

FRIEDBERG'S

COMMODITY & CURRENCY COMMENTS

Friedberg Commodity Management Inc.



Volume 8, No. 2 February 15, 1987

Owe Canada

Being right on the fundamentals and wrong on the market is not our first choice. Clearly, if we had to choose, we'd rather be *wrong* on the fundamentals and *right* on the market. Nevertheless, for the proud advisory and money management service that we are, there might still be more style and solace in the former alternative.

We are referring, of course, to the Canadian dollar. We made an airtight, or so we thought, bearish case in early 1986 (see *FC&CC*, Feb. 23, 1986) and reconfirmed it as late as November 1986 (*FC&CC*, Nov. 16, 1986) with that characteristic blast of bravado: "The bear case is getting stronger. Canada's net foreign indebtedness is rising at a time when tax rates favor Southward-bound capital flows, terms of trade remain depressed, and inflation is running higher than the US. Timing is essential, as forward discounts are quite substantial. We favor buying at-the-money puts and simultaneously selling slightly out-of-the-money calls. Otherwise, sell June '87 Canadian dollar and place stops at 72.60, basis spot." Our saving grace: "Place stops at 72.60, basis spot." We are embarrassed but stopped out, relatively unscathed, at 72.60 before the Canadian dollar rocketed upwards to a recent 75.50.

What went wrong? First, what went right? We projected a 1986 current account deficit of \$10.2 billion (a gutsy call, that, considering the nearly balanced books for 1985). Then we "uncovered" a statistical discrepancy of \$8 billion, "statistical discrepancy" being a euphemism for unrecorded capital flight. (Wrong. Canada still was a relatively safe place to keep your money, and "only" \$4.5 billion crossed the border). Finally we projected an outflow related to *net direct* foreign investment of \$5 billion. (Wrong. It looks like closer to \$2.5 billion, thanks to some relatively large foreign investment in Canada, although it should be noted that direct investments *abroad* continue to run at slightly more than \$1 billion per quarter.)

We assumed that the Bank of Canada would continue to see its net international reserves fall by \$3.5 billion so that short-term anticipated non-resident financing would approximate \$20 billion (i.e., $10.2 + 8 + 5 - 3.5$). Such a grotesque sum could be financed only by a combination of substantially higher interest rates and a downward depreciation of the Canadian dollar.

Because the Bank of Canada's net official reserves fell

by only \$1.3 billion, the estimated financing gap was in fact reduced to \$15.7 billion, not \$20 billion. Two comments are in order: First, the statistical series are highly tentative and erratic and therefore they are likely to be revised substantially in months to come. Second, a \$15.7 billion gap was still the second largest balance of payment gap in Canada's history.

The question is, how was the gap financed? The answer: largely through net foreign purchases of Canadian long-term debt issued by the federal government, the provinces, and corporations. In the second half of 1986 and early 1987, Japanese buying accelerated, with estimates of inflows ranging to more than \$6 billion. This compressed and gigantic buying program helped Canada offset its foreign financing deficit and, in fact, caused a substantial \$2 billion surplus in January 1987, launching the Canadian dollar upwards by 4% vis à vis the US unit and taking it to the highest level in 18 months.

The fundamentals were correct: a huge *ex ante* financing gap (although, admittedly, 20% short of the projection), and a large and persistent interest rate differential (an average 0.73 three-month forward spread premium for the US dollar compared with 0.44 for 1985 and 1984, and the highest since 1976). The upshot, a significant increase in foreign debt, now exceeding \$200 billion, or 40% of GNP. And yet, the Canadian dollar managed to rise, posting a 1.2% average rise for the year. (Strangely, measured by the average noon rate, the Canuck buck actually fell 1.8%.)

How come? Perhaps, the interest rate differential was too large, especially at the long end of the market (see Chart 4). Perhaps the Japanese, in an effort to diversify away their portfolios from the extraordinary concentration of US Treasury bonds, chose a second dollar exposure. A politically guided decision (cap exposure to an increasingly hostile government and increase leverage vis à vis an important trading partner)

In this issue

Crude oil: nowhere to go but down, and we stay, yes, short.
Stock indexes: the final phase of the bull begins, so we go long for the rocky ride. Interest rates: soaring soon, and we're short. Friedberg Capital Markets on the case for zero coupon bonds. Contributions by Albert D. Friedberg, Steve H. Hanke, Daniel A. Gordon, and Michael D. Hart.

with a slight economic payoff (a respectable 100-200 points yield pick-up). If so, this process may continue for some time, although perhaps not at the speed nor with the concentrated force that it has developed so far.

We are suggesting that perhaps more than market forces are at work in this buying program, and therefore, in the near term, we may not be able to arrive at a rational conclusion.

If positive economic perceptions are at work, and some savvy financial observers have suggested a number of reasons, we are confident some useful statistics and the course of the next months will thoroughly discredit these notions.

First, it has been argued that the Canadian dollar, on a purchasing power basis, is grossly undervalued. We ran two sets of series, one using a comparison of hourly wages in manufacturing; the other using wholesale prices. Mindful of the gross potential inaccuracies contained in these statistical series, we found that through the second quarter of 1986, the Canadian dollar had fallen, in real terms, by anywhere between 1.8% and 3.2% since 1979, hardly a major undervaluation. Interestingly enough, the nominal value of the C-buck has gained about 3.3% since the second quarter of 1986, thus possibly recouping the entire undervaluation. At any rate, there is no room, in this calculation, to hang one's bullish hat.

As to the widely bandied about argument that a prospective improvement in the prices of raw materials would favorably impact Canada's balance of trade, we have three counter arguments. First, the *fact* is that Canada's terms of trade have been on a decline since 1980 (see Chart 2), and there is little reason to think that Canada's dollar traders enjoy more clairvoyance than commodity-traders with regard to future prospects. Second, the seven year deterioration in the country's terms of trade has not correlated at all with the country's

trade balances (see Chart 3), which began to deteriorate badly beginning only in early 1985. Supporting this argument is the fact that the net balance of commodities (exports minus imports) is only \$27 billion (down from \$31.4 billion in 1984 and about equal to the \$27.7 billion of 1983), or approximately 22.5% of exports. A major 10% improvement in internal raw materials would represent a net gain of only \$2.7 billion, on unchanged volumes, hardly a figure to write home about. Finally, in view of our *own* views of the direction of oil and gas prices (down, down, down, if you did not know it yet), we doubt that Canada's terms of trade will be materially improved in the coming year.

Having disposed of the purchasing power and terms of trade arguments, we return to the trade figures: They seem to react positively to the differential rate of economic growth of Canada versus its trading partners. Chart 3 demonstrates that rates of real income growth and their effect on total spending, primarily between the US and Canada, are quite relevant. If so, and based on OECD forecasts, Canada's balance of trade for 1987 is not expected to deteriorate further. The current account deficit, however, will widen, a result of higher non-merchandise outflows (such as interest on the foreign debt).

As a result, the foreign financing gap for 1987 threatens to, once again, necessitate large interest rate differentials and/or a currency depreciation...

Subject, of course, to a continuous politically-induced Japanese portfolio reshuffle. Sooner or later, however, the realities of a growing foreign debt will dawn on the market, and Canada will undergo a severe foreign exchange crisis.

