adjustments to the Gini measure (equivalised and employees only), but it may also be explained by the strong welfare tradition and labour unions in the European economies.



#### Chart 1 : Rising income disparity is a common phenomenon (a) Gini coefficients compiled based on overall household income\*

(\*) All are pre-tax and transfer Gini measures except for Taiwan. (^) All households market income Gini figure for Korea, data available from 2006 only.



#### (b) Gini coefficients based on standardised income adjusted for household size and composition<sup>@</sup>

(@) All are post-tax and transfer Gini measures except for Tokyo and Seoul which are not specified. (#) The urban households Gini data are used for Korea for longer time series. Data are from national sources, and for Germany from Eurofound; for Tokyo from UN University (2000) and UN Habitat (2008); for Seoul from Kim, E. and Kim, K. (2003).

# The increase of Hong Kong's Gini coefficient may be attributed to demographic changes, business cycle factors and economic restructuring

Apart from the global trend of rising income gap over time, for Hong Kong specifically, the increase of the Gini coefficient may be attributed to three main factors – demographic changes, business cycle factors, and economic restructuring.

#### (I) Demographic changes

In Hong Kong, the Gini coefficient based on original household income increased from 0.518 in 1996 to 0.533 in 2006. Adjusted for taxation only, the increase between 1996 and 2006 narrowed to 0.13. Netting out further the effect of social transfer, the Gini coefficient rose from 0.466 to 0.475, only a 0.009 increase over the same period. This suggests that income redistribution is very effective in reducing the income gap in Hong Kong. If the post-tax post-social transfer Gini coefficient is further adjusted for household size to arrive at the per capita measure, the Gini coefficient actually remained unchanged between 1996 and 2006, at 0.427, implying that the increase of the post-tax and social transfer Gini coefficient was mainly attributed to demographic changes, i.e. an aging population and a corresponding decrease in household size.

As discussed earlier on, Hong Kong's adjusted Gini coefficient measure only filters out the effect of change in household size, but does not distinguish between employed and retired households, unlike many other advanced economies, e.g. Singapore (employed households only), Japan and Korea (excluding one-person households, many of which being elderly ones), Europe and the UK (equivalisation). Such adjustment is logical, considering the Gini coefficient as a relevant gauge of in-work poverty should not be distorted by non-working households receiving little or no income. The prevalent adjustment practice of other economies also suggests that this limitation of the Gini coefficient is recognised worldwide and needs to be remedied in order to distill out the distortion from retiree households, especially in view of the aging issue commonly faced by advanced economies nowadays.

C&SD has compiled an alternative set of Gini coefficient data based on monthly household income from work of employed households only, and the picture is very different (*Table 3*). Understandably, the Gini coefficient based on working income of employed households was significantly lower than that compiled from all households under different income concepts in all the survey years. Notably, the Gini coefficient based on employed households was lower in 2006 compared with 1996 under all income concepts, while netting the effect of falling household size, it decreased gradually from 1996 to 2001 to 2006 on a per capita basis, indicating a narrowing income gap among employed households over the period. Moreover, the Gini coefficient based on employed households' original income was lower than the all households' per capita original income measure in 2001 and 2006, confirming our earlier observation that including only employed households tends to produce a more favourable Gini coefficient than adjusting for household size, again pointing to the growing effect from non-employed households in recent years.

### Table 3 : Hong Kong's Gini coefficient (GC) compiled based on all households versus employed households only across time

	GC based on monthly household income from all domestic households			GC based on monthly household income from work <sup>(1)</sup> of employed households <sup>(2)</sup>		
	1996	2001	2006	1996	2001	2006
Based on original household income	0.518	0.525	0.533	0.514	0.489	0.498
Based on post-tax household income	0.508	0.515	0.521	0.455	0.443	0.446
Based on post-tax post-social transfer household income	0.466	0.47	0.475	0.415	0.402	0.405
Based on per capita original household income	0.493	0.491	0.502	0.548	0.529	0.484
Based on per capita post-tax post-social transfer household income	0.427	0.421	0.427	0.402	0.389	0.378

Notes: (1) Monthly household income from work refers to the sum of main and secondary earning of working persons (excluding domestic helpers) in households.

