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### Explaining the Child Poverty Outcomes of Japan, South Korea and Taiwan

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## Abstract

Previous research has identified a distinctive East Asian model of income protection for disadvantaged children. In the wealthier East Asian societies, relative poverty rates are similar or lower than those in many Western European societies, but income transfers are low and market incomes (including private transfers) are relatively high. This chapter compares the family circumstances and household 'income packages' of disadvantaged children in Japan, Taiwan and (South) Korea with those in selected other OECD societies using data from the Luxembourg Income Study and national data sets.

We look at poverty rates and the incomes of the poorest one-fifth of children in each society. In cross-national context, poverty rates are generally low in these three countries, despite low social transfers. Demographic factors (low fertility, small family size and parental age) play a significant role in this outcome - though they are also constraints in their own right. High rates of parental employment are also important.

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# 1. Introduction

Previous research has identified a distinctive East Asian model of income protection for disadvantaged families. In the wealthier East Asian societies, relative poverty rates for families with children are similar or lower than those of many Western European societies, but income transfers are low and market incomes and private transfers are relatively high in disadvantaged families.

How do these societies succeed in moderating child poverty in the face of limited state income support? What are the broader implications of these responses? This chapter examines these issues by comparing the family circumstances and household ‘income packages’ of disadvantaged children in Japan, Taiwan and South Korea (hereafter Korea) with those in selected other OECD societies. We draw upon data from the Luxembourg Income Study as well as national data sets.

Despite providing very low levels of social transfers to the families of the most disadvantaged children, our results confirm previous results showing favourable child poverty outcomes in these three societies.<sup>1</sup> Korea and Taiwan, in particular, have poverty rates below that of most Western countries. While our preferred dataset for Japan shows a higher poverty rate than that used in previous cross-national research, it is still not high, and is near the Western average.

A large part of our explanation for these results stems from demographic patterns. Total fertility is low (especially in Korea and Taiwan), family size is small, parents are older and lone parent families uncommon. Controlling for these influences, Korea and Taiwan would have Western-typical poverty rates, and Japan one of the higher poverty rates in Western countries. In the light of low social transfers, high parental employment rates are also important for ensuring that poverty rates are not even higher.

# 2. Background

Distinguishing them from the various models in Western welfare states, the welfare regimes of East Asia have been described as ‘productivist’ (Holliday, 2000) and ‘developmental’ (Johnson, 1982). Under this model, government resources are directed to economic development rather than social expenditure, families are assumed to provide strong support for their members regardless of co-residence status, there are strong gender disparities in employment, and labour movements (trade unions) are weak. The key role of social insurance in these systems is to enhance productivity by supporting the workforce critical to economic development (Holliday, 2000, Kim, 2015).

Lee and Ku (2007), on the other hand, group Korea and Taiwan together as archetypical developmental welfare states, but place Japan as intermediate between this model and the corporatist (continental Western European) welfare state regime. More recently, some scholars have argued that Taiwan, with its rapid welfare expansion in the past decades, has transformed into a liberal welfare regime (Willis, 2014), whereas Korea is transformed into a social-democratic welfare regime (Kuhnle, 2019). Most recently, Yang and Kühner (2000) characterized Korea as having a balanced development between productive and protective welfare measures, Japan as having more emphasis on productivist measures, and Taiwan as having a stronger focus on protective measures.

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<sup>1</sup> For example, as shown in the LIS database (eg Bradbury et al 2020) and in OECD reports (eg Pisu, 2012).

## **Korea**

In Korea, child poverty, measured using the poverty threshold of 50% of the national median income, has been declining from 10.1 per cent in 2006 to 6.7 per cent in 2016 (Yeo, 2018). A new national dataset shows its continuing downward trend thereafter. Available data also indicates that child poverty stayed at a level much lower than the poverty of the whole population (Korea Institute for Health and Social Affairs, 2020). The low child poverty is happening while public transfer income to families with children is minimal. Social transfers to families with children were virtually non-existent until the early 2000s, Social assistance programs have applied very stringent eligibility rules to families with working-age adults. The government has provided a modest amount of child allowance for families with children aged 7 or less since 2018 (see Chapters 2 and 4, this volume). With public transfer income still low, a few other factors explain this low level of child poverty.

First, there are more employed adults in families with children than in childless families or in all families; an increasing number of households with children have dual earners. As a result, families with children have a high level of earned income and a low level of poverty (Yeo et al., 2016). This low child poverty may be partly accounted for by selection into marriage. Those who are more likely to form and maintain couple families with children may be economically more secure (Brown, 2010). In Korea, young male adults with secure jobs are more likely to get married (Yoon, 2012). This marital selection is more important in Korea because alternative routes to family formation such as cohabitation and non-marital births have not been socially accepted.

Second, there are only a small number of single-parent families in Korea. They do not receive any significant benefit from public transfer programs and thus are at a high risk of poverty. In addition, single-parent families are mainly formed through divorce or the death of a spouse, rather than from unmarried births (Kim et al., 2019). Unmarried births have been strongly stigmatized and mostly avoided by choosing abortion. If unmarried women give live births, many of them give their babies up for adoption.

Associated with these demographic patterns is low fertility. The total fertility rate in Korea has been low, and is dropping further - from 1.31 in 2001 to 0.92 in 2019 (Statistics Korea, 2020). Potentially, a smaller family size may increase parental labor force participation by reducing child care burden. It can also decrease child poverty by reducing family consumption needs.

