

## Why Deleveraging Hurts So Much

Last Friday I had the honour of sharing the podium (and a good supper afterward) with Steve Keen, the awesome Australian economist who was recently named the winner of the “Revere Award” for the most accurately forewarning of the global financial crisis. In fact, that award was announced the same day we spoke together to the Politics in the Pub speaker’s series in Sydney. Here are links to the Revere Award announcement (from the prize sponsors, the Real World Economics Review), and to a report and film clips (by Steve, on his Debtwatch blog site) of the night’s activities:

<http://rwer.wordpress.com/2010/05/13/keen-roubini-and-baker-win-revere-award-for-economics-2/#more-1247>

<http://www.debtdeflation.com/blogs/2010/05/15/stanford-and-keen-double-bill/>

In his closing remarks to the group, Steve Keen walked through a very interesting arithmetic exercise to reveal the importance of new credit creation to overall aggregate demand conditions (and hence, in a demand-constrained real world, to growth and employment). The simulation was largely lost on the crowd (which had imbibed heartily throughout the proceedings – that being the whole point of “Politics in the Pub”). But it did spark my interest in following up.

Here I recreate, with full credit and thanks to Steve Keen, the logic of his argument, utilizing Canadian data. The implication of Keen’s model is that the only reason the recession was not much worse in Canada (like Australia) is because of the surprising continued expansion of private indebtedness right through the downturn. In both countries, this was entirely due to feverish activity in real estate markets (mostly the resale of properties, not new construction), sparked by near-zero interest rates and a healthy dose of speculative greed. That expansion of private debt, despite declining incomes, has pushed private debt ratios to record highs. Clearly it cannot continue forever (although it’s not easy to predict exactly when it will turn around).

But the implication of Keen’s analysis is that when the expansion of the private debt burden *does* stop (as it must sometime), it will wreak disastrous results on spending power, GDP, and labour markets. It’s not just that a decline in debt would be associated with another downturn; that’s something most of us are well aware of. Because our economy has become so dependent in recent years on the rapid (and obviously unsustainable) expansion of private debt, merely stopping (or substantially slowing) the growth of that debt would knock a giant hole in aggregate spending – enough to send us into a double dip.

Here’s the logic, illustrated by two tables posted below.

First, keep in mind that total aggregate demand (or spending power) equals the incomes generated by real economic activity (ie. GDP), plus net new borrowing. Table 1 shows that Canada’s private sector was borrowing heavily in the years leading into the crisis. At peak in 2007

(the last full year before the crisis hit), private debt expanded nearly 10%, with households leading the way but businesses close behind. As the recession took hold, business borrowing slowed to a standstill. But after barely catching a breath in fall 2008 (after the shock of Lehman Bros.), Canadian *households* kept on borrowing like there was no tomorrow, lured by the interest rate cuts. Housing prices, which had earlier started to turn down, promptly took off. The resulting real estate boom (so far reflected much more in agents' commissions, not new home construction) has been a key source of the modest GDP growth generated since the recession's trough a year ago. The business sector, in contrast, does not share households' optimism (perhaps a better word is "complacency"?): business credit has not budged since November 2008.

All that new borrowing (driven solely by households) adds to the ability of Canadians to spend on real output, imports, and assets (including real estate). The relationship between this total purchasing power (aggregate demand) and actual production depends on whether total demand is growing, and on how it is divided between production and assets.

Keen's point is that the rise in private debt provided an increasing share of total spending power in the years leading up to the crisis – one of the reasons he knew that boom couldn't last. Moreover, as debt becomes large relative to GDP, then those increases in debt become ever more important in order to sustain total aggregate demand (GDP plus new debt) and prevent a downturn in spending (which would be reflected in a combination of real recession, disinflation, and asset price deflation).

See Table 2 for an application of this model to the Canadian data. In 2007, private debt grew (line 6 of Table 2) by over \$200 billion (almost 10%), and this new debt accounted for 12% of aggregate demand that year (line 8). With all that spending power, the economy grew rapidly. As the economy slipped into recession, private debt growth slowed (and became 100% dependent on Canadian households being willing to keep pumping up those debt ratios). For last year as a whole, private debt grew by half as much (under \$100 billion), and accounted for half as large a share of GDP (6%). The mere *slowdown* in private debt creation accounted for about half of the drop off in total private aggregate demand last year (which declined by almost \$150 billion). Continued private debt creation (again, 100% from households, none from businesses) combined with falling real incomes pushed the aggregate private sector debt burden to an all-time record of 170% of GDP (line 10 of Table 2).

(Just for perspective, remember that the federal government's debt burden amounts to less than 35% of GDP. Why does public debt attract so much attention and panic ... while the far larger, and I would argue more dangerous, accumulation of private debt, is mostly ignored??? This reflects the *Animal Farm*-like mentality of most politicians and commentators: "Private debt good, public debt bad.")

The dramatic actions of government partly offset this steep drop in private sector aggregate demand. Almost \$80 billion in new borrowing by governments at all levels (line 11 of Table 2) offset over half of the decline in total aggregate demand that otherwise would have occurred. In other words, by this reckoning, the recession would have been twice as bad without those government deficits. Keep that in mind as the balanced-budget fanatics now aim their cannons at your favourite social program.

