Core Variables
Draft March 16, 2004

	INFLOWS	OUTFLOWS
I. Lifecycle Deficit		
Labor Earnings (**Lin1+Lin2+Lin3**) Less: Consumption (**Cout1+Cout2+Cout3)**	**Lin1** – labor earnings.	**Cout1** – private consumption (FIES consumption expenditure less gifts given (**Fout1)** plus privately-funded health care (**Hin1**) plus gifts received (**Fin1**).
	Lin2 – employer provided benefits. Examples of employer-provided benefits: taxes paid to government on behalf of employees such as social security and unemployment insurance, contributions to private pensions and health-care.	**Cout2** – services received from owned housing (**Oin1**) and durables (**Din1**).
	Lin3 – earnings from self-employment. We might also consider estimating this by assigning 2/3rds of own business income as self-employed earnings.	**Cout3** – services received from publicly funded sources (**Gin1**).
	We ignored the non-wage benefit of paid leave (vacation and sick leave), since we do not count leisure as an outflow. We need to be careful that in adjusting to labor earnings to NIPA totals we use a wage bill which excludes paid leave (in 1992 paid leave was about 7% of total compensation in the US).	Consumption does not equal expenditure. There are many expenditures which are not consumed by the household: purchase of a house **(Oout2**), purchase of a consumer durable (**Dout2**), purchase of financial instruments (stocks, bonds, etc) (**Mout1**), and purchases of gifts for someone outside the household (**Fout1**). Relying mainly on consumer expenditure surveys, we will want to keep track of these different types of expenditures. Likewise, there is consumption which is not counted as expenditure: services derived from housing (**Oin1**) and consumer durables (**Din1**), gifts received (**Fin1**), services received such as medical care,

Comment: Tim, I moved items from Cout3 to Cout1 so that Cout1 will correspond to private consumption as defined in NIPA.

		education, roads/highways, police protection, fire protection (**Gin1**).

II. Lifecycle Reallocations		
A. Capital Transactions Non-labor factor income	**NLin1 –** non-labor share of earnings from self-employment.	**NLout2 –** interest expense associated with real investment, e.g., interest paid on margin accounts and interest paid on loans used to purchase a house (structure only) or a consumer durable.
	NLin2 – dividends, interest income from loans used to finance real investment, earnings retained by corporations.	
	NLin3 – value of services received from housing and consumer durables (the rate of return only).	
	NLin4 – earnings on pension plans (portion that is a return to capital investment).	
	The FIES does not distinguish interest income by the purpose of the loan (real investment vs. consumer credit). Aggregate date are used for this purpose and we will assume that the age profile of interest income is independent of the purpose of the loan. Earnings retained by corporations are treated as non-labor income for the inflow side of the ledger and as an investment on the outflow side of the ledger.	
Dis-investment, net	**Kin1 –** disposal of an unincorporated business; depreciation of real business assets.	**Kout1 –** investment in or acquisition of an unincorporated business.
	Kin2 – disposal of stocks and bonds; loans used to finance real investment.	**Kout2 –** acquisition of stocks and bonds; loans used to finance real investment; implicit increase in capital due to retained earnings.
	Kin3 – disposal of housing (structure) and consumer durables; depreciation of housing (structure) and consumer durables.	**Kout3 –** acquisition of housing (structure) and consumer durables.
	Kin4 – Distribution of pension assets to household (share held in capital).	**Kin4 –** Contributions to pension plans by employees and employers (share held in capital).
	Transfers of capital, e.g., bequests, are treated in the following way. The household making the transfer dis-invests and makes the transfer. The receiving household receives the transfer and then invests. Investment in housing is limited to the structure. The acquisition and disposal of land does not represent real investment and is included in *credit and land transactions*. Contributions to pension plans and earnings on pension plans should	

<table>
<tr><td></td><td colspan="2">include contributions by the public sector on behalf of their employees. Unfunded plans should include implicit contributions and earnings. These data are available from the IMF for some countries.</td></tr>
<tr><td rowspan="5">B. Credit and land transactions</td><td>Min1 – Interest income from consumer credit</td><td>Mout1 – Interest expense from consumer debt</td></tr>
<tr><td>Min2 – Increase in consumer debt</td><td>Mout2 – Reduction in consumer debt</td></tr>
<tr><td>Min3 – Rental income, land</td><td>Mout3 – Rental expense, land; interest expense incurred for the purchase of land.</td></tr>
<tr><td>Min4 – Disposal of land.</td><td>Mout4 – Acquisition of land</td></tr>
<tr><td colspan="2">Disposal and acquisition of land includes land owned directly by the household, e.g., owner-occupied housing, rental property, and land owned as part of an unincorporated business, and land owned indirectly through its ownership of corporations. When a household acquires or disposes of financial assets some portion of those assets are backed by capital, some by credit, and some by land. Transfers of land, e.g., through bequests, are treated in the same way as transfers of capital.</td></tr>
<tr><td rowspan="3">C. Transfers
Public, Non-market</td><td>Gin1 - cash transfers received by households for social security, welfare payments, etc.</td><td rowspan="2">Gout – Taxes and other non-market transfers. Depending on the context, taxes are distinguished by the source. Standard classifications in the IMF Government Finance Statistics Yearbook are (1) taxes on income, profits, and capital gains paid by (a) individuals, (b) corporations, and (c) other unallocable; (2) social security contributions; (3) taxes on payroll and workforce; (4) taxes on property; (5) domestic taxes on goods and services; (6) taxes on international trade and transactions; (7) other taxes. Source of taxes is useful to estimate age-profile for overall taxes and for specific public programs with a specific tax earmark. For example, US social security is mainly funded from payroll taxes. Taxes allocated to the payment of public debt are excluded. (See transfers, public, market.)</td></tr>
<tr><td>Gin2 – Goods and services provided by the government. These include age-targeted goods and services such as public education, public housing, health care and non-age-targeted goods and services such as road construction, fire protection, etc. Includes all congestible goods and all public goods.</td></tr>
<tr><td colspan="2">Based on conversations with Alan Auerbach, US taxes collected from businesses by state and local governments are assumed to exactly equal services those businesses receive from the state and local governments. The idea is that if this were not the case, businesses would just move to another state.</td></tr>
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Public, Market	Interest income from holding public debt.	Taxes paid to finance public debt.
	Disposal of government bonds.	Purchase of government bonds.
Private	Intra-household – value of goods, services, and monetary transfers received from other household members.	Intra-household – value of goods, services, and monetary transfers provided to other household members.
	Inter-household **-** gifts received and regular contributions for support such as alimony payments.	Inter-household **-** gifts made and regular payments for support such as alimony payments.
	Bequests – value of all real and financial assets inherited as a result of the death of a household head including life insurance proceeds. Value of assets received as a result of household fusion or reclassification.	Bequests – value of all real and financial assets bequeathed as a result of the death of a household head including life insurance proceeds. Value of assets transferred as a result of household fusion or reclassification. Transfers include outflows from households that ceased to exist during the period.
Additional issues	1. Treatment of entrepreneurial income and other non-tax revenue received by the government. 2. Change in cash balances. 3. How to handle life insurance. Surely payment of premium can't be treated as a bequest.	
8. Private health transfers	**Hin1** – services received from private health insurance (own or company provided). This is usually not observed and we have assumed it equals **Hout** at each age, so that there is no age transfers of resources. But, one might imagine a redistribution from young workers to older workers, or those without children to those with children.	**Hout1** – contributions to health insurance by household. **Hout2 -** employer contributions to private health insurance.