## **Taiwan**

In Taiwan, families with extremely low income qualify for public assistance, but this covers only 2.5% of the population (Ministry of Health and Welfare [Taiwan], 2021 ). Recent estimates from Chiang and Chiang (2018) found that 6% of children experienced persistent poverty throughout three waves of the Taiwan Birth Cohort Study (2.5-4 years), using an absolute child poverty line of parents earning below around \$1,000 USD (\$30,000 New Taiwan Dollars ) per month. Relatedly, Leu and colleagues (2016) measured deprivation from a multidimensional perspective (capturing the dimensions of diet, clothing, medical care, education, recreation, environment, economic and social relationships, and housing), and they found that 5% of children in Taiwan experienced deprivation (Leu, Chen, & Chen, 2016). Child poverty is associated with chronic unemployment, parents' low-education levels, family members with disability, foreign born mothers, single parent or grand-parent-headed families, and residence in rural areas (Chiang & Chiang, 2018; Liou, 2017). Income-poor children are more likely to lack necessities such as internet, leisure activities, local services, childcare options, and safe neighborhood (Liou, 2017). Beyond income poverty, deprivation and social exclusion are associated with large number of children and caregivers' low level of education (Leu, Chen, & Chen, 2016). Public transfers in Taiwan

have been shown to reduce the poverty rate, but only to a limited extent (Wang, Cai, & Gao, 2021; Wang & Chen, 2012).

## ***Japan***

Shizume et al. (2020) distinguish Japan from the other East Asian states by pointing out Japan's welfare state is characterized by "male-breadwinner-based social insurance with status-dependent programmes, and families and occupational welfare playing a greater role" (Shizume et al. 2020: 117). From the viewpoint of poverty prevention, Japan's welfare system assumes the presence of a male household head with Japanese style employment (i.e. lifelong, seniority based wage employment in large corporations) through which security for the entire family is provided. Thus, households with children, with the notable exception of single-mother households, are never regarded as needing poverty reduction schemes. Even to this day, the cash transfer for households with children is limited to fairly small child benefit payments, whose purpose is to increase the fertility rate, not poverty reduction. The public assistance program is marginalized, and social insurance premiums are regressive in nature, which result often in negative net transfers for poor households with children.

For single-mother households, public transfers are somewhat larger than two-parent households, yet are nowhere near the level of Western states (See Table 3: The Maximum amount is about 405 2017USD/month for a household with 1 child). Thus, the labor market participation rate of single mothers is high (at about 81.8%, Ministry of Health, Labour and Welfare, 2017).

Such a welfare model could be effective if the (assumed) "Japanese style employment" was assured to every worker. But this is not the case, with the resulting welfare system two-tiered, those in "Japanese style employment" protection, typically male workers in large corporations and their families, versus the rest (Abe 2003; Aspalter 2006). The "rest" portion is increasing its share. In 1995, the Japan Business Federation announced that businesses would no longer provide lifelong employment to all their employees, and since then, the share of "informal" workers has been increasing. The latest figure now stands at 54.4% of the female labor force and 22.1% of the male labor force (Statistics Bureau, 2021). The poverty rate of children has also been increasing (MHLW, 2020). Thus, the income composition of households containing the poorest 20% of children is heavily determined by wages, as in other East Asian societies, but without a large contribution from self-employment income as in Korea nor relatively large private transfers as in Taiwan. In sum, Japan's "productivist" welfare model is increasingly showing its weakness as Japan's employment system and family composition shift toward those of Western nations.

## ***Cross-national comparisons***

The LIS data that we use here have been used extensively to examine the income poverty of children and families in a comparative perspective. Recent examples include Gornick and Nell (2019), who group countries by "welfare regime" (somewhat loosely defined) but do not include East Asian societies in their review, neither do Cai and Smeeding (2019). Hakovirta et al. (2020) examine especially the importance of transfers with a special focus on lone-parent families. Bradbury et al (2019) and Smeeding (2018) focus, in part, on the role of parental work.

While the non-Asian countries we study tend to be included, the East Asian societies that we focus on are only rarely covered in this recent research on child poverty. One exception is Bradbury et al (2019), who identify Japan, South Korea and Taiwan as societies where children in the lowest fifth do relatively well but where their well-being is not much supported by government transfers - although somewhat more for children in lone-mother as opposed

to two-parent households. Viewed in this light, it is clear that our East Asian societies are quite distinct from the other “regimes” that have been studied.

These patterns, and the results that we will show here, are broadly consistent with the welfare state typology described above. Japan shares some traits with Korea and Taiwan, such as a low share of households without employment earnings and consequently high share of wages in the income composition of the poorest children, as well as a low share of lone-parent families even among the poorest children.

As well as having distinct welfare systems/arrangements, East Asian societies also have distinct patterns of partnering, marriage and fertility. They attach stigma to non-marital birth and have an extremely low nonmarital childbearing rate (1.5%-4% in Japan, Korea and Taiwan vs. 36.3% in OECD societies, Raymo et al., 2015). Studies suggest that trends toward less and later marriage are more pronounced in East Asia than in the West (Jones, 2017; Raymo et al., 2015). This marital pattern may contribute to a more selective population entering into the “potential parent” pool and lower fertility rate (e.g., men with insecure income and employment or not having housing are deterrents for entering into marriage; Jones, 2017).

Indeed, Korea and Taiwan, in particular, do have much lower fertility rates than Western societies. Freika and colleagues (2010) indicate that the fertility rates in East Asian societies changed drastically in the past 60 years, going from having an average of 5-7 children per family to having the lowest fertility rates in the world. This has been explained by the growing tensions from rapid social and economic changes in the absence of changes in family expectation and obligations in East Asia (Raymo et al., 2015).

This is reflected in recent (World Bank, 2019) fertility rate statistics where Korea and Taiwan have extremely low fertility rates (0.9 and 1.1 respectively). Of our Western comparison societies, most have rates between 1.5 (Canada) and 1.7 (US), though Italy is also relatively low at 1.3. Japan (1.4) has a similar fertility rate to Italy.

### **3. Data and methods**

Our focus is on understanding the drivers of child poverty in Japan, Korea and Taiwan. We contrast this group of East Asian societies with seven non-Asian societies, Australia, Canada, Germany, Italy, Norway, the UK and the US. These are chosen to be representative of the Social democratic (Norway), Northern European (Germany), Mediterranean (Italy), and Liberal (Australia, Canada, UK and US) welfare states.