STRATEGY: Sell June '87 Canadian dollar at market; place stops at 75.60, basis nearby, good anytime.

Chart 1

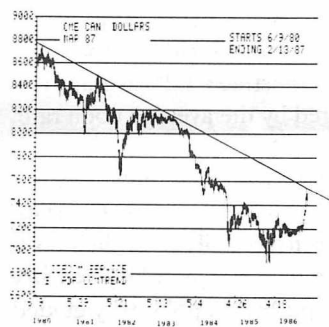


Chart 2

Year, quarter and month	terms of trade Constant-weighted (Laspeyres) index
1972	95.3
1973	100.9
1974	108.2
1975	104.1
1976	103.4
1977	100.7
1978	97.1
1979	102.6
1980	106.4
1981	100.0
1982	97.3
1983	97.3
1984	95.8
1985	93.7
1982 III	96.8
1982 IV	97.3
1983 I	96.9
1983 II	97.3
1983 III	97.3
1983 IV	96.7
1984 I	97.2
1984 II	96.7
1984 III	95.3
1984 IV	94.0
1985 I	93.9
1985 II	94.1
1985 III	94.2
1985 IV	92.3
1986 I	90.6
1986 II	92.3a
1986 III	92.0a
1985 N	92.3
1985 D	91.4
1986 J	90.6
1986 F	90.1
1986 M	91.7
1986 A	92.3a
1986 J	92.1a
1986 J	92.7a
1986 A	92.4a
1986 S	92.0a
1986 O	91.7a
1986 N	91.9
1986	91.4

Chart 3

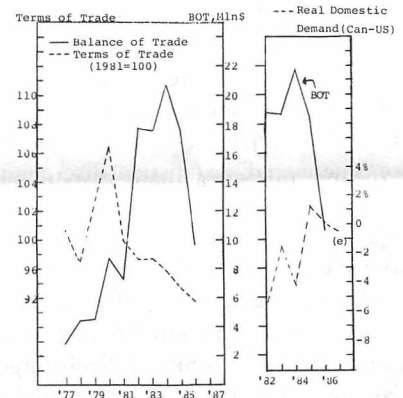
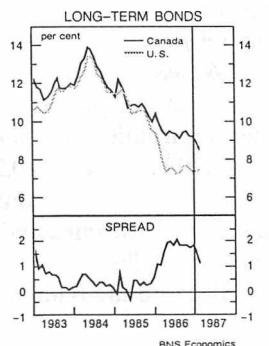


Chart 4



Crude Oil

Take the money and run

Governmental spokesmen and financial analysts have been oversupplying us with atmospherics about the new OPEC agreement. To redress this imbalance, we offer some crude analytics.

The economic production rate for oil is determined by the following equation: $P - V = MC$, where P is the market price of a barrel of oil, V is the present value of a barrel of reserves, and MC is the marginal recovery cost of a barrel of oil.

With this simple model for the economics of depletable resources, we demonstrate that for Saudi Arabia — which has 35% of OPEC's capacity and holds the key to any viable cartel arrangement — oil in the ground is not worth more than money in the bank. In fact, for the Saudis to maximize the value of their oil resources, they should dramatically increase the rate at which they liquidate their oil reserves.

To understand the economics that will force the Saudis to increase their production, we must understand any forces that might tend to raise the Saudis' (and other producers') discount rates. To determine the present value of a barrel of reserves (V in our production equation), we must forecast the price that would be received from liquidating a barrel of reserves at some future date and then discount this price to present value. In consequence, when the discount rate is raised, the value of reserves (V) falls, the gross value of current production ($P-V$) rises, and increased rates of current production are justified.

When it comes to the political instability in the Middle East, the popular view is that increased tensions in the region will reduce oil production. Economic analysis suggests that the tensions will actually work to increase oil production.

Let's suppose that the real risk-adjusted rate of discount, without any prospect of property expropriation, is 20% for the Saudis. Now, consider what happens to the discount rate if there is a 50-50 chance that a belligerent will overthrow the House of Saud within the next 10 years. In this case, in any given year, there would be a 6.7% chance of an overthrow. This risk to the Saudis would cause them to compute a real risk-adjusted rate of discount, with the prospect of having their oil reserves expropriated. In this example, the relevant discount rate would increase to 28.6% from 20%. (See Chart 5 for alternative scenarios.) This increase in the discount rate will cause the present value of reserves to decrease dramatically. For example, the present value of \$1 in 10 years at 20% is \$.16, while it is worth only \$.08 at 28.6%. The reduction in the present value of reserves will make increased current production more attractive because the gross value of current

production ($P-V$) will be higher.

Many, of course, will find these analytics amusing in the context of the Middle East. They perceive the OPEC nations as being run by arm-waving wild men who are "above" economic calculus. Economics are wildly complex, but still economics. For example, even in Iran, economics are at work. During the Shah's days, those holding top jobs in the government skimmed 2%-3% off contracts. Now, under Ayatollah Ruhollah Khomeini, the risk of being sacked for political reasons is higher, and top government employees have increased their discount rates. In consequence, they are now skimming 10% or more off most contracts.

High real discount rates of around 20%, which are being pushed higher by the threat of expropriation, will ultimately cause the more than 5,000 princes in Saudi Arabia to convince King Fahd that it is in the Kingdom's best interest to apply a sort of "take your money and run" approach to oil production. This will require the Saudis to more than double their current output to about 9 million barrels a day (b/d), which is their current capacity. It also will require the Kingdom to dust off its plans for development of new capacity. Since only 15 of the 50 known commercial oil fields in Saudi Arabia have been developed, the Saudis could easily push their capacity to 23 million b/d by 1995. This increase in capacity would be very attractive because it would cost only \$.62 per barrel to develop and operate (see: *FC&CC* May 18, 1986).

When the Saudis begin to increase their production and develop new capacity, it will signal the beginning of a transi-

Chart 5

Risk adjusted discount rates without and with the prospect of expropriation		
Probability of Expropriation	Risk Adjusted Discount Rates Without Prospect of Expropriation	Risk Adjusted Discount Rates With Prospect of Expropriation
50% chance within 20 yrs.	20%	24.2%
50% chance within 15 yrs.	20%	25.7%
50% chance within 10 yrs.	20%	28.6%
75% chance within 20 yrs.	20%	28.6%
75% chance within 15 yrs.	20%	31.6%
75% chance within 10 yrs.	20%	37.8%

Example of calculation with 50% chance of expropriation within 20 years:

Step 1
 Compute the probability of not having property expropriated in each of the 20 years:
 $\frac{1}{20}$
 $(0.5) = 0.9659$.
 and the probability of having property expropriated in each of the 20 years:
 $(1-0.9659) = 0.034$.

Step 2
 Compute the risk adjusted discount rate with the prospect of expropriation:
 $r = (0.20 + 0.034)/(1-0.034) = 24.2\%$.

tion towards a more competitive world oil market. This will be accompanied by an oil development boom in low-cost areas. In consequence, there will be a massive growth in the capacity of OPEC countries. For example, according to calculations made by Professor M. A. Adelman of the Massachusetts Institute of Technology, the cartel countries, including Saudi Arabia, could push their capacity to 63 million b/d by 1995 from its current 28 million b/d, and 80% of this new capacity could be developed and operated at between \$.30 and \$.68 a barrel, with none of the new capacity costing more than \$4.66 a barrel.

