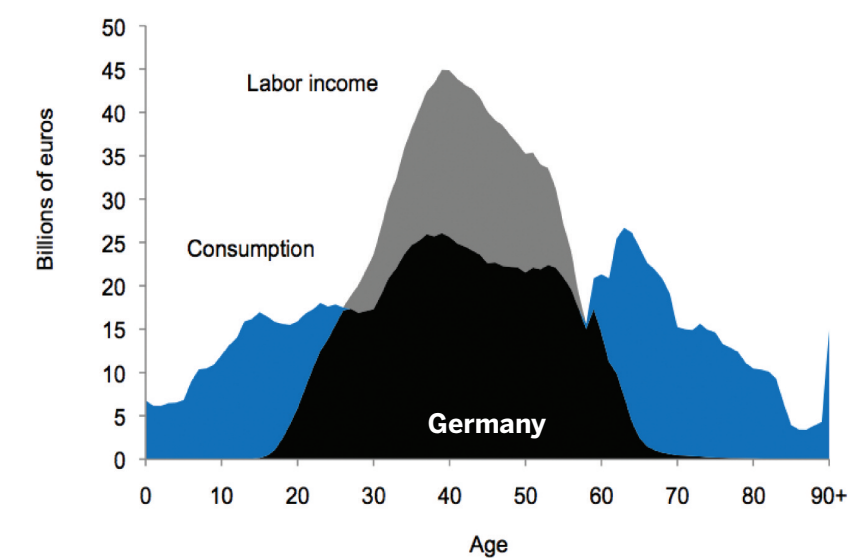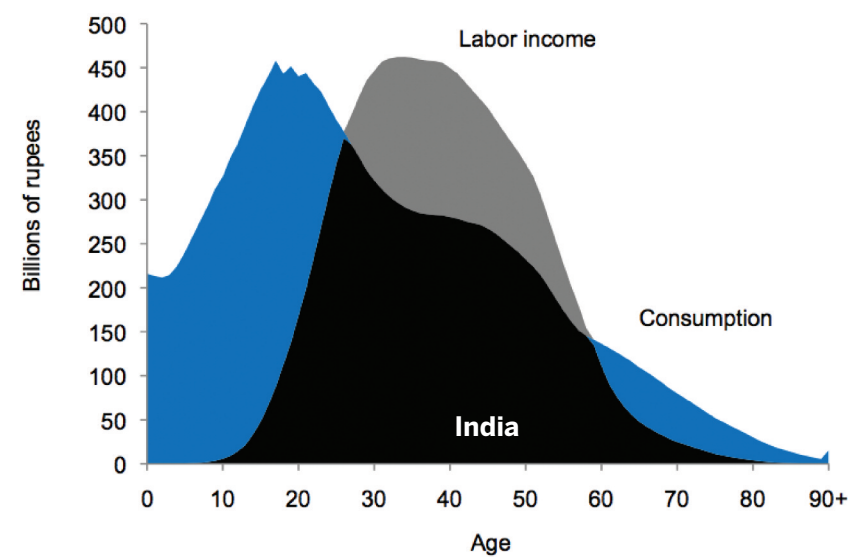# National Transfer Accounts:
DATA SHEET

Aggregate labor income and consumption by age in India (2004) and Germany (2003)

In countries at widely different stages of economic development, such as India and Germany, consumption exceeds labor income for two long periods of life. These bracket a surprisingly short period—little more than 30 years—during which more is being produced than consumed. The lifecycle deficit, defined as consumption in excess of labor income, is particularly high for the young in India and for the old in Germany. This is not because individuals in these groups have such high consumption relative to other age groups, but rather because these age groups are so large.