We use household survey data from the Luxembourg Income Study (LIS, 2021) supplemented by data from the Japanese Comprehensive Survey of Living Conditions (CSLC) and the Korean Household Income and Expenditure Survey (HIES).

The LIS database is a collection of harmonized datasets on individual and household income, labour market, and demographic variables from rich and middle income countries spanning (in most cases) the period from the early 1980s up to the present. We present results for the most recent data included in LIS (covering years between 2013 and 2018). See [www.lisdatacenter.org](http://www.lisdatacenter.org) for information on the original data sources, sample sizes and other characteristics of the national data sets.

The Korean HIES is the non-rural component of the composite dataset used in LIS, conducted by Statistics Korea. We use this in one of our tables to examine the employment patterns of couples (not available in the combined LIS file).

The Japanese CSLC is a survey conducted by the Ministry of Health, Labor and Welfare.

Compared to the LIS data (based on the Japan Household Panel Survey), it has a larger sample size and is a cross-sectional rather than panel survey - and so not subject to any attrition bias. The CLSC is the data used by the Japanese government for the calculation of poverty rates (MHLW 2020) and thus our results using this data are more comparable to those used in the national poverty debate. For all these reasons, it is our preferred dataset. It generally provides estimates of child poverty outcomes that are less favourable than those from the panel survey dataset used in LIS. For comparison, we show (in Table 1) some Japanese results using both the LIS and the CLSC data, but in other tables we show the CLSC data only (LIS results available from the authors on request).

We measure the living standard of children, defined as persons who are under 18 years old, by the disposable income, adjusted for household needs, of the household they live in. Disposable income consists of all cash and near-cash income, including wages and salaries, self-employment as well as capital income, plus public and private transfers, less direct taxes and social security contributions. We convert all incomes to year 2017 prices and further to international dollars by using purchasing power parity (PPP) adjusted exchange rates. These stem from the OECD except for Taiwan, where the source is the IMF.<sup>2</sup>

We adjust the household total disposable income by a so-called “Citro-Michael” equivalence scale (Citro and Michael (eds) 1995) where we first adjust each child to be equal to 0.75 adults and then let the elasticity of such “adults” be 0.8:

$$\text{Equiv scale} = (n_{\text{adults}} + 0.75 \cdot n_{\text{children}})^{0.8}$$

This equivalence scale, which results in economies of scale that lie close to the so-called ‘old OECD’ scale, distinguishes between how much a child “costs” in terms of an adult (75% of an adult, in this parameterization) and the increase in needs when household size grows by an adult (0.8, in this case). This scale assumes large families to have somewhat greater needs than other commonly used scales such as the modified (or ‘new’) OECD scale or the simpler square root scale.<sup>3</sup>

We use several measures to capture the living standards of the least well-off children. ‘Relative poverty’ is defined as the share of children whose household income is less than 50% of the national overall median adjusted disposable household income. This indicator is often used in international comparisons (REFs), and shows the extent to which some children have incomes that are well below the norm for their society. We also show the mean adjusted household income of the least well off one-fifth of children, and this relative to the overall median. The latter index is strongly correlated with the relative poverty measure, but can also be easily decomposed into the share of income from different sources (see Bradbury, Jantti and Lindahl, 2019).

## 4. Results

### 4.1 Poverty outcomes

Several different poverty indicators are shown in Table 1. The relative poverty rate is the percentage of children living in families with equivalised income below half the median

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<sup>2</sup> Further details available from the authors.

<sup>3</sup> The old OECD scale scores the first adult as 1, subsequent adults as 0.7 and children as 0.5. So a couple with two children has a scale of 2.7. Our scale yields 2.72 in this situation. The modified (or ‘new’) OECD scale, scales additional adults as 0.5 and children as 0.3 (so C+2 = 2.1). The OECD in recent publications have mainly used the square root scale, the square root of the number of people, with C+2 = 2.0. See <https://www.oecd.org/els/soc/OECD-Note-EquivalenceScales.pdf>.

income in their society. Korea and Taiwan stand out as having particularly low child poverty rates - similar to those in the Nordic welfare state of Norway.

The Japanese poverty rate, however, differs across our two datasets. In the LIS data the rate is similar to that in Korea and Taiwan, but in the CSLC data, Japanese child poverty is higher and similar to that in Australia, Canada, Germany and the UK - though still substantially lower than in the US and Italy. This difference is not likely to be because the CSLC data is collected five years later than the survey used in LIS. Official Japanese poverty calculations using the CSLC data in both years actually show a decline in poverty over this period.<sup>4</sup> In the remaining tables, we only report the CSLC data for Japan.

Table 1 also shows the mean household income of the poorest fifth of children, and this relative to the population median. In real terms, Italy and Norway stand out as having lowest and highest bottom-fifth incomes respectively. Korea and Taiwan have incomes similar to those in the other Western nations. Japanese real incomes are substantially lower in our preferred, CSLC, dataset.

As expected, the mean of the bottom fifth relative to the population median is strongly (inversely) correlated with the relative poverty rate. The poorest fifth of children in Korea and Taiwan have around half the equivalised household income of the average person in their society, similar to Norway. In the US this ratio is only one-third, and in Italy less than a quarter. Again, the Japanese outcome is different in the two datasets, with the relative incomes of the bottom fifth in the CSLC dataset higher than in the US and Italy, but lower than the other Western societies.

One explanation for the favourable relative child poverty outcomes in East Asia stems from the recent rapid income growth in these societies, and the consequent relatively higher incomes of working age, compared to retired, families. In Table 1 we show the median equivalised household incomes of children relative to the median for all households. In all three East Asian societies (for Japan, in the CSLC data), the median child income is very close to the overall median - whereas for the Western societies, children have a median of only around 76 to 90 per cent of the overall median. Expressing this the other way round, the relatively high incomes of the households without children (especially the elderly) in the West, leads to a higher than otherwise poverty line and is thus part of the reason for the higher child relative poverty rates there.<sup>5</sup>

Another reason why we might find higher median equivalised incomes among children in East Asia is their smaller family size. We address this more directly in Section 4.5 below.

