

## MMT and The Wealth of Nations: Sectoral Balances Meet Balance Sheets

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### Abstract:

The focus in the Flow of Funds Accounts on within-period measures (production, income, investment, saving, and lending/borrowing) means that wealth accumulation — which is dominated not by saving but by holding gains — gets limited attention in the economic conversation. This presentation turns to the modern Integrated Macroeconomic Accounts to focus on changes in total assets and net worth: the bottom-line balance-sheet measures that aren't tallied in the FFA matrix. The IMAs' complete, stock-flow-consistent accounting construct, coherently balancing all relevant flow measures to bottom-line balance sheet changes, for all sectors, enables both accounting clarity and economic understanding of the mechanics and history of wealth accumulation — the important topic embodied in Adam Smith's most famous title.

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Good morning. Thanks for being here. It's early, so I'm going to start by saying something radical, hoping to wake you up and catch your attention: I think MMTers should stop talking about...money. Really. I'm serious. I'm not going to explain that right off. I hope it'll come clear in the course of things.

Instead, today I want to talk about wealth. It's a topic that I think gets short shrift from economists. It's obviously important — Adam Smith wrote a whole book about it **CLICK** — but wealth, and especially wealth *accumulation*, doesn't get much love from economists.

When I talk about wealth here I'm just talking balance sheets: assets and net worth. There are other important ways to discuss wealth, but I'm going to go with a straight accounting-based approach, and terms defined by accounting identities. Go with me on that for the next fifteen minutes. Wealth is about balance-sheet assets and net worth.

Now here's the thing: until ten or twenty years ago, our national accounts *didn't even have balance sheets*. And they didn't tally holding gains, capital gains, which you have to do to *explain* balance sheets.

**CLICK** I'm definitely not the first person to notice this. Here from Michael Hudson and Dirk Bezemer. The emphasis is mine. They make a crucial point: Holding gains are invisible in the NIPAs and FOF accounts. But to go even farther: wealth is also invisible: assets and net worth. Much or most economics and economic modeling today still operates in that pre-balance sheet world.

MMT models stand out this way; they do incorporate wealth, in particular in their behavioral equations and consumption functions. It's a huge improvement over Keynes. But as it's broadly understood out there in the world — focusing on sectoral balances, inside and outside money, and private “surplus” — I don't think MMT gives wealth the attention it deserves.

To start with I'd like to put across the magnitude of the numbers we're talking about here. I'm from Missouri — hi, it's nice to be back — so I'm always like, “show me the numbers.” **CLICK** Latest numbers: Household assets in the US total \$110 trillion. Liabilities are still \$15 trillion (they change slowly compared to assets). Household net worth is \$95 trillion.

That's \$832,000 in assets for every household in America.  $\frac{3}{4}$  of a million dollars in net worth.

Even really small percentage shifts in these massive wealth numbers can have huge economic effects. But you don't hear economists talking about those numbers much. You pretty much *never* see them in the newspaper.

I blame it on the national accounts. Before 2006, just a decade ago when the Integrated Macroeconomic Accounts were released, the US didn't even *have* complete, sector-by-sector, stock-flow-consistent accounting of assets and net worth. We didn't get quarterly tables until 2012 — *only five years ago*.

What do I mean by “complete” stock-flow-consistent accounting? Think of a basic set of business statements. **CLICK** The income statement fully explains changes in the balance sheet. Pretty straightforward. In particular, it fully explains changes in assets and net worth.

**CLICK** Now look at the Fed's flow-of-funds matrix, right up front on pages 1 and 2 of the Z.1 report, and the Levels and Flows tables that it summarizes. Of course it's all stock-flow consistent, as far as it goes. Everything balances here. But... **CLICK**

Start with the Levels tables. They only tally financial assets. Real-estate holdings, for instance, are absent, invisible here. That's 25% of household sector Assets right there, missing from this tally.

The Levels tables in the Flow of Funds *aren't balance sheets*. They're incomplete. They don't tally total assets and net worth.