The effect of demographic changes on income disparity is even more apparent in *Chart 2*. From *Chart 2a*, it is apparent that the average monthly household income disparity widened from 1997 to 2009, as incomes for the bottom deciles fell while those for the top ones rose. However, if we look at average monthly employment earnings of full-time employees only, average employment earnings actually improved across decile groups from 1997 to 2009, although the extent of increase is larger for the higher decile groups (*Chart 2b*). The difference, again, is due to household composition change. It can be seen from *Chart 3* that between 1997 and 2009, the portion of elderly and economically inactive households among the bottom three decile groups surged by 18 percentage points on average, whereas the top income decile groups were predominantly economically active households, whose portion even increased over time. Overall, the portion of elderly and economically inactive households rose from 1997 to 2009 by roughly 4 percentage points.

In fact, the increase in low-income households over the past decade or so was due in large part to a surge in elderly and economically inactive households receiving little or no income earnings. To illustrate, among households in the lowest income decile, elderly households and non-elderly economically inactive households took up 70.3% in 1997; the proportion increased to 79.9% in 2009 (*Table 4*).

<sup>(2)</sup> Employed households refer to households consisting of at least one employed person (excluding foreign domestic helpers).



Chart 2: (a) Average monthly household income by decile in real terms, 1997-2009

Notes: (1) Excluding foreign domestic helpers; (2) 1st-5th deciles are deflated by CPI(A); 6th-8th deciles by CPI(B); 9th-10th deciles by CPI(C); overall average by CCPI. Source: GHS, C&SD







#### Chart 3 : Household composition change by decile, between 1997 and 2009

Elderly households Non-elderly economically inactive households Non-elderly economically active households

Table 4 : Economically active/inactive and elderly households in the lowest decile

		Num	ber of	Elderly		% of elderly
	Number of	Non-elderly households		households +		households +
	elderly households	Economically inactive	Economically active	non-elderly economically inactive households	Total number of households	non-elderly economically inactive households
	(a)	(b)	( <b>c</b> )	( <b>d</b> )= ( <b>a</b> ) + ( <b>b</b> )	(e)=(a)+(b)+(c)	(f)=(d)/(e)
1997	103661	31565	57057	135226	192283	70.3%
2000	122444	36489	44772	158933	203705	78.0%
2003	117864	33245	60296	151109	211405	71.5%
2006	133231	43550	45305	176781	222086	79.6%
2007	136269	46032	42410	182301	224711	81.1%
2008	136785	49580	41378	186365	227742	81.8%
2009	139056	45698	46405	184754	231160	79.9%

It is not difficult to understand the rising income gap, in light of the differential change in household composition across decile groups over time. It also highlights how ignoring household composition and merely adjusting for household size in compiling the Gini coefficient is insufficient and will likely distort the true income disparity picture.

#### (II) Business cycle factors

From *Chart 2*, both the average monthly household income and employment earnings roughly follow the ups and downs of the economy, dipping visibly in the aftermath of the Asian Financial Crisis (AFC) in 1997-1998, the global economic downturn in 2001 and Severe Acute Respiratory Syndrome (SARS) in 2003, and more recently the global financial crisis in 2008-2009. In fact, business cycle is another relevant factor affecting income disparity, firstly as more people may lose their jobs and fall into the low-income group in a downturn and also as those with work suffer from the differential impact of recession on earnings.

For the non-elderly economically active households in the bottom decile, the main reason they fall into the low-income group is unemployment and underemployment. Specifically, amongst the lowest decile households in 2009, 47% were unemployed and 10% were As can be seen from Chart 4, the number of unemployed and underemployed. underemployed in these low-income households follows closely the economic cycle, rising generally in the six years after 1997 during a down-cycle (AFC, global downturn and SARS), and improving on an up-cycle in the ensuing five years after mid-2003. Many people in the grassroots were able to climb out of the low-income group and the number of low-income economically active households earning less than HK\$4,000 a month fell The economic upturn between mid-2003 and mid-2008 created nearly 130,000 markedly. jobs for low-skilled workers and brought down the number of unemployed in these low-income households by 63%. The number of unemployed in the bottom decile rose again from 2008 to 2009 with the onset of recession caused by the global financial crisis.