However, irrespective of the cause of these median income differences across demographic groups, we can assess the impact of the differences by examining a poverty line set at half the median household income of children (rather than the whole population). Though we don't adopt this as our primary measure below, this is a defensible poverty measurement strategy in its own right, as it indicates the extent to which poor children can match the living standards of the median child, rather than the median member of the society.

The last column of Table 1 shows such an alternative poverty rate definition. In Korea, Taiwan and Japan, poverty rates do not change much, while in the Western societies, they are significantly lower. Nonetheless, under this child median benchmark, Korea and Taiwan

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<sup>4</sup> From 16.3% in 2012 to 13.5% in 2018 (Ministry of Health, Labour and Welfare, 2019).

<sup>5</sup> This general pattern is sensitive to the choice of the equivalence scale. A scale that assumed children's needs were lower (eg the square root scale) would imply higher median incomes for children compared to the overall median. However, this would change this ratio in the same direction for all countries, and so have a limited impact on these findings.



still have poverty rates similar to the best performing Western societies. However, for Japan, the relative performance is not so favourable. If compared to the median child, poverty rates in Japan would be 14.8 per cent, just below the rates for the US (15.2) and Italy (16.7).

**Table 1: Child poverty indicators**

		Relative poverty rate (% below half population median)	Poorest 20% of children		Child median / overall median	'Child relative' poverty rate (% below half child median)
			Mean household disposable income (equiv 2017 USD PPP)	Mean relative to population median		
Japan	2013	8.3	9,900	0.48	0.89	5.8
Japan (CSLC)	2018	13.9	6,800	0.37	0.97	14.8
South Korea	2016	7.1	10,100	0.51	0.99	6.9
Taiwan	2016	6.9	10,800	0.52	0.94	5.3
Australia	2014	11.0	11,900	0.45	0.90	7.9
Canada	2017	14.8	11,500	0.42	0.85	9.3
Germany	2016	14.5	10,300	0.41	0.86	9.1
Italy	2016	27.8	3,700	0.22	0.76	16.7
Norway	2013	7.9	15,000	0.50	0.89	5.2
United Kingdom	2017	15.9	9,000	0.42	0.81	6.3
United States	2018	21.9	9,500	0.33	0.84	15.2

## 4.2 Income sources

How are these relatively favourable poverty outcomes achieved, given the weak systems of social protection in East Asia? The beginning of the answer lies in the other sources of income of the households of poor children.

Figure 1 shows the sources of income for the most disadvantaged fifth of children in each of our societies. Here, equivalised disposable income is disaggregated into the shares from wages, self-employment, capital income (including private pensions), private transfers, public transfer payments, and income taxes and social insurance contributions. Private transfers include payments such as mandated child support, but also other forms of (usually regular) income transfers between households.<sup>6</sup> These components, including the negative taxes, add up to 100% for each society.

Standing out is the low share of income from social transfers in the East Asian societies; only 7 per cent in Korea up to 21 per cent in Japan. This is similar to what we find in Italy, but much lower than the other Western societies, where around half the household income of the poorest fifth of children comes from social transfers (44% in the US to 60% in Canada).

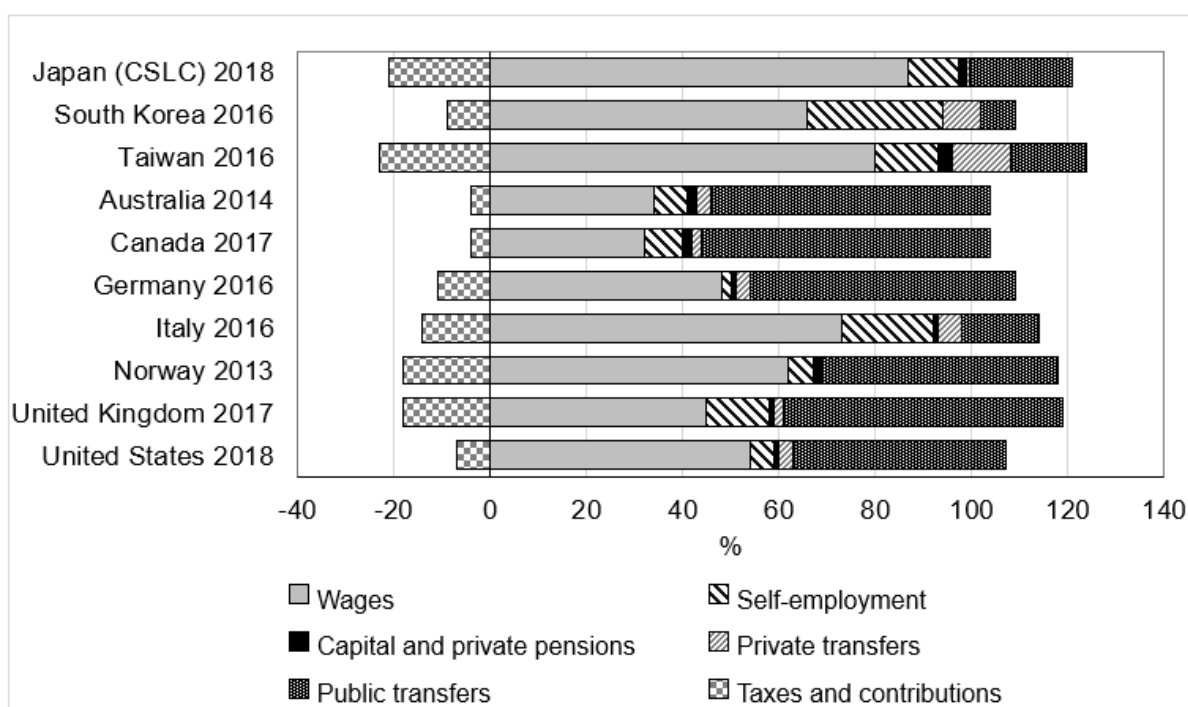
These low social transfers in East Asia are matched by a high share of income from wages and self-employment. Together, these earnings add up to almost 100 per cent of disposable income, with the other income sources being offset by taxes and social insurance

