

PRIME CHOICE

By Moshe A. Milevsky

Contrary to popular belief, sound mortgage financing should not be based on interest rate speculation. Going with a fixed or variable rate simply depends on your clients' tolerance for risk.



I'm constantly asked, "What's the best way to finance a mortgage—through a variable rate or a fixed rate?" Three years ago, I argued that variable was the better route. For thousands of Canadians who have since taken variable rate mortgages (VRMs), it seems this was a good call.

However, with the Bank of Canada poised to raise rates, it is time to revisit the idea behind VRMs and how they can be applied to your client.

First, some historical background. I

wrote a report advocating VRMs in April 2001. Back then, the quoted annual percentage rate on a typical VRM was 6.5%—which is based on

the prime rate of interest. Meanwhile, the average five-year fixed rate was 7.5%. This modest spread of 100 basis

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Illustration by Peter Ferguson

Assume you took out a **FIXED** rate mortgage in April 2001

Rate of Interest (s.a.)	7.500%
Periodic Rate (monthly)	0.6155%
Mortgage Principal	\$100,000
Amortization Period (years)	20
Monthly Payment	\$798.60

MONTH	OWING (START)	INTEREST (PLUS)	PAYMENT (MINUS)	OWING (END)	INTEREST RATIO
1	\$100,000	\$615	\$799	\$99,817	77.1%
2	\$99,817	\$614	\$799	\$99,633	76.9%
3	\$99,633	\$613	\$799	\$99,447	76.8%
4	\$99,447	\$612	\$799	\$99,261	76.6%
5	\$99,261	\$611	\$799	\$99,073	76.5%
6	\$99,073	\$610	\$799	\$98,884	76.4%
7	\$98,884	\$609	\$799	\$98,694	76.2%
8	\$98,694	\$607	\$799	\$98,503	76.1%
9	\$98,503	\$606	\$799	\$98,310	75.9%
10	\$98,310	\$605	\$799	\$98,117	75.8%
11	\$98,117	\$604	\$799	\$97,922	75.6%
12	\$97,922	\$603	\$799	\$97,726	75.5%
13	\$97,726	\$601	\$799	\$97,529	75.3%
14	\$97,529	\$600	\$799	\$97,331	75.2%
15	\$97,331	\$599	\$799	\$97,131	75.0%
16	\$97,131	\$598	\$799	\$96,930	74.9%
17	\$96,930	\$597	\$799	\$96,728	74.7%
18	\$96,728	\$595	\$799	\$96,525	74.5%
19	\$96,525	\$594	\$799	\$96,321	74.4%
20	\$96,321	\$593	\$799	\$96,115	74.2%
21	\$96,115	\$592	\$799	\$95,908	74.1%
22	\$95,908	\$590	\$799	\$95,699	73.9%
23	\$95,699	\$589	\$799	\$95,490	73.8%
24	\$95,490	\$588	\$799	\$95,279	73.6%
25	\$95,279	\$586	\$799	\$95,067	73.4%
26	\$95,067	\$585	\$799	\$94,853	73.3%
27	\$94,853	\$584	\$799	\$94,638	73.1%
28	\$94,638	\$582	\$799	\$94,422	72.9%
29	\$94,422	\$581	\$799	\$94,205	72.8%
30	\$94,205	\$580	\$799	\$93,986	72.6%
31	\$93,986	\$578	\$799	\$93,766	72.4%
32	\$93,766	\$577	\$799	\$93,544	72.3%
33	\$93,544	\$576	\$799	\$93,321	72.1%
34	\$93,321	\$574	\$799	\$93,097	71.9%
35	\$93,097	\$573	\$799	\$92,871	71.7%
36	\$92,871	\$572	\$799	\$92,644	71.6%

	Interest Paid	Total Payments	Debt Reduction	Int. Ratio
Total	\$21,394.00	\$28,749.68	\$7,355.68	74.4%

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points represented an immediate monthly saving of \$60 on a \$100,000 loan that was amortized over 20 years. While this number might not have seemed meaningful at the time, as variable rates dropped to the current neighbourhood of 3%, the difference compounded to a substantial sum.

The charts on this page and page 17 display the savings from having followed this advice during the last three years. Two hypothetical clients, Linda Long and Shelly Short, each borrowed \$100,000 in April 2001 to finance a house purchase. Linda fixed her mortgage at the five-year 7.5% rate, which led to monthly payments of \$799. Shelly borrowed at the floating rate of 6.5%, but decided to make monthly payments of \$799, identical to Linda's. Note that Shelly's interest clock was ticking at the variable (prime rate), so as rates fell from 6.5% to 4% in March 2004, her debt was declining and being paid back at a faster rate than Linda's. In fact, at the end of three years, the principal outstanding on Linda's mortgage was \$92,644 compared to Shelly's \$84,424, even though they both made the exact same monthly mortgage payments!