NATIONAL TRANSFER ACCOUNTS
Understanding the generational economy

National Transfer Accounts: Selected Variables

| | | Per Capita Consumption by Children and the Elderly | | | | | | Support Ratios (effective number of producers per 100 effective consumers) a | | | Fiscal Support Ratios (projected tax revenues relative to public transfers as % of values in 2010) b | | Human-Capital Spending (% of average annual labor income of a prime-age (30–49) adult) c | | Annual Economic Resources for Children, Age 0–24 (as % of annual consumption) d | | | | Annual Economic Resources for the Elderly, Age 65+ (as % of annual consumption) e | | | |
| | | Private (% of per capita private consumption age 25–64) | | Public (% of per capita public consumption age 25–64) | | Combined (% of per capita combined consumption age 25–64) | | | | | | | | | | | | | | | | |
		Age 0–24	Age 65+	Age 0–24	Age 65+	Age 0–24	Age 65+	2010	2030	2050	2030	2050	Private	Public	Labor Income	Private Transfers	Public Transfers	Asset-Based Reallocations	Labor Income	Private Transfers	Public Transfers	Asset-Based Reallocations
Africa		57	99	135	94	64	99	66	75	86	u	u	114	58	11	u	u	u	44	u	u	u
Kenya (KE)	1994	57	90	169	90	69	90	63	71	79	u	u	37	96	17	u	u	u	32	u	u	u
Nigeria (NG)	2004	57	108	102	98	60	108	69	79	93	u	u	191	21	5	u	u	u	56	u	u	u
East Asia		76	95	153	146	91	105	90	81	70	89	78	143	247	22	58	23	−2	20	18	34	33
China (CN)	2002	73	98	124	103	85	99	94	87	80	87	80	26	185	32	u	13	u	36	u	u	u
Japan (JP)	2004	67	108	194	229	90	130	78	71	60	87	74	140	389	14	50	33	3	12	1	51	37
South Korea (KR)	2000	79	85	158	125	93	92	94	84	71	89	80	100	202	23	66	21	−10	23	13	28	36
Taiwan (TW)	1998	87	88	138	127	98	97	92	82	67	92	79	307	213	18	57	24	1	11	40	24	25
South & Southeast Asia		66	96	169	121	77	99	91	95	94	108	109	91	151	21	63	15	1	32	2	−1	65
India (IN)	2004	63	103	125	141	71	107	88	96	96	u	u	78	105	20	u	u	u	28	u	u	u
Indonesia (ID)	2005	69	82	189	120	78	85	97	103	99	110	108	84	137	23	63	11	3	44	−27	1	81
Philippines (PH)	1999	66	105	150	109	76	105	83	91	94	111	116	124	111	18	69	13	0	39	4	−1	58
Thailand (TH)	2004	64	96	210	114	82	98	97	90	85	104	104	80	251	23	58	21	−1	17	30	−3	56
Latin America		61	102	156	134	73	106	90	92	86	91	79	120	206	19	65	14	2	22	−12	54	36
Brazil (BR)	1996	59	126	127	133	72	127	84	87	78	86	69	158	192	15	70	12	4	18	−31	89	25
Chile (CL)	1997	61	98	174	141	73	102	94	91	85	83	72	104	194	17	64	15	4	21	4	53	22
Costa Rica (CR)	2004	58	97	142	153	70	105	93	95	87	91	76	72	252	22	62	16	1	24	−1	51	27
Mexico (MX)	2004	59	88	174	129	70	92	95	100	94	99	86	100	232	18	61	15	6	26	−19	27	66
Uruguay (UY)	2006	67	102	163	115	80	104	85	87	85	98	90	165	160	23	69	14	−6	22	−11	49	40
Europe & US		59	93	177	193	86	116	84	75	69	87	79	45	377	20	45	33	2	6	−6	76	24
Austria (AT)	2000	58	89	172	173	82	107	90	77	70	83	74	28	359	36	35	28	1	2	−6	94	9
Finland (FI)	2004	56	89	164	163	84	108	82	73	71	87	83	18	344	17	u	40	u	4	u	83	u
Germany (DE)	2003	58	104	138	160	76	116	83	70	63	84	75	37	291	19	49	30	3	3	−7	69	35
Hungary (HU)	2005	52	94	151	145	80	108	86	82	73	93	77	33	361	13	32	48	6	6	−2	94	2
Slovenia (SI)	2004	70	89	223	211	103	116	76	64	56	81	72	50	476	17	52	30	1	4	3	80	14
Spain (ES)	2000	69	88	187	171	90	103	90	79	67	87	73	61	336	20	55	26	−1	7	−12	59	46
Sweden (SE)	2003	57	83	214	291	99	139	78	72	69	90	86	20	561	19	46	30	4	7	−10	101	1
United States (US)	2003	54	109	167	233	73	130	89	82	81	92	89	111	289	15	48	34	3	16	7	32	59