<sup>6</sup> It is quite possible that these private transfers are under-recorded in all countries, but we do not have any evidence on this.

contributions. Self-employment income is particularly important in Korea.<sup>7</sup>

Finally, the households of the poorest children in both Taiwan and Korea receive significant income from other households (12 and 8% respectively). This is particularly relevant for lone parent families. It includes child support and similar payments, but also other (“voluntary”) private transfers. More detailed analysis shows bottom-fifth children in lone parent families receiving 3, 40 and 22 per cent of their income from private transfers in Japan, Korea and Taiwan respectively. Italian children in lone parent families also received a high share of income from private transfers (28%), but otherwise this was 10 per cent or less in the other Western societies.

**Figure 1: Poorest fifth of children: Shares of household income from different sources**



### 4.3 Household composition and poverty

Lone parent households are relatively unusual in East Asia. In Japan and Taiwan, only 6-7 per cent of children live in lone parent households (Table 2). Korea has 11 per cent, which is similar to Italy (9%) and Canada (10%). The other Western societies all have higher fractions, up to 21 per cent in the UK.

The family definitions here are based on the national survey definitions of household head. Households comprising an unpartnered head with children are defined as lone parents, and two parent households comprise a partnered head with children. For this family type definition, the children can be of any age. Households with any members other than head, partner and children are coded as ‘other’ household types. This includes three-generation

<sup>7</sup> The importance of income from self-employment in Korea can be confirmed by comparing statistics on the share of the self-employed among the labor force. According to the OECD (2021), the share is 24.6% for Korea in 2019. This is among the highest in advanced economies, next to Greece (31.9%). While the share is 15.2% for European union countries on average, it is 10.0% for Japan.

and other more complicated household structures.

These larger families are most common in Taiwan, where almost half (44%) of children live in this family type. Though many of these are three-generation households, usually it is one of the parents of the child who are classed as the household head – and whose labour force status we describe below.<sup>8</sup> This high level of intergenerational co-residence has been reported in prior studies where it was attributed to the dominant role of traditional patrilineal and collectivistic values in Taiwan (Chu, Xie & Yu, 2011; Nauck & Ren, 2018; Peng et al., 2021; Yasuda et al., 2011).

In all our societies, poverty rates are lowest in couple-headed households and much higher in lone parent households. The low prevalence of lone parent households in Korea and Taiwan could thus be one reason for their relatively low overall child poverty rate. In Table 2 we calculate counter-factual poverty rates to investigate the impact of family type on poverty rates. The last column of Table 2 shows the poverty rates that would apply if each family type maintained its poverty rate, but the distribution of family types matched that of the UK - the country with the highest proportion of lone parent households. Despite their lower prevalence of lone parent families, in Korea and Taiwan, these counter-factual poverty rates do not differ much from the actual rates. This is because the poverty rates among the larger 'other' family types are relatively high in Korea and Taiwan. So increasing the weight on lone parents while decreasing it on 'other' households has an offsetting effect. For Japan, however, this counter-factual calculation would increase poverty rates, because lone mother families there do have very high poverty rates.

While the distinctive family structure in Korea and Taiwan does not explain much of their difference in overall poverty rates with Western countries, these family structures might nonetheless arise partly in response to income transfer policy. In particular, without significant parental or child transfers, unmarried (or unpartnered) women might be less likely to have children and lone mothers might need to live with others (e.g. their parents) in order to have sufficient economic resources. This is possibly also an explanation for the relatively large fraction of 'other' households in the US (18%).

As well, this data suggests that moving into larger households, while possibly a necessary economic response, is not entirely successful at increasing living standards. In Korea especially, but also Taiwan and Japan, poverty rates remain relatively high in these larger 'other' households.<sup>9</sup>

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<sup>8</sup> In the LIS data, only 5% of all Taiwanese children are coded as a grandchild of the household head.

<sup>9</sup> Similar patterns apply for the mean income of bottom fifth children in these different family types (not shown here).

**Table 2: Poverty rates by family type**

	Family type distribution					Poverty rate by family type					Counterfactual, with UK family distribution
	Lone	Lone	Couple	Other	All	Lone	Lone	Couple	Other	All	
	M %	F %	%	%	%	M %	F %	%	%	%	
Japan (CSLC)	5.9	0.6	88.1	5.4	100.0	52.1	17.8	10.2	32.7	13.9	19.3
South Korea	9.1	1.5	79.7	9.8	100.0	14.4	14.6	4.8	17.7	7.1	7.4
Taiwan	4.9	1.9	49.1	44.1	100.0	9.6	11.5	5.0	8.5	6.9	6.1
Australia	12.4	1.5	76.2	9.9	100.0	24.6	21.1	8.5	11.9	11.0	11.9
Canada	8.2	2.0	76.4	13.5	100.0	39.5	14.8	12.7	11.9	14.8	17.7
Germany	13.0	1.6	78.3	7.2	100.0	28.5	18.6	11.7	19.0	14.5	15.3
Italy	7.9	1.3	82.0	8.8	100.0	42.5	33.4	24.8	41.7	27.8	29.1
Norway	12.5	2.4	79.0	6.1	100.0	20.3	7.6	6.0	7.3	7.9	8.8
United Kingdom	18.8	1.7	74.9	4.6	100.0	22.9	32.7	13.6	18.1	15.9	15.9
United States	13.8	2.3	65.9	17.9	100.0	43.9	17.8	15.2	29.9	21.9	21.3

#### 4.4 Employment patterns

The high levels of wage and self-employment income in Japan, Korea and Taiwan, are reflected in their employment rates. Table 3 shows the extent of 'joblessness' - the proportion of children living in households with no income from earning (wages or self-employment) - for the poorest fifth of children in each country.