Competitive markets will induce more production and a gradual shift in production from high-cost to low-cost regions. This will result in much lower prices, something in the neighborhood of \$5 a barrel.

The so-called oil glut of 1986 was not an anomaly. It was symptomatic of a permanent "oversupply" situation, one that promises to exert unyielding downward pressure on oil prices.

— Steve H. Hanke

And in the short run...

Crude oil prices have fallen \$1.50/barrel in recent weeks, led by significant weakness in gasoil quotes (down to \$143-\$145/tonne from \$180/tonne in early January). As a result, refining margins (the "crack") have eroded substantially (see Chart 6) and are likely to put further downward pressure on crude prices.

Market observers have pointed to some cheating by member countries (particularly the UAE and Kuwait — the "take your money and run" syndrome?), which has raised OPEC production to 16.8 million barrels per day (b/d) in late January and early February, causing the slippage in prices. If our analysis is correct, however, the more likely reason for the weakness is the inability of the market to absorb *product* at these prices — a far more worrisome development for the Cartel.

In a blatant attempt to talk up prices, the Saudis announced a multi-year deal to sell 1.1 million b/d of oil at \$18/barrel to Aramco. Not until a few days later was it revealed that Aramco could practically back out any time it felt the price was "too high" in relation to the market.

Moreover, to the extent that Aramco failed to take up this allotted amount, the Saudis — assuming they would play by the rules and stick to agreed prices — would become, once more, OPEC's swing producer. Total production would then fall to approximately 3.1 million b/d, resulting in export revenues of only \$14 billion/year. The Saudis budget deficit would then widen a further \$3 billion (see Saudi riyal in "The Exotics"), bringing them one step closer ("sooner" is a better choice of words) to bankruptcy.

We have said it many times before: The Saudis cannot afford to play this game. As soon as this elementary notion

began to dawn on Sheikh Yamani, he was replaced. It should not take too much longer for the new appointee to face the stark reality: Saudi Arabia must produce at maximum capacity and at full speed. Not only will this strategy maximize the value of the Saudi reserves (see preceding article) but it also will a) recoup market share, b) eliminate high cost producers and further exploration, c) boost consumption, in the long run, and d) defeat Iran.

On this last subject, it appears that the Iranian offensive has been stalled, although it is clear that they have consolidated recent gains. Short of another renewed drive, this time north of present positions, it is likely that the conflict will drag for quite some time yet. This may be the reason for the market's apathy to war news.

STRATEGY: Remain firmly short. Aggressive hedgers should purchase NY crude oil puts; less aggressive hedgers should sell \$18 and \$19 calls, earning substantial premiums.

Chart 6

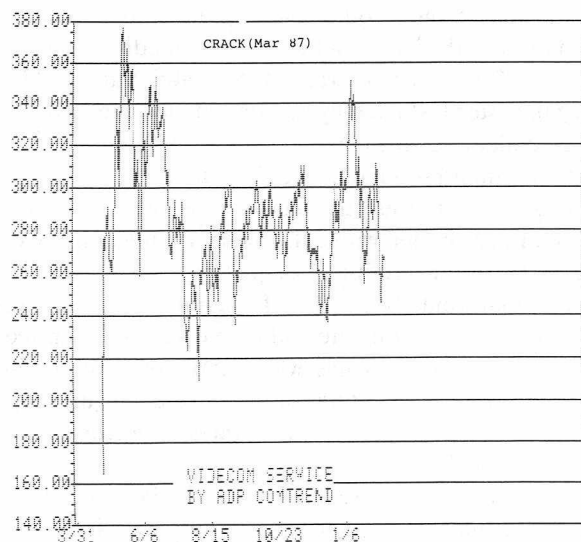
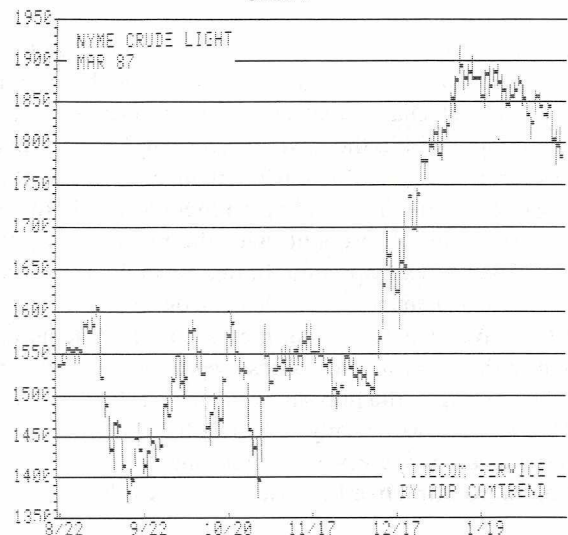


Chart 7



Stock Indexes

In the latter stages of frenzy, the market is well able to shrug off any kind of bad news, despite the ever growing vulnerability built into the lofty price level.

Price-earnings ratios range from 18.4x for the Dow Jones Industrials to 18.66x for the S&P 500 and 20.18x for the S&P 400 — all historically high levels; dividend yields range from 3.08% to 3.06% to an incredible 2.65%, respectively, amongst the lowest on record. Moreover, when adjusted for current money market and bond interest rates, these dividends may well be the lowest in history. Unless Nirvana is around the corner, stocks are overvalued by a phenomenally wide margin.

Unrealistic high valuations leave little room for disappointments. And the list of *potential disappointments* grows daily: a looming trade war (see "Trade Winds" elsewhere in this issue) and its consequent disastrous effects on standards of living; the collapsing dollar, a sign of living beyond one's means (see *FC&CC*, Jan. 25, 1986); and the *inevitable* economic adjustment that *must* bring in its wake sharply higher interest rates; the approaching end to debt renegotiations (Brazil is just about ready to blow the whistle) with the implications for international trade, banking confidence, and the *socialization of bailout costs*. Related to the above, we can add the accelerated pace of banking failures, *now exceeding 4.1 banks per week* compared with a "mere" 2.2 in early 1986 and the addition of *one bank per day* to the Comptroller of the Currency's problem list (now exceeding 10% of the entire banking system). And again, related to the above, we can't ignore the FSLIC's (the Federal Savings and Loan Insurance Corporation, a sister company to the FDIC) lack of funds to close permanently a growing number of S&L's that are incurring losses at a rate of almost \$7 million per day and which

threaten to exhaust FSLIC reserves before year-end.

Although these *facts* are known (in very much the same way as the Mexican facts were known before the 1982 crisis), their implications have not been properly thought through. Will they force a gigantic monetization scheme and subsequent runaway inflation? Or will asset liquidation spread through the system, causing a serious deflation? Alternatively, it could be neither inflation nor deflation but sharply higher taxes to help clean up the mess. Any one of these scenarios should cut multiples in two.

Secondary stocks continue their largest relative bear market in recent memory. Chart 8 shows a steady decline from mid-1983 to the present, a 26% relative drop in three and a half years. While at one time we favored the long Value Line/short S&P spread (see *FC&CC*, Sept. 21, 1986) and believed that *regardless* of market direction it would improve, we now are ready to concede the all-too-obvious: the aging bull market is not likely to broaden its appeal and, therefore, the spread will improve only on the next decline. While we have been out of this position for a number of months, we still believe it deserves attention — perhaps as an indicator of the ultimate market top.