**CLICK** The Flows tables, for their part, don't tally holding gains — even for financial assets. So there's no way they can tot up *changes* in total assets or net worth.

Now to be fair: the Fed reports have included some balance sheets over the years, but only for households and nonfinancial business. From 85 to 95 we had the largely unknown and rarely utilized “C.9” tables. In 1997 those were rolled into the Z.1 as

the B or Balance Sheet tables, along with necessary “R” or reconciliation tables. We still don’t have B and R tables for the financial, government, or ROW sectors.

And even for HHs and nonfinancial business, you’ve got four tables per sector — Flows and Levels, then Reconciliation and Balance Sheets sort of bolted on. It’s pretty tough to “follow the money” if you’re not an accounting adept.

I think everyone in this room will agree that most economists are not accounting adepts.

So in 2006, only a decade ago, the Fed and the BEA published the IMAs. Every sector gets a complete and coherent stock-flow consistent accounting, with Net Worth and change in Net Worth at the bottom.

These are the “S” tables at the end of the Z.1 report. There’s also very convenient downloading of the tables on the BEA site.

**CLICK** The IMAs include three additional accounts for every sector, which in the FFAs are squirreled off into the R and B tables — and that again only for “real” sectors. These accounts complete the accounting from the Flow of Funds matrix. They get you to net worth.

The revaluation, or holding gains, account includes both financial and nonfinancial assets. It’s mark-to-market accounting, with estimates based on market indexes. If anyone here is thinking about Godley and Lavoie’s great discussions of Haig-Simons income, you’re right. I’ll get to that in a moment.

Other changes in volume is kind of a catch-all and grab bag, and it varies by sector. Disaster losses, measurement changes, nonproduced nonfinancial assets like mineral rights, household durables, statistical discrepancy... I won’t discuss this account here, though its magnitude is significant.

The balance sheet account is pretty obvious. Notably, it tallies both financial and nonfinancial assets. Balance sheet changes are fully, consistently, and coherently explained by the flow accounts.

**CLICK** This complete accounting lets you construct the kind of straightforward, coherent sources and uses presentation you expect in business financial statements. Starting net worth. Inflows. Outflows. Ending net worth. You can’t do this from the FOF’s Levels and Flows tables.

**CLICK** For reference, here’s what the revaluation account looks like, highlighting the pieces that are missing in the FOF matrix: nonfinancial assets, and change in net worth.

With these three accounts added to the FOF matrix, you get a complete picture of assets, net worth, and changes in those measures. Wealth accumulation.

So how does this all relate MMT thinking? **CLICK** I'd like to focus on three related MMT concepts: the sectoral balances identity, private-sector "surplus," and inside and outside money.

Starting with sectoral balances. **CLICK** Here's a picture we're all familiar with. It's completely a construct of the FOF matrix — it's net lending/borrowing by sector. The key takeaway for people out there is that government deficit spending creates private-sector "surplus." This is ignoring ROW, of course, but it's the basic idea many come away with. And it's an incredibly important takeaway.

But to be clear on what that word "surplus" means. It's not a term in the national accounts. In straightforward balance-sheet terms, we're just saying that Government deficit spending *adds assets* to private-sector balance sheets — but no liabilities. So it adds to private sector net worth. But to avoid the confusion that we hear out there a lot, I think it's important to emphasize that federal deficit spending (plus/minus ROW) creates a private-sector surplus; not the private sector surplus.

**Because here's a key point I want to make: CLICK** Holding gains do exactly the same thing. Market runups create new assets on private-sector balance sheets. One block trade of Apple stock goes through at a higher price, and every balance sheet that holds Apple stock instantly has more marked-to-market assets. And no more liabilities. So they have more net worth. Market runups create assets and net worth — wealth, "money" — out of thin air.

And **CLICK** we're talking *big* magnitudes here. Long term, the balance sheet effects of holding gains dwarf sectoral flows. **CLICK** Here just showing private surplus from sectoral balances compared to holding gains. **CLICK** Take a look at '96-'08 for a pretty standout example, also the years since The Great Whatever. 2013 really stands out: household wealth increased by \$10 trillion that year. \$7 trillion of that was holding gains.