Changing population age structures

The NTA approach, which looks at economic indicators through the lens of age, is particularly critical today because population age structures are changing more quickly than in the past. Age structures are changing because people are having fewer children and, to a lesser extent, because they are living longer. In roughly half the countries of the world—concentrated in Africa, Latin America, and South Asia—the working-age population is growing faster than other age groups. This creates an age structure highly favorable for economic growth. For these countries, it will be valuable to invest this "demographic dividend" in capital formation and in the education and health of young people, who will be tomorrow's workers. The other half of the world—living in the countries of Europe, North America, and East Asia—has completed this phase of the demographic transition. Increasingly, these populations will consist of very few children, not many workers, and many old people.

Economic lifecycle

In all modern societies, children and the elderly consume more resources than they produce through their own labor, while working-age adults produce more than they consume. What makes this economic lifecycle possible is the flow of resources over time and across generations through a complex of social, economic, and political institutions. NTA quantifies the economic lifecycle using estimates of consumption and labor income by single years of age.

The first six columns in the table compare per capita consumption by young people (age 0–24) and the elderly (age 65+) with consumption by adults (age 25–64). Two types of consumption are distinguished—private consumption and public consumption, which includes government-provided education and healthcare. In general, private consumption is considerably lower for young people than for working-age adults, while private consumption by the elderly is similar or higher. Public consumption is generally higher for both children and the elderly than for working-age adults.
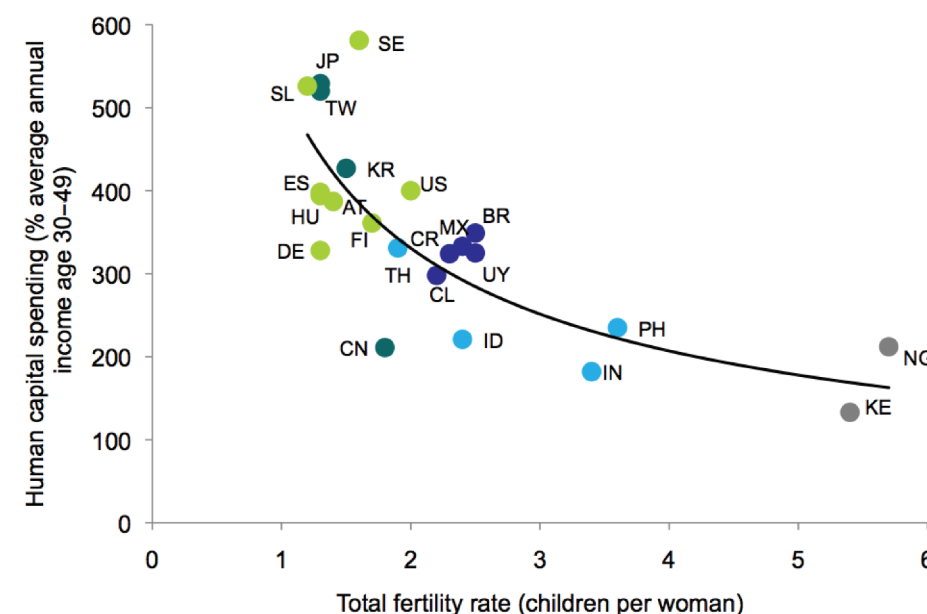
Support ratios

The support ratio is an important indicator of population age structure that measures the effective number of producers relative to the effective number of consumers. The effective number of producers incorporates age differences in labor-force participation, unemployment, hours worked, and wages. The effective number of consumers allows for age differences in consumption due to taste, physiological needs, and other factors.