STRATEGY: *Having identified this advance as the final phase of the 1974-1987 bull market, we assumed that the advance will be unusually rapid and violent, providing an excellent opportunity for nimble traders to capitalize on the long side (a game of musical chairs, or the "Greater Fool" theory)!*

Having gone long the March '87 S&P at 276.40 (see Hotline Update, Feb. 2), we will try to enjoy the rocky ride, placing stops at 274.00, close only.

Chart 8

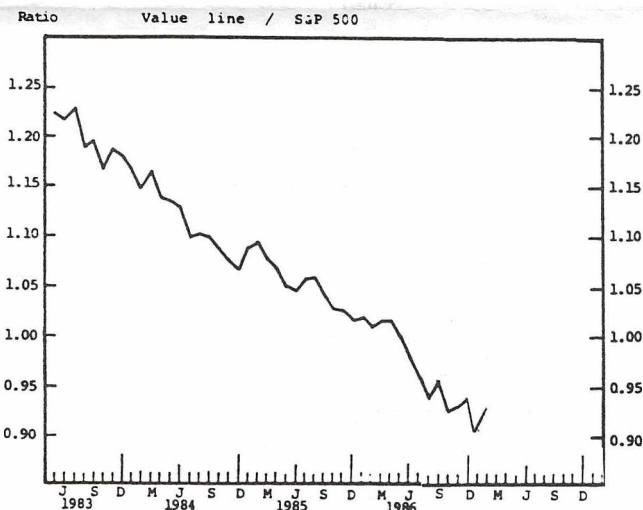
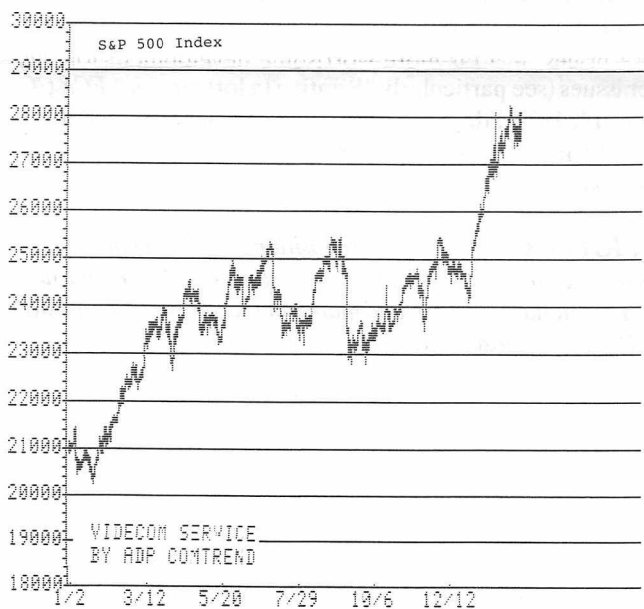


Chart 9



Currencies

The free-fall in the US dollar has been cut short by a combination of the disclosure of some improvement in the trade balance for January '87 and December '86 and the possibility that the G-5 may meet once again to reach an accord on rates.

The US seems to be moving ever closer to a concept of a target zone, having already implemented just such a deal with Japan. As we suggested in an earlier issue, (Bretton Woods II, *FC&CC*, Oct. 22, 1986), the psychological value of a "target zone" deal is far greater than the actual benefits. This, in fact, seems to be the dispute between the US and Germany. The pragmatists at the US Treasury, bent on cosmetics and political solutions, favor an accord coupled with a strong dose of reflation for Japan and West Germany. The Japanese, for lack of alternatives and facing a horrendous depression in their export industries, have agreed to a tentative, unofficial 150-165 range.

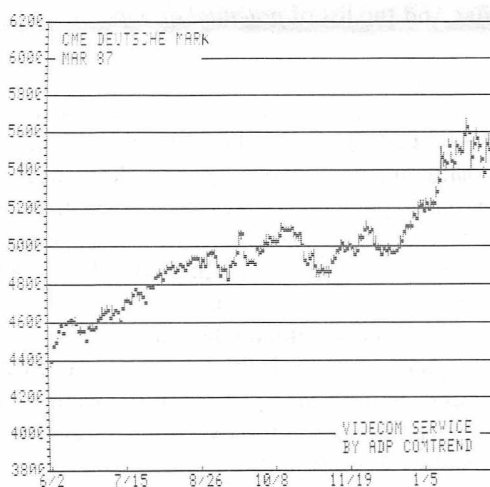
The West Germans, well aware that the culprit is the extremely expansive US fiscal and monetary stance, refuse to play ball, as it would commit them, eventually, to intervene massively at whatever level is set as the lowest permissible point in the band or target zone. They would thus be forced into *importing US inflation*. The Bundesbank would lose control over its own monetary policy.

The sharp deceleration in fourth quarter West Germany GNP may yet persuade the German authorities to relent and apply a more vigorous dose of reflation. If so, they would be ready to reach what will probably be hailed as an historic

accord but which, in fact, will turn out as disappointing as the Austral and Cruzado plans. Near term, money and stock markets will be given a further boost, while the US\$ could firm, initially, to the top of the band (1.95 DM?).

STRATEGY: As our Hotline Update record makes clear, we accepted substantial profits on our total long Swiss franc and DM positions, one half of them at practically the highs. We are sidelined, awaiting developments.

Chart 10

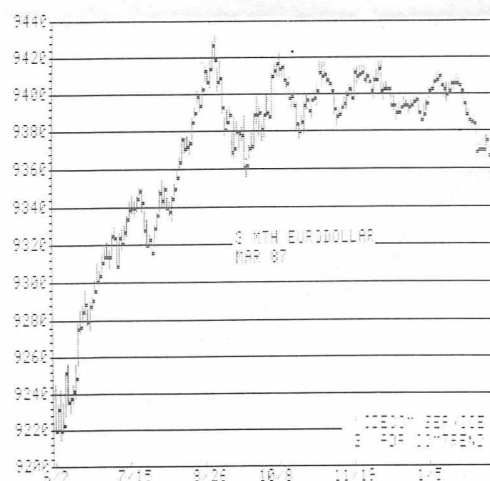


Interest Rate Futures

The dollar crisis has begun to affect interest rates. Three-month Eurodollar rates have climbed to 6 9/16% in recent days despite an aggressively easy Fed. As pointed out in earlier issues (see particularly "Printing (a lot) money," *FC&CC*, Dec. 14, 1986), the time is rapidly approaching when a foreign exchange crisis will overwhelm the Fed: Interest rates will soar.

STRATEGY: Retain short positions in March and June '87 Eurodollar and US T-bonds. Lower stops on March and June '87 Eurodollars to 94.10, and maintain March '87 T-bonds, stop at 102.05, all close only.