Here the distinctiveness of these East Asian countries is even more apparent. Overall, their joblessness rates are all below 8 per cent. Norway, with its strong employment supports, is next at 16 per cent, followed by the US, with its emphasis on in-work benefits, at 20 per cent. The other countries all have higher rates of worklessness, ranging up to 42 per cent in Australia.

Joblessness is also low for lone mothers, especially in Japan and Taiwan. About a quarter of Korean lone mothers are jobless, but this is still lower than in any of the Western countries, where jobless rates range up to 72 per cent in Australia.

**Table 3: Poorest fifth of children: Percent with no household earnings**

		Houshold type				
		Lone	Lone	Couple	Other	All
		Mother %	Father %	%	%	%
Japan (CSLC)	2018	5.9	0.0	6.0	16.1	7.2
South Korea	2016	26.2	11.6	3.1	12.2	7.5
Taiwan	2016	9.9	35.0	3.3	6.8	6.5
Australia	2014	72.0	79.7	29.2	34.9	42.3
Canada	2017	48.9	57.9	22.1	18.2	27.4
Germany	2016	47.4	45.9	17.2	23.9	26.4
Italy	2016	59.0	26.8	32.2	42.0	36.1
Norway	2013	30.4	19.2	9.4	12.7	16.3
United Kingdom	2017	65.5	43.8	21.6	27.3	34.5
United States	2018	35.9	41.6	8.8	22.6	20.5

Note: Earnings includes income from wages or self-employment

Another distinctive feature of the Japanese and Taiwanese labour markets is a possible ‘added worker’ effect in low income families (though we don’t have data on the time sequence of spouse employment). Table 4 shows (dependent) employment patterns for partnered parents of the poorest one-fifth of children. The first column shows fathers’ employment. Consistent with the previous results, this is high in the East Asian countries, though less distinctive than in the previous table because we are not able to include self-employment here.

Mothers’ employment is also strong, and Taiwan stands out with most mothers working full-time (data unavailable for Korea). When the father has no wage income, mothers’ employment increases in Japan and Taiwan (though is essentially unchanged in Korea). This ‘added worker’ effect reflects the need for families to maintain their income when the ‘primary’ earner is not working.

In the Western countries, this effect is less pronounced, possibly because income support makes this response less necessary, because income is partly maintained when one member loses employment. While this effect also occurs in Germany and the US, in Canada and Norway, we actually find the opposite effect. This could be due to assortative mating, with partners having similar labour market skills.

**Table 4: Poorest fifth of children in couple households: Parental employment patterns**

	Fathers	Mothers			Mothers - when father has no wage			Mothers - difference in % with wage
	With wage income	Part-time wage	Full-time wage	Total with wage	Part-time wage	Full-time wage	Total with wage	
	%	%	%	%	%	%	%	% points
Japan(CSLC)	51	20	24	50	25	29	61	11
South Korea (non farm)	62			30			27	-3
Taiwan	75	6	21	27	2	45	47	20
Australia	43	13	7	21	12	8	21	0
Canada	50	22	9	31	15	6	22	-9
Germany	62			35			46	11
Italy	44	3	3	6	5	5	10	4
Norway	74		0				48	-10
United Kingdom	48	17	9	26	14	14	28	2
United States	69	21	11	31	25	19	44	12

Note: Employment does not include self-employment in this table. The Korean data is for non-farm households and is from the Korean HIES (which is one component of the LIS data for Korea).

## 4.5 Fertility and household size

These three East Asian societies, along with Italy, have particularly low fertility rates compared to other Western societies. By 2019, the total fertility rate was down to 0.92 in Korea and 1.10 in Taiwan. Japan’s rate was higher, at 1.36, slightly higher than that of Italy at 1.27, while the other Western countries ranged between 1.47 and 1.71.<sup>10</sup> As discussed above, these low fertility rates have been an ongoing source of policy concern.

One hypothesis is that low fertility might be a response to the low levels of public support for families with children. We cannot test this hypothesis directly with our data, but can examine

<sup>10</sup> Source: World Bank database.

a related effect - that low fertility might directly reduce child poverty rates.

Low fertility can manifest in adults not becoming parents at all, a delay in childbearing, or parents having fewer children. The latter two effects are visible in our samples of children, and both might affect poverty rates. Very young parents tend to have lower incomes, and fewer siblings means that a given household income will imply a higher equivalised household income (higher living standard).

Table 5 shows the age distribution of the household head<sup>11</sup> and the average number of children in our data. In Japan, Korea and Taiwan (and Italy), the average household has 1.9-2.0 children. The (other) Western countries have more, ranging from 2.1 in Germany and Norway, up to 2.4 in the US.

At the same time, parents are older in East Asia. Very few are aged under 30 (less than 3%), while this is much more prevalent in the West (6-12%). Again, Italy has a similar pattern to our East Asian countries at 2.6 per cent. Similarly, around 30 per cent of parents are aged under 40 in East Asia, while in the West this ranges from 39 to 51 per cent (excepting Italy).