In the course of economic development, the support ratio undergoes large swings. In the early stages of development, the support ratio can reach very low levels because there are so many children. Nigeria, for example, had only 69 effective producers in 2010 for every 100 effective consumers. This ratio is projected to increase to 93 producers per 100 consumers in 2050, with favorable benefits for the economy. The support ratio is rising throughout Africa and, for the present, in many Asian and Latin American countries.

Eventually, as large groups of workers reach retirement age, the support ratio will go down again. South Korea, for example, had 94 producers for every 100 consumers in 2010, projected to decrease to 71 in 2050. In East Asia, Europe, and the United States the support ratio is projected to decline for the foreseeable future

The fiscal support ratio measures how changes in population age structure will influence government budgets if current age-profiles of taxes and benefits remain constant. Projected values are expressed as a percentage of the ratio in 2010. The fiscal support ratio is projected to rise in Indonesia, the Philippines, and Thailand during the next two decades, meaning that tax revenues will increase relative to the cost of benefits provided by governments, but in all other countries for which estimates are available, the fiscal support ratio will decline, putting pressure on government budgets.

## The trade-off between fertility and human-capital spending

Increasing human capital spending is a promising strategy to offset the anticipated decline in the support ratio. Indeed, countries with low fertility tend to spend more on the health and education of each child than do countries with high fertility. As a result, future generations of workers should be more productive even if there are fewer of them. For example, human-capital spending on each child in low-fertility European countries is about four times the average annual labor income of a prime-age adult (30–49), while in high-fertility African countries human-capital spending on each child is only about twice the average annual labor income of this age group.

Economic resources for children and the elderly

Children and the elderly can rely on economic resources from four sources to support their consumption—labor income, public transfers, private transfers, and asset-based flows. Children have relatively low labor income everywhere. Even if they are working, their wages are low compared with those of prime-age adults. They also have little or no income from assets. In a few advanced countries, young adults may rely on credit (students loans or credit card debt, for example), but this is the exception rather than the rule. Rather, children rely extensively on private transfers from parents and grandparents with whom they live. In some higher-income countries, public transfers also fund a large share of consumption by children, particularly in Europe where the public sector dominates the education and healthcare sectors.

The elderly rely on a more diverse set of economic resources to support themselves. In some low-income countries, labor income is an important economic resource. Among the industrialized countries, labor income varies in its importance—low in most European countries and higher in the United States and Japan.
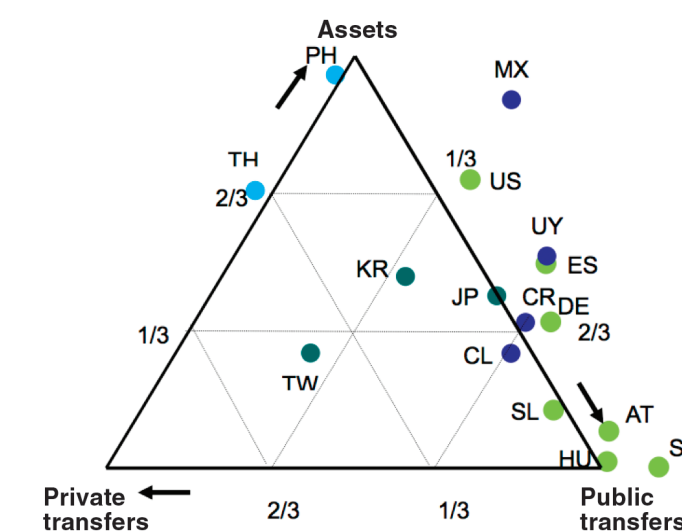
How do the elderly make up the difference between what they consume and what they earn? The triangle chart compares the relative importance of three sources of income—public transfers, private transfers, and assets. The importance of each component is represented by the distance from the points on the triangle. The elderly in Sweden and Hungary, for example, rely almost exclusively on public transfers. The elderly in Mexico and the Philippines rely heavily on assets. Private transfers are important in a few Asian economies—Thailand, Taiwan, and South Korea, for example, but not Japan. In many countries, net private transfers are close to zero, and in quite a few—those lying to the right of the triangle—the elderly actually give more to their children and grandchildren than they receive.