Chart 11



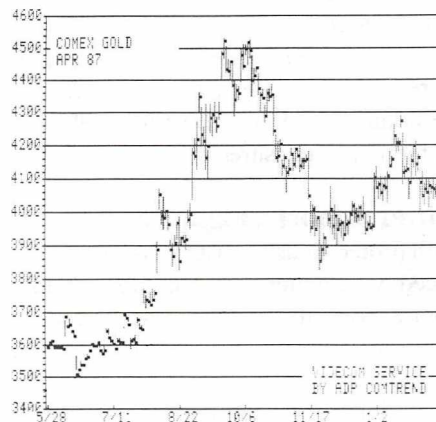
Precious Metals

Who ever said that base-firming is a fun process? Sluggish, tiring but, in the end, rewarding to the patient investor.

STRATEGY: Maintain stops at 480, basis April '87 platinum and 5.39, basis March '87 silver (roll over to July '87 and raise stops 12¢/oz.), close only.

Traders may wish to stop long April '87 gold at 395, good anytime, looking to buy back at \$376-\$380/oz. Long-term investors should place stops at 375, close only.

Chart 12



Trade winds

With the trade winds that are fanning the protectionist flames in Washington, DC, it appears certain that a trade bill will be passed by year's end. After all, Senator Lloyd Bentsen, chairman of the Senate Finance Committee, and Congressman Dan Rostenkowski, chairman of the House Ways and Means Committee, both want a trade bill, and the Reagan Administration is amenable to some sort of compromise bill.

What's not clear are the precise details of a bill. Currently, the sharpest divisions between the Administration and Congress concern two key sections (201 and 301) of the Trade Act of 1974. Congress has been trying to tighten up these sections for years. For its part, the Reagan Administration has been resisting. However, with the loss of control in the Senate, the Republican Administration now finds itself in a weakened position. In consequence, it has displayed some interest in openly compromising with Congress on a trade bill.

For example, in Section 201 — the so-called escape clause, which allows the President to impose tariffs or quotas on imports that are hurting US firms — the Administration has offered two changes. First, it has proposed to make it easier for firms to qualify for protection during recessions. Its second proposal, however, would actually tighten Section 201: To qualify for protection at any time, an industry would have to demonstrate that it could compete effectively after temporary tariffs or quotas were lifted.

Congress wants to tighten Section 201. It wants to limit the President's discretion to grant or deny protectionist relief, once an industry has shown that imports are causing serious harm. In short, Congress wants to eliminate the President's ability to drag his feet on Section 201 cases.

Section 301 of the Trade Act of 1974 deals with countries that close their markets to the US. The law does not mandate that the President take action against countries that close their markets. Congress wants action mandated. One of the more extreme proposals has been introduced by Con-

gressman Richard Gephardt. His bill would require certain countries to reduce their trade surpluses with the US or face mandatory protectionist measures.

Mega-compromise could result

While we don't pretend to know the precise details of a trade bill, our sense is that it will be a mega-compromise between the Congress and the Administration. Although it will make trade less free, it won't represent a sharp departure from current policy. As such, it will be hailed by pundits in the press as a great victory for the American people. On the one hand, they will be able to sleep more soundly, knowing that international trade will be conducted on a fairer basis, while on the other, they will breathe a sign of relief, knowing that the evils that accompany outright protectionism have been avoided.

We should mention that the most protectionist measures in a trade bill will not be contained in its main body, but will be found in amendments. This is where skilled politicians work their magic. Amendments are difficult to anticipate because they address specific "problems" and are inserted at the last minute. Their consequences often are even more difficult to predict because they go well beyond the confines of the problems being addressed by the amendments. An example will illustrate this point.

Senator Russell Long of Louisiana slipped an amendment into the Trade Act of 1974 to assist one company, Texas Gulf Sulfur. However, this amendment has had far reaching consequences. It defined foreign dumping as imports that were priced below fully allocated costs plus an 8% profit. (Note that this is even a tougher test than the Anti-Trust laws, where sales are considered "predatory" when they are priced below average variable cost.)

With this amendment and definition of dumping, various administrations have been "forced" to impose protectionist policies because they knew that companies could win

dumping cases by using the Texas Gulf Sulfur amendment. For example, it was this leverage that the steel industry used to have the protectionist trigger price mechanism put in place. Now the semi-conductor industry is leaning on the Long amendment in hopes of gaining relief.

Even though we don't anticipate a sharp departure from current policy, it is worth recalling the probable course that the dollar would take if a trade bill did contain tough new protectionist measures.

Lower imports, higher dollar

With protectionist measures, America's imports would be reduced. Consequently, the number of dollars foreigners earn from exports to the US would be reduced from what they would have been. This means that fewer dollars would be available on foreign exchange markets. However, the number of dollars that foreigners would want to purchase — either to invest in the US or to buy American goods and services — would initially remain essentially unchanged. Faced with these conditions — a stable demand for dollars and a reduced supply of dollars — the price of dollars must rise in relation to

what it was without protectionist measures. (It should be emphasized that this analysis of the initial effect of protectionism on currency markets indicates only that with protectionism, the price of the dollar would initially be higher than it would have been without protectionism.)

The initial protectionist-induced strength of the dollar might not last for long, however. America's trading partners would probably retaliate against US protectionism with protectionism of their own. This would cause (for the same reasons as those given in our analysis of the dollar) the value of the foreign currencies to rise in relation to where they would have been without retaliatory protectionism. This means that the value of the dollar would fall in relation to where it would have been without retaliatory protectionism.

The final outcome of a trade war on the course of the dollar is ambiguous. It would depend on the protectionist moves and counter moves. One thing is, of course, not ambiguous: A trade war would reduce global output, trade, and standards of living.

— Steve H. Hanke

The Exotics

Saudi Arabian riyal

The long awaited Saudi Budget was finally unveiled by King Fahd in Riyadh on December 31. The budget had been postponed a full nine months before the official date, due to the extraordinary uncertainty surrounding oil prices and output. In the future it is anticipated that the fiscal year will parallel the Gregorian calendar.

The surprising element in the budget was the extremely high forecast of expenditures. Put at 170 billion riyals, 6% less than in the 1985-1986 fiscal year ended March 1986, it was substantially higher than the 140 billion riyals most analysts had predicted in the run up to the announcement. Clearly the Saudi monarchy was becoming extremely concerned with the falling level of economic activity, and was prepared to use Keynesian pump-priming measures to quell social dissatisfaction.

Analysts estimate that the 1985-86 deficit was approximately US \$19.5 billion. Reliable reports indicate that Saudi Arabia's reserves amounted to approximately US \$100 billion at the end of May 1986, of which only perhaps no more than 50% was in liquid form (the balance in questionable assets such as loans to Iraq). Working backwards to the most recently published official figures on reserves, we believe that liquid reserves at the end of May 1986 amounted to no more than US \$40 billion. In the intervening months since May 1986, reserves probably fell by a further US \$11 billion.

The official deficit forecast for the 1987 fiscal year is US \$14 billion, assuming oil revenue of US \$17.3 billion. As we

mentioned in our article on oil elsewhere in this issue, this projection may be overly optimistic. A renewed swing producer rate for Saudi Arabia may in all probability reduce revenues by an additional US \$3 billion, bringing the overall 1986 budget deficit to at least US \$17 billion. Moreover, non-oil revenues, which include interest on reserves and domestic taxes, may easily fall short of the projected US \$13.8 billion. In all, the 1987 deficit may once again approach and perhaps exceed the US \$20 billion deficit of fiscal 1985-86, threatening to exhaust international reserves by early 1988. While King Fahd still enjoys the option of borrowing funds in international money markets, his persistent refusal to do so up till now is weakening his eventual bargaining power. It is well known that creditors like to lend money only to those who don't need it.