**Table 5: Family size and parental age**

		Household head aged			Number of children
		< 30	< 40	< 50	in household
		%	%	%	Mean
Japan (CSLC)	2018	2.8	27.7	74.7	2.0
South Korea	2016	1.3	31.9	88.8	1.9
Taiwan	2016	2.0	30.9	77.8	1.9
Australia	2014	7.8	44.7	86.6	2.2
Canada	2017	7.3	45.4	86.2	2.3
Germany	2016	6.9	41.8	85.2	2.1
Italy	2016	2.6	24.7	74.0	1.9
Norway	2013	5.7	39.4	85.3	2.1
United Kingdom	2017	10.5	49.0	86.0	2.2
United States	2018	11.9	50.6	82.6	2.4

Are these age and family size differences part of the explanation for the relatively low poverty rates in East Asia? We test this with linear probability (OLS) regressions of poverty status as a function of the age of the household head and the number of children in the household. This is undertaken for the whole population and then separately for lone mother and couple households.<sup>12</sup>

Table 6 shows the mean poverty rate for our regression sample in the first data column, and the rates for lone mother and couple households in columns 3 and 5.<sup>13</sup> The other columns then show the predicted poverty rates when the head is aged in their 40s and the household has two children (first for the whole sample, and then just for lone mother and couple

<sup>11</sup> The head of the household will usually be one of the child's parents. In the multi-generational households it might sometimes be their grandparent or another adult (though this is infrequent). We are also able to estimate the results in this section for Japan using a direct measure of the parent's age. The results are very similar (available from authors on request).

<sup>12</sup> No separate results are presented for the lone father and 'other' household types (though they are included in the overall results).

<sup>13</sup> These vary slightly from those in Table 2 because of data revisions.

households).<sup>14</sup>

Because the 40-49 age group is close to the average age in the three East Asian societies, the predicted values are generally close to the relative poverty rates. However, in the Western countries, where the average parent is younger (again with the exception of Italy), the poverty rates predicted if parents were older (and family size slightly smaller) are substantially lower than the actual poverty rates in these countries. These broad patterns apply for both the overall regression and the results separately for lone mother and couple households.

Setting aside Italy, where poverty rates are high under all scenarios, these results support the hypothesis that some of the explanation for the lower poverty rates in Korea and Taiwan, in particular, arises from these different family characteristics. Looking at the 'all households' results, the gap between their poverty rates (around 7%) and the other Western countries (8-22%) diminishes significantly when holding head age and family size constant (to 6% vs 5-14%). If we also control for family structure by just looking at couple households, the gap is reduced even further; now to 4-5% vs 3-8% (last column). Nonetheless, Korea and Taiwan remain at the low end of the Western range of poverty estimates.

Japan similarly has a poverty rate which, while higher than Korea and Taiwan, changes little when holding age constant and family size constant. The overall Japanese poverty rate is just below that of Canada, Germany and the UK (first column). Holding parental age and family size constant would decrease poverty in the Western countries, so that Japan would now have the second highest poverty rate, after Italy (second column). A similar pattern appears within couple-headed households (last column). Summarising, we could say that these demographic patterns are associated with Japan having a mid-ranked poverty outcome rather than a relatively disappointing (i.e high) poverty outcome.

**Table 6. Relative child poverty controlling for head age, family size and family type**

		All households		Lone mother households		Couple households	
		Overall relative poverty rate	Predicted rate when head is aged 40-49 and household has 2 children	Relative poverty rate	Predicted rate when head is aged 40-49 and household has 2 children	Relative poverty rate	Predicted rate when head is aged 40-49 and household has 2 children
Japan (CSLC)	2018	13.9	15.5	52.1	62.2	10.2	10.6
South Korea	2016	7.1	5.8	14.4	16.2	4.8	4.4
Taiwan	2016	6.9	6.1	9.6	8.5	5.0	4.8
Australia	2014	11.0	7.9	24.6	17.6	8.5	5.9
Canada	2017	14.8	8.6	39.5	27.1	12.7	6.9
Germany	2016	15.1	9.0	32.4	19.4	11.5	7.2
Italy	2016	27.8	25.3	42.5	45.2	24.8	22.5
Norway	2013	7.9	4.7	20.3	17.5	6.0	3.1
United Kingdom	2017	15.2	9.6	24.4	13.9	12.3	8.3
United States	2018	21.9	13.4	43.9	34.0	15.2	8.1

Note: Predicted rate is from linear probability (OLS) regressions of relative poverty as a function of number of children and age distribution of household head (as per Table 5). This is estimated across the whole sample (first panel), lone mother households (second panel) and couple households (third panel).

<sup>14</sup> Note that the poverty line is not changed when calculating these predicted rates. So, this prediction does not account for any change in the poverty line (half median income) if national demographic patterns were to be held at counterfactual values.



## 5. Summary and discussion

Despite very low levels of social transfers, Korea and Taiwan have relative child poverty levels similar to those of societies like Norway with high welfare expenditures. Moreover, while our preferred data for Japan does not suggest the same anti-poverty success, it nonetheless has very low social transfers accompanied by child poverty outcomes similar to the average Western society. Why are these East Asian societies so successful in preventing child poverty?

In many respects, patterns in these East Asian societies are similar to those in Italy - our exemplar of the Mediterranean welfare state model. Among the poorest families, social transfers are low, the share of income from employment and especially self-employment is high, there are substantial private transfers and lone parent families are less common. But these East Asian societies do not experience the corresponding high child poverty rates and low real incomes of Italian families with children.<sup>15</sup>

Part of the answer lies in the fact that much of the older population in East Asia missed out on the strong income growth in these societies in the past half-century.<sup>16</sup> (See chapter 10 for the discussion that high economic growth in the region may have left older people behind). This means that the median family income of children is about the same as the overall median income in these three societies - while in the Western societies children have lower incomes after adjusting for household size. The smaller family size in East Asian countries also contributes to this.<sup>17</sup>

If we use the median household income of children as the reference for the poverty line, child poverty rates in most Western societies are reduced, while they change little in these East Asian societies. Nonetheless, even using this alternative reference point, child poverty rates in Korea and Taiwan are still at the lower end of the Western distribution. For Japan, child poverty relative to the child median income is at the higher end, but still below that in Italy and the US.

The immediate driver of these favourable poverty outcomes is the amount of income other than social transfers - especially earnings - received by families with children. Among the poorest fifth of children in our East Asian societies, the share of income from earnings is around 100 per cent of disposable income, with the remaining income sources offset by taxes and social insurance contributions. This is much higher than in Western societies (other than Italy). Private income transfers are also important in East Asia.