Chart 4 : Composition of economically active persons in the first decile of households

Economic recession also takes a toll on earnings income among the full-time employed, especially for those who are older, less educated and lesser skilled. As a result, the low-income group is often the most vulnerable to pay reduction. From *Chart 2*, the monthly employment earnings of full time employees in real terms dropped more visibly for the lowest three decile groups during the recession periods. The earnings of these people recovered during the upturn in 2004-2008, basically returning to their 1997 peaks by around 2006 and were around 5% higher by 2009. This suggests that economic growth is the primary defence against earnings decline and falling into the poverty trap. And in the era of globalisation where jobs and capital can migrate, skill and knowledge upgrading is very important in ensuring that our workforce can enjoy the fruits of economic prosperity.

#### (III) Economic restructuring

Rising income disparity may also be explained by a change in economic structure. Here, an international comparison may be useful in understanding how the income gap may change in relation to certain economic structures or features. Specifically, it is found that the Gini coefficient tends to be higher for high output and service-oriented city economies. In the case of Hong Kong, the gradual shift towards a high value-added, knowledge-based and service-oriented economy and sustained increase in productivity over time point to a tendency of widening income gap. To align with the adjustment approach of most other economies under comparison, the per capita employed households Gini measures are used as Hong Kong's standardised income in the following comparisons.

#### Gini coefficient tends to be higher for high income and city economies

From *Table 2*, it can be seen that city economies tend to have higher Gini coefficients. For example, Washington DC, New York City, Los Angeles and San Francisco all have higher Gini coefficients than the US; and Shenzhen has a higher Gini coefficient than China. Also, from *Chart 5*, economies with high per capita GDP tend to have higher Gini coefficients. Conceivably, advanced economies with higher per capita output are more oriented towards high value-added sectors, which may lead to a bifurcation of labour skills and greater income disparity. London and Tokyo are outliers since their Gini coefficients are artificially depressed due to the use of exclusion or equivalisation.









#### Gini coefficient tends to be higher for service-oriented economies

*Chart 6,* which plots the relationship between the Gini coefficient and GDP share in services, seems to suggest a post-industrial stage of development is associated with greater income disparity, conceivably due to the knowledge-intensive nature of the service industries. This rings an echo of Inglehart's World Values Survey that a post-industrial society is likely to see a shift of values towards post-modern ones that call for equality and happiness. It also tallies with the observation that high income economies tend to have greater income disparity, since a large service sector is usually associated with higher per capita income, due to the high value-added nature of the service industries.



Chart 6 : Gini coefficient tends to be higher for economies with higher GDP share in services (a) Gini coefficients compiled based on overall household income





#### Social redistribution can bridge the income gap, but at a cost of greater tax burden

To see the effect of income redistribution, the Gini coefficients are plotted against the tax burden (*Chart 7*). Although there is limitation in cross-sectional comparison due to the use of different Gini definitions, it still points to one clear message, i.e. income redistribution is an effective tool in reducing income disparity, but the cost is higher tax burden, as illustrated by the US, the UK and Germany, which see a very large reduction in their Gini coefficients after tax and transfer, but very high tax burden as well (total government tax revenue at 25-40% of GDP). This suggests a trade-off between equity and efficiency, and involves policy choice in choosing one over the other.



### Chart 7(a) Income redistribution and social transfer can lower Gini coefficient significantly, but this would generally imply higher tax burden on households and corporates\*

(b) The higher the tax burden, the greater the equalising effect and the sharper fall in the Gini coefficient after adjustment



(\*) Gini coefficients are adjusted for household composition except for the US. Government tax revenue data are sourced from OECD for US, UK, Germany, Japan and Korea; from official sources for Hong Kong and Singapore.