The devaluation story remains as exciting as ever — perhaps even more so. It needs little explaining to prove that a maxi-devaluation will increase Saudi revenues, given that their dollar earnings (oil sales) are still larger than their dollar purchases abroad. Interestingly enough, the recent precipitous fall of the dollar has compounded the Saudi financial crisis, as imports from the non-dollar block have soared in cost. Forward discounts have narrowed after continued denials of an imminent devaluation and a firmer tone in the oil market.

STRATEGY: *The opportunity is ripe for adding to short positions; the cost of a one-year short position is no more than 1.3%, which when measured against a minimum expectation of a 10% devaluation (and as much as 20%) looks extraordinarily inviting.*

Chart 13

YEAR	SAUDI ARABIAN RIYALS PER U.S. DOLLAR (PERIOD AUG.)	U.S.		BASKET	
		1970 = 1.00	1980 = 1.00	1970 = 1.00	1980 = 1.00
1967	4.500	0.9057	1.8261	0.9475	1.5282
1968	4.500	0.9283	1.8716	0.9522	1.5030
1969	4.500	0.9448	1.9049	0.9439	1.5225
1970	4.500	1.0000	2.0162	1.0000	1.6129
1971	4.488	0.9957	2.0075	1.0194	1.6442
1972	4.150	0.9111	1.8369	0.9641	1.5550
1973	3.716	0.7429	1.4978	0.8156	1.3156
1974	3.550	0.6486	1.3077	0.7135	1.1509
1975	3.517	0.5220	1.0525	0.5908	0.9529
1976	3.530	0.4209	0.8486	0.4559	0.7354
1977	3.525	0.4021	0.8107	0.4438	0.7158
1978	3.5399	0.4239	0.8547	0.4904	0.7910
1979	3.360	0.4579	0.9233	0.5520	0.8904
1980	3.326	0.4960	1.0000	0.6200	1.0000
1981	3.382	0.5421	1.0930	0.6289	1.0142
1982	3.428	0.5862	1.1819	0.6444	1.0394
1983	3.454	0.6135	1.2370	0.6438	1.0385
1984	3.523	0.6605	1.3317	0.6606	1.0656
1985	3.622	0.7265	1.4648	0.7209	1.1628
1986(1Q)	3.645	0.7561	1.5245	0.7928	1.2788
1986(2Q)	3.678	0.7686	1.5496	0.8232	1.3278
1986(3Q)	3.745	0.7977	1.6084	0.8562	1.3810

----- BASKET -----
 U.S. 21% U.K. 7%
 Japan 42% Italy 10%
 Germany 8% France 8%
 Singapore 4%

Above 1.00 = undervalued
 Below 1.00 = overvalued

Chart 14

Year	Foreign Assets (Min US\$)	CURRENT ACCOUNT As % of GNP %	CUMULATIVE 12 QTR. Current Account (Min US\$)
1970	957	2.30	-107
1971	1,759	25.30	957
1972	3,154	42.00	3,129
1973	5,081	31.00	5,581
1974	22,236	78.80	27,634
1975	39,198	40.40	39,930
1976	52,254	30.60	51,770
1977	61,400	20.30	40,736
1978	61,668	- 3.38	24,139
1979	64,439	14.64	20,946
1980	93,711	36.42	51,709
1981	139,426	27.15	96,682
1982	153,700	4.93	93,090
1983	141,218	- 13.98	34,268
1984	126,288	- 18.69	-27,538
1985	116,729	- 14.31	-48,078

Chart 15

SPOT	1 - Month	3 - Month	6 - Month	12 - Month
3.7480-	3.7500-	3.7545-	3.7625-	3.7780-
3.7490	3.7520	3.7585	3.7685	3.7890

Chart 16

HARD CURRENCY COVER (In millions of U.S. Dollars)

Reserves * + Previous 12-months current Account *** = -1380
 (Reserves + 12-months C/A)/ M1 ** = Nil
 (Reserves + 12-months C/A)/ Broad Money ** = Nil

*As at December 1986 *** March 1986 *** 1986 (1) - (4)

Figures in millions of U.S. Dollars

	M1 (Converted to U.S. Dollars)	Broad Money (Converted to U.S. Dollars)
1976	6875	8388
1986 (March)	22803	41259
% Increase (decrease)	23%	391%

Corresponding %
 increase in the
 United States 98.2 115.5

(a) 1985 Imports as percentage of GNP = 22.50
 (b) 1976-1985 Imports as percentage of GNP = 24.47
 198 $\frac{1}{2}$ (1976-1985 average) = (a)/(b) = 91.94

Source: FPS

Malaysian ringgit

The Malaysian economy has adjusted remarkably well to the precipitous fall in its terms of trade. While unit value of imports has dropped 23% since 1982, unit value of exports has collapsed 41% for the same period. More recently, the same statistics show a 16.2% and a 34.2% fall respectively since 1985, due largely to the drop in petroleum and tin. Nevertheless, the Malaysian current account deficit steadily has improved: to a US \$700 million dollar deficit in 1985 and a similar figure for 1986 from a US \$3.6 billion deficit in 1982, reducing the current account deficit to 2.5% of GNP.

Prospects for export earnings remain bleak, although Malaysia has been able to increase volumes rather substantially.

A firmer tone also has been noted in rubber and palm oil prices. The nation's financial system has been rocked by the collapse of the country's cooperatives, with deposits of 1.5 billion Malaysian ringgits. As a result, Malaysia's financial system remains rather fragile.

The government will have to continue its austerity drive to live within its means. This means that Malaysia may not be out of the woods for a number of years yet.

STRATEGY: We reaped a handsome profit on short positions that were covered at the end of June 1986 when panic selling of the ringgit pushed one year forward rates to as low as 2.81 ringgit to the dollar. Since then, we have been sidelined.

We remain neutral vis à vis both US\$ and DM.

Chart 17

YEAR	MALAYSIAN RINGGITS PER U.S. DOLLAR (PERIOD AUG.)	BASKET			
		U.S. 1970 =1.00	U.S. 1978 =1.00	U.S. 1970 =1.00	U.S. 1978 =1.00
1967	3.0674	0.8672	1.1004	0.9077	1.0110
1968	3.0649	0.9045	1.1477	0.9346	1.0411
1969	3.0611	0.9560	1.2131	0.9702	1.0807
1970	3.0797	1.0000	1.2689	1.0000	1.1159
1971	3.0202	1.0063	1.2769	1.0081	1.1229
1972	2.8048	0.9558	1.1875	0.9650	1.0727
1973	2.4426	0.7827	0.9932	0.8873	0.9884
1974	2.4071	0.7288	0.9247	0.8592	0.9570
1975	2.3958	0.7578	0.9616	0.8833	0.9839
1976	2.5416	0.8297	1.0529	0.9249	1.0303
1977	2.4613	0.8171	1.0369	0.9089	1.0124
1978	2.3160	0.7881	1.0000	0.8977	1.0000
1979	2.1884	0.8000	1.0152	0.9056	1.0087
1980	2.1769	0.8464	1.0740	0.9429	1.0503
1981	2.3041	0.9016	1.1441	0.9843	1.0964
1982	2.3354	0.9159	1.1622	0.9829	1.0948
1983	2.3213	0.9063	1.1500	0.9677	1.0779
1984	2.3436	0.9185	1.1655	0.9657	1.0757
1985	2.4830	1.0039	1.2739	1.0322	1.1498
1986(1Q)	2.4855	1.0138	1.2864	1.0571	1.1775
1986(2Q)	2.6075	1.0654	1.3519	1.1018	1.2273
1986(3Q)	2.6230	1.0781	1.3680	1.1223	1.2502