When asset markets go up, the private sector has more assets or quote "money."

This is not to suggest that sectoral balances are unimportant — far from it. Especially because policy makers have important influence over those flows. But they don't come close to explaining wealth accumulation.

**CLICK** Next, the ideas of inside and outside money. This larger accounting construct suggests that there are actually three sources of quote "money" in the economy.

Government deficit spending creates new private-sector assets with no new liabilities, so it creates private sector net worth. Bank lending creates new private sector assets *and* new liabilities, so expanded balance sheets but no new net worth.

Holding gains, market runups, *just like gov def spending*, create new assets, with no new liabilities, so plus net worth.

**CLICK** Here's how those three "money sources" compare as asset creators. Fed deficit spending is blue, bank lending is orange, holding gains are green (You can't just add these up, by the way; they're not sector-equivalent. This is just to show relative magnitudes.)

**CLICK** Here's what that looks like over three decades. This is just summing up nominal dollars, but again it puts across the magnitudes.

This is what's invisible inside the FOF matrix: The dominant economic mechanism of private-sector wealth accumulation.

Now **CLICK** here's the key thing about holding gains that makes them different from the other two: *no sector issues those new assets*. When the government deficit spends, it posts liabilities to its balance sheet. (Though I think most here will agree that they're largely pro-forma entries. A liability that will never be paid off is a questionable "liability.") Same with bank lending; new liabilities are posted.

With new assets from holding gains, on the other hand, no balance sheet posts any offsetting liabilities.

When the market value of your house or your stock portfolio goes up, you've got new assets that, didn't come from anywhere. There's no source for that "money."

This brings us back to a core economic concept, the monetary circuit. **CLICK** You see it in all sorts of forms, some very elaborate. They all share one thing: they're closed-loop, balance to zero. That's what's embodied in the flow of funds matrix. That matrix *does* encompass new asset creation *if those assets "come from" some sector*. But holding gains don't, so they *can't* be included in the FOF matrix as it's constructed. It would break the closed-loop, balance-to-zero monetary circuit.

**CLICK** By contrast, here's the IMAs' accounting circuit, with the key extra accounts circled. It starts and ends with the balance sheet.

Now I want return to the subject of this session, and be very clear: Godley and Lavoie and advanced MMT modelers *get* this reality. **CLICK** The two accounting matrixes in *Monetary Economics* that incorporate holding gains, for instance, are unique in the book: unlike all the others, *they don't balance to zero* across the bottom.

This is exactly as it should be. They can't and they shouldn't, because the economy is *not* a closed circuit. It doesn't balance to zero; it balances to net worth. Wealth increases.

This reality is coherently incorporated in the book's later models, and in other MMTers' advanced models. I'd highlight here the brand new Roosevelt Institute report on UBI by Michalis Nikiforos, Marshall Steinbaum, and Gennaro Zezza, using the Levy model, which even includes a distributional dimension to wealth. But not all SFC models do. Alessandro Caiani's great *agent-based* SFC modeling, for instance, doesn't (though his earlier, non-ABM work does).

Next I'd like to home in on one particular term, "saving," and its relationship to wealth accumulation. This term and the concept, in my opinion, is the biggest dumpster fire in economics. It's actually the general case of the whole loanable funds nonsense.

Pretty much every economist thinks that wealth accumulation *comes from saving*. Tally up all the saving over time, and voila you've got wealth. This is inherent in Piketty's Second Law, for instance. But **CLICK** that's not even close to true. Again, cap gains dominate wealth accumulation. Not saving.

A good way to understand that is to look at the IMAs' derivation of change in net worth. **CLICK** There are four contributors in this derivation. Capital formation is actual creation of new stuff. Net Lending/Borrowing is accumulating *claims* against *other* sectors. Plus there's other changes in volume, and Holding gains. Here's **CLICK** what those look like graphed out in nominal dollars. **CLICK**. And here it is more usefully in 2015 dollars, with 2008 chopped off so we can zoom in.