These income shares are reflected in the labour force participation of parents. Among the poorest fifth of children in Japan, Korea and Taiwan, almost all their households have at least some earnings and only 6-7 per cent have none. In contrast, of the poorest fifth in Western societies, between 16 and 42 per cent have no earnings.

Among couples, there is also a strong possible 'added worker' effect in Taiwan and Japan. Where the father in low income households has no wage income, mothers in these societies are much more likely to be employed. The low levels of social transfers for non-employed

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<sup>15</sup> Poverty outcomes for Italian families with children deteriorated significantly after the 2009 economic crisis (Bradbury, Jantti and Lindahl, 2019).

<sup>16</sup> Based on the income distribution information in LIS. Note, however, that patterns of wealth inequality can differ substantially from income inequality (Pfeffer & Waitkus, 2020; Skopek, Buchholz, & Blossfeld, 2014).

<sup>17</sup> An alternative equivalence scale which reduced the assumed needs of larger households could change this result - but would tend to shift all countries in the same direction.



fathers may be the reason for this.

Employment rates are also high in the other family types in the three East Asian societies, though lone parenthood is less prevalent in these societies (and Italy). However, even though lone parents tend to have higher poverty rates, this lower prevalence contributes little to the lower overall poverty rate in Korea and Taiwan. If we were to apply the UK family type distribution to these societies their poverty rate hardly changes - because poverty rates are also high in the 'other', three-generation, households which are more common there. For Japan, on the other hand, poverty rates among lone mother families is very high, and so if they had the UK family type distribution their poverty rate would be almost as high as in the US.

As well as having different family structures, the three East Asian societies have very different fertility patterns to the Western model (though again, Italy is similar to the East Asian pattern). Fertility rates are much lower (well below replacement), family sizes are smaller and few parents are very young. Both the family size and parental age difference would be expected to reduce poverty rates (the former reduces consumption needs, while the latter is associated with higher earnings). If we control for family size and parental age, we find that the gap between Korean and Taiwanese versus Western poverty rates narrows significantly, and narrows further again if we control for family composition. Nonetheless, even after controlling for these factors, poverty rates in Korea and Taiwan remain at the lower end of Western estimates.

Japan has an observed poverty rate that is towards the middle of the Western range. However, our model predicts that if family size, parental age and household composition were the same across countries, the Japanese rate would be the second-highest in our sample - slightly higher than both the US and UK, though still well below that of Italy.

## **6. Conclusion**

Despite low social transfers, Korea and Taiwan have been very successful in preventing poverty, while Japanese poverty outcomes (based on our preferred dataset) have been similar to that of many Western societies. These outcome differences provide a challenge to the concept of a single 'East Asian' welfare regime.

Nonetheless, these three societies do share some common characteristics contributing to their relative poverty success: families with children have benefited from recent economic growth more than the older population, parents have high employment levels, lone parent families are uncommon (but multi-generation families are more common and have high poverty levels), and private between-household income transfers are more common.

In addition, the demographics of parenthood are very different in these societies. The extremely low fertility in Korea and Taiwan, and the relatively low fertility in Japan are associated with smaller family size and later child rearing. Both these factors reduce poverty. If family size, parental age and family composition were the same in all countries, Korea and Taiwan would have middling rather than low poverty rates, and Japan would have one of the highest poverty rates in our sample. Without the high employment rates in these three countries, poverty would be much higher again.

We speculate that the low levels of social transfers in these three countries are important drivers of these responses. In the absence of adequate social benefits, having a first child, or subsequent children, is economically risky. While the broader family can, and does, provide some support, it is not surprising that fertility is extremely low (especially in Korea and Taiwan) and that prospective parents are more likely to delay child rearing until their incomes are higher and have fewer children overall. Similarly, lone parenthood is infrequent

and multi-generational families are common.

These parental demographic characteristics are probably part of the reason for the high employment levels of parents in these three East Asian countries. Selection into parenthood itself, where only people with strong earning potential become parents, might also be a factor, though we have not investigated this.

So, while these three countries have been able to maintain child poverty rates at low or modest rates - despite low levels of social protection - our results suggest that this has had other impacts on parental, and possibly child, well-being. Access to parenthood is restricted, lone parent families have restricted options and employment is essentially a requirement of parenthood.

Recent policy initiatives in all three societies have generally been developed through the lens of increasing fertility. In Korea, all children under age 6 have become eligible for free childcare services since 2012. The Child Tax Credit, a refundable tax credit for children, has been separated from the Earned Income Tax Credit since 2015. In addition, the Child Allowance introduced in 2018 provides a monthly cash payment for all children under age 7. Although the effects of these programs on fertility are controversial, there is evidence that the programs increase income and reduce child poverty (Kang, 2020). Their further expansion will work as safeguards against child poverty.

Taiwan also recently announced the expansion of its child benefits and childcare benefits to families with children aged six years or below to boost the fertility rate and support families raising young children. The benefit amounts will increase with the number of children at home, ranging between US\$167 and 383 for each child. Most families with children will qualify for some subsidies. In addition, the government also enacted a policy on Savings Accounts for Future Education and Development of Children and Youth in 2018. This savings account allows children and youths receiving public assistance to save money to a child development account and receive matched savings to finance higher education, entrepreneurship, and vocational training (Cheng, 2019). (See chapter 7 on financial difficulties among low-income Korean youths).

As in Korea and Taiwan, Japan's public support for families with children has expanded intermittently since the early 2000s. Fertility, rather than poverty alleviation, was again the main motivation. Thus, the child allowance has become virtually universal, yet its benefit level has remained stable. Since the financial crisis in 2009, child poverty has begun to be addressed by the government. However, the policies set in place since then have been only in the form of in-kind assistance and services, such as waiver of university tuition for low-income families in 2020, free day-care centers for 3 to 5 year olds in 2021, and increase of school social workers in 2013. All such measures are helpful in alleviating negative effects of child poverty, yet they do not raise the disposable incomes of poor families with children.

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