U.S. 24% JAPAN 40%
SINGAPORE 30%
Germany 6%

Above 1.00 = undervalued
Below 1.00 = overvalued

Chart 18

Year	Foreign Assets (Min US\$)	CURRENT ACCOUNT		CUMULATIVE 12 QTR.	
		As % of GNP	As % of GNP	Current Account	Current Account
1970	682	+0.02	279		
1971	795	-2.61	139		
1972	979	-5.05	-348		
1973	1255	+1.42	-251		
1974	1496	-5.97	-686		
1975	1446	-5.49	-932		
1976	2257	+5.46	-447		
1977	2659	+3.45	522		
1978	3027	+0.07	1,124		
1979	4163	+4.58	1,473		
1980	4210	-1.20	762		
1981	3434	-10.30	-1,842		
1982	3296	-14.09	-6,372		
1983	3048	-12.48	-9,584		
1984	2262	-5.28	-8,769		
1985	3631	-2.50	-5,891		
1986 (Sept.)	4364	-	-		

Chart 19

SPOT	1 - Month	3 - Month	6 - Month	12 - Month
2.5450-	2.5400-	2.5350-	2.5150-	2.5150-
2.5480	2.5450	2.5430	2.5480	2.5480

Chart 20

HARD CURRENCY COVER (In millions of U.S. Dollars)

Reserves * + Previous 12-months current Account *** = 5826
(Reserves + 12-months C/A)/ M1 ** = 5826/5253 = 111%

(Reserves + 12-months C/A)/ Broad Money ** = 5826/20024 = 29%

*As at October 1986 ** September 1986 *** 1986 Estimated

Figures in millions of U.S. Dollars

	M1 (Converted to U.S. Dollars)	Broad Money (Converted to U.S. Dollars)
1976	2073	5038
1986 (Sept.)	5253	20024

%Increase (decrease) 153% 297%

Corresponding % increase in the United States 117% 127%

(a) 1985 Imports as percentage of GNP 39.98
(b) 1976-1985 Imports as percentage of GNP 42.98
1985/(1976-1985 average) = (a)/(b) = 93.02%

Source: TFS

Friedberg Capital Markets

The case for zero coupon bonds

Currently, investors who are given the choice between a straight New Zealand dollar bond priced to yield 17% and a similar quality and maturity zero coupon New Zealand dollar bond priced to yield nearly 200 basis points less may be led to believe that the straight bond has a lower breakeven for a C\$- or US\$-based investor. This is so because the yield pick-up will better "protect" the C\$- or US\$-based investor should a NZ\$

depreciation impact adversely interest payments and principal repayment at maturity.

But this is not always the case. First, interest rates or yields for a straight bond generally assume that interest payments from the bond can be reinvested at the original rate of interest. Recent history affords a myriad of examples of large downward corrections in nominal interest rates in most developed nations. Therefore, it is unwise to assume a reinvestment of the interest coupon at the original interest rate. The second assumption inherent in straight bond yields is that the whole coupon can be reinvested. In most cases bonds can be

purchased only in multiples of thousands with the odd amount being left idle. Interestingly, yields to maturity are usually based on zero-coupon bond theory, which by definition assumes reinvestment of the entire coupon (zero in this case) at the original rate of interest.

Charts 21, 22 and 23 illustrate how a zero-coupon bond may lower the investor's breakeven point, even though on the surface it appears to have a higher breakeven point than the higher yielding straight bond.

Breakeven point analysis, Chart 21:

Performance of New Zealand dollar straight bond versus New Zealand dollar zero coupon bond, from a C\$-based investor.

$$\frac{(A) - (C)}{(A)} \times 100$$

$$= \frac{211.18 - 151.84}{211.18} \times 100$$

$$= 28.10\%$$

The C\$-based investor can "afford" to see the NZ\$ drop by as much as 28.1% before his total return from the 17% NZ\$ bonds falls to the C\$-based equivalent.

Breakeven point analysis, Chart 22:

Total zero coupon NZ\$ bond versus C\$ straight bond.

Chart 21

100 Straight 17% NZ\$ Bond of X/X/93

Year (t)	Assumed interest rate available in (t)	NZ\$ return of bond after reinvestin coupon at assumed rates in market
1987	17%	100.00
1988	12%	119.04
1989	10%	137.74
1990	8%	156.10
1991	8%	174.46
1992	8%	192.82
1993	8%	211.18 (A)

Chart 22

100 straight Bond 8% coupon in Cdn\$.

Yr (t)	assumed reinvestment rate in (t)	Cdn. Value of bond after reinvesting coupon at assumed rate
1987	8%	100.00
1988	8%	108.64
1989	8%	117.28
1990	8%	125.92
1991	8%	134.56
1992	8%	143.20
1993	8%	151.84 (C)

Chart 23

Tourist Hotel Corp. NZ\$ Zero Coupon bond X/X/93

Year (t)	NZ\$ return
1987	n/a
1988	n/a
1989	n/a
1990	n/a
1991	n/a
1992	n/a
1993	245.4 (B)

* based on 1987 investment of \$40.75 to receive \$100 in 1993
Current annual yield to maturity of 15.33%.

$$\frac{(B) - (C)}{(B)} \times 100$$

$$= \frac{245.4 - 151.84}{245.4} \times 100$$

$$= 38.13\%$$

The C\$-based investor can "afford" to see the NZ\$ drop by as much as 38.13% before his total return from the 15.33% zero coupon bond falls to the C\$ bond equivalent.

Conclusion: The breakeven is considerably lower employing the zero coupon bond in spite of the fact that on the surface, the investor in the straight bond appears better off.

The NZ\$ Tourist Hotel Corp. zero coupon bonds 4/6/93 (Chart 23) is guaranteed by the New Zealand government and is currently being offered by Friedberg Capital Markets to yield to maturity 15.33%.

RRSP reminder

Don't forget that foreign bonds can be eligible self-directed RRSP investments. Call Michael D. Hart at (416) 364-2700 to find out how. But don't delay! The deadline for 1986 RRSP contributions is March 2.