Note, too, that Shelly paid \$13,173

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in interest payments during the last three years, which is \$8,221 or 40% less than Linda's \$21,394 in interest payments. They both paid a total of \$28,749 but the split between interest and principal was different.

Furthermore, if Shelly's VRM was left open, she gained the additional benefit of being able to pay down her mortgage with extra cash at any time, without penalty. This particular feature is hard to quantify, but extremely valuable over the long run.

Even if your client did not follow Shelly's precise strategy of making artificially higher mortgage payments, and instead made payments based on the fluctuating variable rate applicable for that month, the effective present value of her savings would be \$8,221 per \$100,000 of mortgage principal. In

addition, if she were able to negotiate a loan at prime minus 75 basis points (not uncommon for those who *closed* their floating mortgage over the term), the current outstanding balance would be approximately \$82,000 and the savings from the floating rate would be closer to \$10,000.

Against this backdrop, most financial commentators have interpreted recent remarks by the Bank of Canada to imply we have reached the bottom of the interest rate cycle and the next move will inevitably be up. Some of your clients have likely asked you whether the time is right to lock in a mortgage, since it is estimated that over 30% of Canadian have VRMs. While you might feel your mandate lies on the asset side of their balance sheet, this is a great opportunity to implement total asset allocation with your client and provide some

guidance on prudent debt management.

Many mortgage borrowers mistakenly believe there is only one interest rate to be considered, one which goes either up or down based on the Bank of Canada's actions. Quite distinct from the price of gold or the U.S. dollar exchange rate, there is an entire collection of different interest rates (called a yield curve) which can move in very different directions on any given day. For example, on Monday, short-term (money market, T-bill) rates can decline while long-term bond yields can increase. On Tuesday the reverse could be true. These rates correspond to different terms on a loan. If clients borrow money for one year they might pay 3% per year, but if they borrow for 10 years it will be 6% per year.

Lenders prefer to issue loans that are

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VRM

Assume you took out a **VRM** in April 2001,
but made fixed monthly payments based on the five-year fixed rate:

Payment Based on Interest Rate (s.a.)	7.500%
Periodic Rate (monthly)	0.6155%
Mortgage Principal	\$100,000
Amortization Period (years)	20
Monthly Payment	\$798.60

DATE	VRM RATE	MONTH	OWING (START)	INTEREST (PLUS)	PAYMENT (MINUS)	OWING (END)	INTEREST RATIO
APR 01	6.50%	1	\$100,000	\$550	\$799	\$99,752	68.9%
MAY 01	6.25%	2	\$99,752	\$528	\$799	\$99,481	66.1%
JUN 01	6.25%	3	\$99,481	\$526	\$799	\$99,209	65.9%
JUL 01	6.00%	4	\$99,209	\$503	\$799	\$98,913	63.0%
AUG 01	5.75%	5	\$98,913	\$481	\$799	\$98,596	60.2%
SEP 01	5.25%	6	\$98,596	\$437	\$799	\$98,234	54.7%
OCT 01	4.50%	7	\$98,234	\$373	\$799	\$97,808	46.6%
NOV 01	4.00%	8	\$97,808	\$329	\$799	\$97,339	41.2%
DEC 01	4.00%	9	\$97,339	\$328	\$799	\$96,868	41.0%
JAN 02	3.75%	10	\$96,868	\$306	\$799	\$96,375	38.3%
FEB 02	3.75%	11	\$96,375	\$304	\$799	\$95,880	38.1%
MAR 02	3.75%	12	\$95,880	\$302	\$799	\$95,384	37.9%
APR 02	4.00%	13	\$95,384	\$321	\$799	\$94,906	40.2%
MAY 02	4.00%	14	\$94,906	\$320	\$799	\$94,427	40.0%
JUN 02	4.25%	15	\$94,427	\$338	\$799	\$93,967	42.3%
JUL 02	4.50%	16	\$93,967	\$356	\$799	\$93,524	44.6%
AUG 02	4.50%	17	\$93,524	\$355	\$799	\$93,081	44.4%
SEP 02	4.50%	18	\$93,081	\$353	\$799	\$92,635	44.2%
OCT 02	4.50%	19	\$92,635	\$351	\$799	\$92,188	44.0%
NOV 02	4.50%	20	\$92,188	\$350	\$799	\$91,739	43.8%
DEC 02	4.50%	21	\$91,739	\$348	\$799	\$91,288	43.6%
JAN 03	4.50%	22	\$91,288	\$346	\$799	\$90,835	43.3%
FEB 03	4.50%	23	\$90,835	\$344	\$799	\$90,381	43.1%
MAR 03	4.75%	24	\$90,381	\$362	\$799	\$89,945	45.3%
APR 03	5.00%	25	\$89,945	\$379	\$799	\$89,526	47.5%
MAY 03	5.00%	26	\$89,526	\$378	\$799	\$89,105	47.3%
JUN 03	5.00%	27	\$89,105	\$376	\$799	\$88,682	47.1%
JUL 03	4.75%	28	\$88,682	\$355	\$799	\$88,239	44.5%
AUG 03	4.75%	29	\$88,239	\$353	\$799	\$87,793	44.3%
SEP 03	4.50%	30	\$87,793	\$333	\$799	\$87,328	41.7%
OCT 03	4.50%	31	\$87,328	\$331	\$799	\$86,860	41.5%
NOV 03	4.50%	32	\$86,860	\$329	\$799	\$86,391	41.2%
DEC 03	4.50%	33	\$86,391	\$328	\$799	\$85,920	41.0%
JAN 04	4.25%	34	\$85,920	\$308	\$799	\$85,429	38.5%
FEB 04	4.25%	35	\$85,429	\$306	\$799	\$84,936	38.3%
MAR 04	4.00%	36	\$84,936	\$286	\$799	\$84,424	35.8%