# Income distribution is but one criterion for M-shaped society; education and training plays a key role in enhancing social mobility

The above seems to point to a greater income disparity with economic advancement (higher per capita income; larger service sector). Does this imply that economic development will lead to "M-shaped" societies? According to Dr. Kenichi Ohmea, who proposed the idea of an M-shaped society, there are other indicators than income distribution to gauge the extent or existence of M-shaped societies. These include a rising number of temporary workers, a wider income divergence across industries, and weakening upward income mobility. Hong Kong's case will not fit into an M-shaped society by these standards, according to a study by the C&SD in 2006<sup>1</sup>. Specifically, between 1996 and 2006, Hong Kong saw an uptrend in the number of part-time workers mainly due to female workers who voluntarily choose to work part-time to support their family; the difference between the highest and lowest median real employment income narrowed across the major economic sectors; and labour earnings were generally upwardly mobile.

A further study by the University of Hong Kong points out that upward earnings mobility actually improved in the more recent years<sup>2</sup>. Between 1998 and 2008, more than half of workers experienced earnings mobility, with 33% moving to a higher earnings quintile and only 20% moving down. The study also finds that intergenerational poverty is not as high as perceived. Among those children whose fathers were in the lowest earnings quintile group, 82% of sons and 74% of daughters managed to move up the earnings ladder. Finally, education, training and retraining is found to be an effective defence against downward earnings mobility. Between 1998 and 2008, 24% of men with a primary or below education moved down the earnings ladder, compared to only 10% for those with degree or above education; the result for women is similar. It is fair to note that a higher education tend to reach the top earnings quintile more quickly, after which they may not be able to advance much further. Education is also a gateway to associate professional occupations and the primary route by which children can acquire new skills and break out of their parents' occupational mould.

#### **Concluding remarks**

While Hong Kong's Gini coefficient appears rather high at first glance, the Gini coefficient should not be taken at face value since it is subject to a host of adjustments which makes direct comparison across economies problematic. The major sources of difference are adjustments for income redistribution, household size and composition. We attempted to filter out these effects by considering the different measures separately, and found that the Gini coefficient tends to be higher for city economies, and for high income, service-based economies.

<sup>&</sup>lt;sup>1</sup> C&SD 2006 Population By-census, Thematic Report: Household Income Distribution in HK, Appendix B: Has Hong Kong Developed into an "M-shaped Society"?

<sup>&</sup>lt;sup>2</sup> James P. Vere (2009) Special Topic Enquiry on Earnings Mobility.

In the case of Hong Kong, the relatively high Gini coefficient may be attributed to demographic changes (specifically, an aging population and decreasing household size), business cycle factors (unemployment and impact on earnings), and economic restructuring (shift towards a service-oriented, high value-added and knowledge-based economy, and generally widening trend with economic advancement over time). To further filter out the distortion from household composition change, and using a more relevant gauge of in-work income disparity that focuses on employed households only, Hong Kong actually saw a narrowing of income gap among employed households between 1996 and 2006.

# *Three-pronged approach to fighting poverty: income redistribution, education and training, and economic development*

These major causes of income disparity point to some directions in alleviating poverty and mitigating the income gap. For the demographic factor, a social safety net may be provided to the elderly and to those in need. It is found that taxation and social transfer can significantly reduce the Gini coefficient, suggesting that income redistribution is very effective in bridging the income gap, albeit at a cost of heavier tax burden. In fact, the Government devotes more than one third of recurrent public expenditure to wealth, housing, and social welfare to improve the livelihood of people and improve the social fabric. Income redistribution is also relevant during economic downturns, when the Government acts as automatic stabiliser and provides counter-cyclical relief measures in the short term to help the vulnerable group tide over difficult times.

To address the impact on income disparity due to economic restructuring, education, training and retraining is a useful tool in enhancing upward social mobility and reducing intergenerational poverty, as it can better equip our labour force to counter the bifurcation of skills brought about by economic advancement. Indeed, the Government attaches great importance to education and training in improving the employability and safeguarding the income of our labour force in the medium term. Education takes up the largest share of recurrent public expenditure, amounting to over 20%. Last but not least, the best way to alleviate poverty is to promote economic growth and development, as this is the key to creating employment and securing income.