Chart 24

Foreign Currency Bonds

DATE: February 13, 1987

We offer the following Bonds subject to change without prior notice: Minimum amount U.S.\$5,000 (CDN.\$7,000)

ISSUER MTY. DATE/COUPON	BID	OFFER	CURRENT ANNUAL YIELD TO MTY.	CURRENT COUPON PERIOD	
NEW ZEALAND DOLLAR DENOMINATED BONDS					
COCA COLA FIN. Corp.	10 1/4	- 10 1/2	16.58	16/6/86-16/6/87	
16/6/89 18%					
HONDA Int'l	96 3/4	- 97 1/2	17.29	20/6/86-20/9/87	
20/9/89 16 3/8%					
HONDA Int'l	95 1/2	- 96 1/4	17.12	28/11/86-28/5/88	
28/5/90 16%					
TOURIST HOTEL CORP.(N.Z.)	40	- 40 3/4	15.33	matures 4/6/93	
4/6/93 zero coupon					
**** BANK OF NOVA SCOTIA					
15/7/89 18% RRSP eligible	104	- 104 3/4	15.93	15/5/86-15/7/87	
WELLS FARGO (semi-ann.)					
12/5/89 16 1/8%	97 1/2	- 98 1/4	17.78	12/11/86-12/5/87	
KODAK (semi-ann.)					
15/2/89 17%	99 1/2	- 100 1/4	17.55	12/2/86-15/8/87	
DEUTSCHE MARK DENOMINATED BONDS					
REPUBLIC OF PORTUGAL	100 1/2	- 101 1/4	6.39	19/6/86-19/6/87	
19/6/94 6 5/8%					
GOVT. OF BELGIUM	94	- 94 3/4	6.26	29/4/86-29/4/87	
29/4/96 5 1/2%					
**** QUEBEC HYDRO	95	- 95 3/4	6.11	1/5/86-1/5/87	
1/5/96 5 1/2% RRSP eligible					
SWISS FRANC DENOMINATED BONDS					
GOVT. OF AUSTRALIA	103 1/2	- 103	4.65	30/10/86-30/10/87	
30/10/98 5%					
JAPANESE YEN DENOMINATED BONDS					
**** GOVT. OF CANADA	103 7/8	- 104 5/8	4.76	23/7/86-23/7/87	
23/7/93 5 5/8% RRSP eligible					
U.S. DOLLAR DENOMINATED BONDS					
CHRYSLER FIN. CORP.	103	-		1/2/87-1/5/87	
1/8/94 9 3/4%					
(pays quarterly)					
U.S. DOLLAR DENOMINATED FLOATING RATE NOTES					
ISSUER	MTY.	BID	OFFER	CURRENT COUPON	NEXT COUPON DATE
SANTA BARBARA SAVINGS & LOAN	18/12/95	pays 1/8% over 3 months LIBOR (quarterly)	99.69-99.99	6 1/2%	18/3/87
(fully collateralized)					
LINFIN SAVINGS & LOAN	14/11/95	pays 1/8% over 3 months LIBOR (quarterly)	99.69-99.99	6 1/2%	17/2/87
(fully collateralized)					
WELLS FARGO	3/4/2000	pays 1/8% over 1 month LIBOR (monthly)	99.24-99.54	6 3/8%	20/2/87

For further information current prices please call: FRIEDBERG CAPITAL MARKETS (416) 364-2700

Forex Rates & Update

<i>Currency</i>	<i>Spot</i>	<i>3-Month</i>	<i>12-Month</i>	<i>Comments vis à vis US\$</i>	<i>Comments vis à vis DM (Spot DM: 182.00)</i>
Australian dollar	.6645-.6650	.6484-.6493	.6065-.6080	Neutral	Neutral
*Belgian franc	37.90-37.97	38.02-38.13	38.32-38.48	Liquidate	Remain long
Danish krone	6.8975-6.9630	6.9630-6.9770	7.1425-7.1675	Neutral	Neutral
*Dutch guilder	2.0670-2.0685	2.0613-2.0633	2.0420-2.0450	Liquidate	Remain long
Greek drachma	134.50-135.00	138.50-141.75	144.50-164.00	Neutral	Remain short
*Italian lira	1302-1304	1303-1305	1307-1309	Liquidate	Neutral
Kuwaiti dinar	.27760-.27770	.27750-.27795	.27700-.27845	Neutral	Remain short
New Zealand dollar	.5440-.5450	.5212-.5232	.4740-.4790	Remain long	Remain long
*Norwegian krone	7.01-7.02	7.16-7.18	7.59-7.62	Liquidate	Neutral
Portugese escudo	142.00-142.50	145.00-147.00	150.00-160.50	Neutral	Neutral
Singapore dollar	2.1400-2.1420	2.1265-2.1295	2.0970-2.1020	Neutral	Neutral
Spanish peseta	129.45-129.50	131.25-131.50	135.95-136.65	Neutral	Neutral
*Swedish krona	6.52-6.53	6.59-6.61	6.77-6.79	Liquidate	Neutral
Venezuelan bolivar	22.40-22.70	22.60-23.55	23.40-24.90	Neutral	Neutral

Explanatory Notes

*Indicates change in recommendation from last issue

Currency expected to firm against both currencies.

Currency expected to strengthen against US \$ and weaken against DM.

Currency expected to weaken against both major currencies.

Currency expected to weaken against US \$, but strengthen against DM.

Term used to liquidate short position but does not imply a new buy recommendation

Term used to indicate sale advice of previous long position, but does not imply a new short sale recommendation.

Buy	Buy
Buy	Sell
Sell	Sell
Sell	Buy

Cover

Liquidate

Hotline Update

Tuesday, Jan. 27: No changes or new recommendations. Next regular update: Friday, Jan. 30.

Flash update, Thursday, Jan. 29, 8:30 a.m.: We advise liquidating one half of long DM and SF positions, realizing very substantial profits. Raise stops on the balance of long DM and SF positions to 5540 and 6575, respectively, basis March, good anytime. These stops are above the levels mentioned in our latest market letter, mailed yesterday.

Friday, Jan. 30: A repeat of the week's recommendation. As per our flash update of yesterday, Thursday, Jan. 29, at 8:30 a.m., you sold one half your long March SF and DM currency positions, realizing substantial profit at approx. 6700 and 5622, respectively. As per the second part of yesterday's recommendation, where we revised upward the stops on the balance of our currency position, we were stopped out of March DM at this morning's opening of 5537 and shortly thereafter at somewhere between 6560 and 6520 on the March SF. We are now flat these currencies. Remain sidelined. Next update Tuesday, Feb. 3.

Flash update, Monday, Feb. 2, 12:20 p.m.: We are recommending the purchase of March Standard & Poors at the market to take advantage

of the ongoing blow off. Place stops at 271.00, close only.

Tuesday, Feb. 3: As per our flash update of yesterday at 12:20 p.m., you are now long the March S&P at approximately 276.40 to take advantage of the ongoing blow off. Stops are 271.00, basis March, close only. Also to reiterate Friday's message, we are now flat the DM and SF, having accepted sizable profits.

Friday, Feb. 6: As per our flash of Monday and as reiterated on Tuesday's regular update, you are now long the March S&P at approx. 276.40. Raise stops 274.00, basis March, close only. In the currency area, we remind you that we are sidelined, having liquidated the DM and SF long positions on Thursday, Jan. 29, and Friday, Jan. 30.

Tuesday, Feb. 10: No new changes or recommendations. We have raised stops on long S&P contracts to 274.00 basis March, close only.

Friday, Feb. 13: No new recommendations. May we remind you that your stop on long March S&P contracts is 274.00, close only, as suggested last Friday, Feb. 6. Next update Tuesday, Feb. 17.

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