	Interest Paid	Total Payments	Debt Reduction	Int. Ratio
Total	\$13,173.18	\$28,749.68	\$15,576.49	45.8%

Note: In calculations, VRM interest assumed nominal with semi-annual compounding, akin to fixed rate mortgage.

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renegotiated over shorter periods of time, while borrowers favour extended commitments. To induce these reluctant lenders to give up their precious funds for longer, the interest rates (or rent) on extended term loans are usually higher to compensate for the extended lock-up. Borrowers who are willing to accommodate the lender's natural desire to keep the money on a short leash, and who agree to short-term loans, will gain a financial edge over the long term. This is true even in today's low interest rate and low inflation rate environment, since lenders are even more reluctant to make longer term commitments (nominal, i.e., non-inflation adjusted). Like all things financial, however, risk and return are inseparable partners.

Advocating a VRM is not predicated or based on a speculative (bearish) bet on interest rates. It should depend on clients' tolerance for risk—the same concept used in traditional asset allocation—and their ability to withstand increases in mortgage payments.

Can your clients afford to pay \$200 to \$300 more per month in a worst-case scenario? Is there enough slack in their monthly budget to make up the shortfall? Do they have other investments that might increase in value

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if interest rates increase?

Generally, I see four distinct financial personalities, each of which should be doing something slightly different.

❶ **The first-time homebuyer**, especially those who placed minimal down payments with high leverage ratios, is the ideal candidate for long-term fixed rate mortgages. People in this category should not be taking any chances with a fluctuating interest rate. In fact, they might be hit with a double whammy if the value of their (overpriced) house declines leaving them with negative equity. To them you should say, “Count your blessings, don’t be greedy and lock in a fixed rate.”

❷ **The risk-averse worrywart**, who is constantly looking at interest rates, should do what all risk-averse investors

should do: diversify. There is a strong argument for diversifying mortgage debt, similar to the prudent strategy with an investment portfolio. In general, diversifying your debts is a silly idea since clients should put all their eggs in

the one basket with the lowest interest rate. I am willing to concede that split-rate mortgages have some merit in today’s ultra-low interest rate environment. This is true debt allocation and the ideal strategy is to partition the



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mortgage in two parts, one linked to a variable rate and the other closed for a longer period of time. The exact ratio should depend on cash-flow assessment and the odds on whether your client will have any cash sitting in their bank account that can be used to pay down his mortgage.

③ **The seasoned veteran**, possibly with two stable breadwinners in the family and a substantial amount of built-up equity in the house, should still follow Shelly Short's strategy. He can afford the risk and continue with a VRM, making payments based on a high fixed-rate schedule. This is an easy way to think he can have his cake and eat it, too. From a psychological point of view, if and when interest rates do (finally) start to increase, it should have no noticeable impact on the monthly budget, as long

as the client makes payments based on an interest rate that is 2% to 3% above the initial floating rate.

④ **The financially savvy arbitrageur** can do even better. Most banks allow you to pre-approve a fixed rate mortgage for between 90 and 120 days. They are guaranteed the pre-approved rate regardless of what happens to mortgage rates over the next three to four months. This is the closest thing to a free lunch you will ever get from a Canadian bank. If they have a floating (open) rate mortgage that allows them to pre-pay any amount any time without penalty, then encourage them to walk across the street to their bank's competitor and ask for a pre-approval on a five-year fixed rate mortgage. Then, keep a close eye on the Bank of Canada and the bond market. If rates increase

tomorrow, they should exercise their free option and move their mortgage across the street, at yesterday's rate. Otherwise, they should do nothing and start the process over in a few months. Understandably, the branch manager might get a bit weary.

One last thing, for the record. I currently have an (open) VRM, and I have absolutely no intention of locking in, at least for now. **AE**

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