References:

European Foundation for the Improvement of Living and Working Conditions (Eurofound), http://www.eurofound.europa.eu/areas/qualityoflife/eurlife/index.php?template=3&radioindi c=158&idDomain=3.

Guangdong Social Sciences, http://www.gdass.gov.cn/news\_view.jsp?cat\_id=1003569&news\_id=4823.

Guangdong Statistics Information Net, www.gdstats.gov.cn.

Hong Kong C&SD, 2006 Population By-census, Thematic Report: Household Income Distribution in HK.

Japan Statistics Bureau (2004), *National Survey of Family Income and Expenditure*, http://www.stat.go.jp/english/data/zensho/2004/hutari/gaiyo18.htm.

Kim, E. and Kim, K. (2003), Impacts of development of large cities on economic growth and income distribution in Korea: A multiregional CGE Model.

Mayor of London (2008), *Patterns of low pay in London*, http://www.london.gov.uk/mayor/economic\_unit/docs/current-issues-note-22.pdf.

National Bureau of Statistics of China, http://www.stats.gov.cn/was40/gjtjj\_detail.jsp?searchword=%BB%F9%C4%E1%CF%B5%C4%FD&channelid=75004&record=1.

OECD StatExtracts, http://stats.oecd.org/Index.aspx?QueryId=11112&QueryType=View.

OECD Working Paper No.556 (2007), Income Inequality, Poverty and Social Spending in Japan.

Shenzhen Statistics Bureau, http://www.rsj.sz.gov.cn/xxzl/msjflzbtx/200702/t20070214\_733209.htm.

Singapore Department of Statistics,

http://www.news.gov.sg/public/sgpc/en/media\_releases/agencies/singstat/press\_release/P-20 100219-1/AttachmentPar/0/file/2009%20hhinc%20OP%20-%20Press%20Release.pdf; http://www.singstat.gov.sg/pubn/papers/economy/op-s16.pdf.

Singapore Department of Statistics (2002), *Income Distribution and Inequality Measures in Singapore*.

Statistics Korea, http://kostat.go.kr/nso\_main/nsoMainAction.do?method=main&catgrp=eng2009.

Taiwan National Statistics, http://www.stat.gov.tw/public/Attachment/41141183071.doc.

UK Office for National Statistics, *Gini coefficients for the distribution of income at each stage of the tax-benefit system and P90/P10 and P75/P251 ratios for disposable income for all households*, 1983 to 2005/062,

http://www.statistics.gov.uk/StatBase/Expodata/Spreadsheets/D9638.xls.

UK Office for National Statistics (2008), *Increase in income inequality: The effects of taxes and benefits on household income 2006/07*, http://www.statistics.gov.uk/pdfdir/taxbhi0608.pdf.

UK Office for National Statistics (2010), Using the OECD equivalence scale in taxes and benefits analysis.

UN Habitat (2008), State of the World's Cities.

UN University, World Institute for Development Economics Research (2000).

US Census Bureau (2006), *The Effects of Government Taxes and Transfers on Income and Poverty: 2004*, http://www.census.gov/hhes/www/poverty/effect2004/effectofgovtandt2004.pdf.

US Census Bureau, *Gini Ratios for Households, by Race and Hispanic Origin of Householder: 1967 to 2008*, http://www.census.gov/hhes/www/income/histinc/h04.xls.

US Census Bureau, *Household Income Inequality Measures Based on the ACS Data:* 2000-2005, http://www.census.gov/hhes/www/income/reports.html.

US Census Bureau, 2008 American Community Survey, http://factfinder.census.gov/servlet/DatasetMainPageServlet?\_program=ACS&\_submenuId =&\_lang=en&\_ds\_name=ACS\_2008\_1YR\_G00\_&ts=.

Vere, James P (2009), Special Topic Enquiry on Earnings Mobility.