Now, let's try to extrapolate this analysis into the future. The last three columns of Table 2 do that, utilizing a starting point for nominal GDP of \$1.6 trillion – roughly where it will be by the midpoint of 2010. (We are thus looking one year forward from now, rather than thinking in calendar years.)

Consider the problem facing the Canadian economy, as it tries to wean itself from the debt that has fuelled its recent progress. It is very hard to fathom that Canadian households are going to keep borrowing at their current drunken pace, for several reasons:

- interest rates can only go up;
- overblown real estate prices will almost certainly retreat over the next year, cutting into demand for two reasons: less credit is required to buy cheaper houses, and (more importantly) a decline in prices immediately throws the speculative engine that has driven recent sales into reverse;
- the rising debt burden of consumers would eventually curtail new borrowing even without those factors.

I present three scenarios in Table 2: new private debt slows down (to half of last year's net borrowing), private debt stabilizes (no net new borrowing), and the private sector actually starts to deleverage (something that's been warned about but hasn't actually started to happen yet). In the first two scenarios, new borrowing adds little or nothing to aggregate demand; in the last scenario, it takes away from aggregate demand. Line 10 of Table 2 indicates that none of these scenarios would lead to a dramatic decline in the already-bloated private debt burden: it falls by a few points in each scenario from its current record level, but even in the deleveraging scenario only falls back to where it was in 2008. (Just imagine if private agents actually followed the same debt-phobic thinking of current politicians, and tried to significantly reduce their debt burdens; as my friend Doug Henwood puts it, we'll all be wearing barrels.)

At the same time, of course, governments at all levels are now trying frantically to slash their own deficits (which were so important to limiting last year's downturn). Let's assume that they succeed (despite swimming against the macroeconomic tides) in reducing their collective deficit by half moving forward.

The bottom line result is shown in Line 13. In the debt slowdown case, total aggregate demand grows by 4 percent in nominal terms compared to 2009 year averages. After deducting inflation, that's consistent with very slow growth (1-2%) in the real economy – not enough to put a dent in our unemployment. In the debt freeze case, nominal aggregate demand grows by only 1% – which implies outright contraction of the real economy, and rising unemployment. Even a modest deleveraging by the private sector leads to a significant contraction in nominal demand, and a very severe (depression-style) contraction in real output and employment.

The arithmetic insight here is that it doesn't take an actual contraction in debt to bring about a real recession. Just slowing or stopping new debt creation will do the trick – because our economy has become structurally dependent on a continuing "fix" of debt to pay for the stuff we produce.

Second, to the extent that Canada is experiencing a recovery (and I am still not convinced that is an appropriate use of the term), it has been 100% dependent on the willingness of Canadian

households to pump their indebtedness to record levels. (According to Statistics Canada, household debt was already 144% of disposable income at the end of 2009.) Once that willingness to go into hock reaches its inevitable limit, then there is nothing else pulling up the slack. In particular, the vaunted Canadian business sector has done nothing so far to fill the demand gap in our economy; all the recovery so far (such as it's been) has been courtesy of households and governments.

Thirdly, the efforts by Canadian governments to slash their deficits in coming years would make a bad situation far worse, if in fact private debt slows, stops, or (god help us) reverses.

I am not predicting a debt collapse here. I am simply highlighting how fragile the base for Canada's continued expansion has become – and how withdrawing the only sources of recent spending (household and government debt) would put us quickly right back into the soup again.

My acknowledgements again to Steve Keen for his insights. Here are the tables:

	Total	Households	Business
2007	9.68%	11.63%	7.73%
2008	7.06%	9.35%	4.69%
2009	3.62%	7.50%	-0.57%

					Go-Forward Scenarios		
		2007	2008	2009	Slower Debt Growth	Stable Debt	Deleveraging
1	Nominal GDP (\$b)	\$1,533	\$1,600	\$1,528	\$1,600	\$1,600	\$1,600
2	Annual Growth	5.8%	4.4%	-4.5%			
3	real growth	2.5%	0.4%	-2.6%			
4	GDP inflation	3.2%	3.9%	-1.9%			
5	Private Debt (yr end, \$b)	\$2,348	\$2,513	\$2,604	\$2,654	\$2,604	\$2,504
6	Change in Debt (\$b)	\$207	\$166	\$91	\$50	\$0	-\$100
7	Total Agg.Demand (\$b)	\$1,740	\$1,766	\$1,619	\$1,650	\$1,600	\$1,500
8	Change Debt as Share AD	12%	9%	6%	3%	0%	-7%
9	Change AD (\$b)	\$135	\$26	-\$147	\$31	-\$19	-\$100
10	Private Debt Ratio	153%	157%	170%	166%	163%	157%
11	Change Gov't Debt (\$b)	-\$24	-\$2	\$78	\$39	\$39	\$39
12	Change AD (incl. gov't, \$b)	\$111	\$24	-\$69	\$70	\$20	-\$61
13	as share GDP	7.3%	1.5%	-4.5%	4.4%	1.3%	-3.8%