Note that I've combined HH and firm saving here to give it full credit, and backed that firm saving out of HH cap gains. Cause firms' change in book value, retained, earnings, undistributed dividends are "saving" on HH's behalf. This is also how Piketty Saez and Zucman handle their accounting of saving.

This depicts two *completely distinct economic mechanisms* that together comprise sectoral "saving." 1. Creating and accumulating real, actual stuff *within* the sector, stuff whose value is added to balance sheet assets, and 2. Accumulating *claims* against *other* sectors' stuff. Capital creation and claims accumulation are completely different economic mechanisms.

When you're looking at what MMTers call "private surplus" in the sectoral balances graph, you're looking at that little purple slice. Net lending/borrowing. It's a pretty small piece in the big picture of wealth accumulation.

**CLICK** To coherently incorporate all these components of wealth accumulation, we really need to be thinking in terms of Haig-Simons income, which Godley and Lavoie discuss excellently and at length.

This definition — "regular" or "primary" income *plus holding gains*, which equals consumption plus change in net worth — is kind of radical. It's saying that marked-to-market capital gains *are income*. Even Godley and Lavoie shy from this break with

convention a bit, leaving holding gains outside income in their matrixes. Some other heterodox accounting-based economists object pretty strongly to this definition. Mainstream economists, and Wall Street, hate it. Because it shows the true, extraordinary incomes of wealthy people, families, and dynasties.

Which brings me back to the topic of this conference: Economics for a New Progressive Era. Until recently, and since the dawn of the national accounts, economists have been working with accounting that makes rich people's wealth and most of their wealth accumulation largely invisible. **CLICK** And *that* brings me back to Michael Hudson and Dirk Bezemer. This is exactly the point they make. The economic, political, and policy implications of this accounting reality are...profound.

They're profound enough that I'm going to be inflammatory here, and overstate my case. If we are *not* thinking, speaking, and modeling in terms of comprehensive, Haig-Simons income, encompassing all the sources of wealth accumulation, if we're still thinking inside the traditional definition of "saving" that's embodied in the circular flow and in the flow of funds matrix, we are part and parcel of the problem at the heart of mainstream economics. As Godley and Lavoie say, keeping cap gains outside of income is "just a convention." I want to suggest that it's a pernicious convention.

If I have a couple more minutes there are two more slides I'd like to show showing the kind of empirical insights you can get when you start focusing on wealth — one about cyclical effects, another about secular.

**CLICK** First, here's one for the modelers, suggesting how wealth might play out differently in behavioral equations. Since the end of Bretton-Woods, every time real HH assets or net worth declined, year over year, you were either just into or about to be into a recession. There are two false positives here, right after the 2000 and 2008 recessions, but they both look like blowback as those recessions worked themselves out. Otherwise, this measure is seven for seven predicting recessions over half a century.

The behavioral, causative economic theory here isn't complicated: when people suddenly have less money, they spend less. And it's perfectly in keeping with Kahnemann and Tversky's Prospect Theory: humans *hate* losses. They react very negatively to them. I'll just leave that there for the modelers to ponder.

**CLICK** Next, a secular look. As wealth concentration has skyrocketed, wealth turnover, the velocity of wealth, spending out of wealth, has plummeted. These are big moves; annual velocity is down from 31% to 22%. Again the theory is quite simple: people have a declining marginal propensity to spend out of wealth. So for a given amount of wealth, more wealth concentration means less spending. Take an extreme thought experiment: if one person had all the wealth, how much spending would there be? Not much.

If economists are looking for an explanation of what seems to be a chronic demand shortfall, it strikes me that they might not look much beyond the horrendous wealth concentration that's developed since the Reagan Revolution. Wealth concentration is strangling our economy.

And finally to conclude I'd like to come back to my crazy opening statement, and ask a question: In all this talk about balance sheet assets and net worth, have I been talking about "money"? Catch me after and I'll tell you what I think.

**CLICK** Thanks for listening. I hope you enjoyed. Please drop me a line. I'd love to hear your thoughts.