

The Challenge of Analyzing the Euro

Forecasting the Longer-Term Cycles

by Walter Bressert and Doug Schaff

How do you analyze the Euro? It was born a full-fledged currency with no price history. Yet it had to be researched. Literally millions of importers, exporters, investors, risk managers and others were instantly exposed long or short the moment the Euro took its first breath. We were too. We'd been asked to make a longer-term forecast for the Euro. But what would we do for data? If we could determine the Euro's long-term cycles and the position of the Euro within the current cycle, we knew we could forecast price direction for the coming months and years, and even anticipate the next trend reversal. But this wasn't simply a case of analyzing cycles. Our work relies upon good data. No matter how statistically impressive the data used to estimate the Euro's cycles, we could not forget that the Euro had only traded since the start of 1999. We quickly came to the conclusion that we had to test the synthetic Euro to find out if we could use it with confidence.

Over time the Euro will perform according to the economic results of the group of countries that have adopted it relative to the group's trading partners. It would be reasonable to figure that, even though the Euro is not a basket currency, it would have traded like a basket of the 11 currencies weighted by their respective portion of the combined GDP. Bridge EuroChannel allows for different methods to calculate Euro histories. We used several but chose the GDP-weighting method for the price history on our charts. The results of these synthetic price histories are useful, but should be considered in the context of other currencies, such as the ECU and Dollar-mark, that can to some extent act as Euro substitutes. There is, of course, extensive data on the ECU and Dollar-mark. We first checked for anomalies between that data and the synthetic Euro which might actually *disqualify* the synthetic Euro from use.

The ECU as a Substitute for the Euro

The Euro's birth was simultaneous with the ECU's death. Each ECU converted 1:1 into a Euro at that time. Despite this, the ECU's price history is not "parent" to the Euro. The Euro is a separate currency, not a basket of currencies as was the ECU. The ECU did, however, contain 9 of the 11 "Euro currencies" as listed below.

Countries in the Euro

Austria¹
Belgium

Finland¹
France
Germany

Ireland
Italy
Luxembourg
Netherlands
Portugal
Spain
1Not in the ECU

Countries in the ECU

Belgium
Denmark²

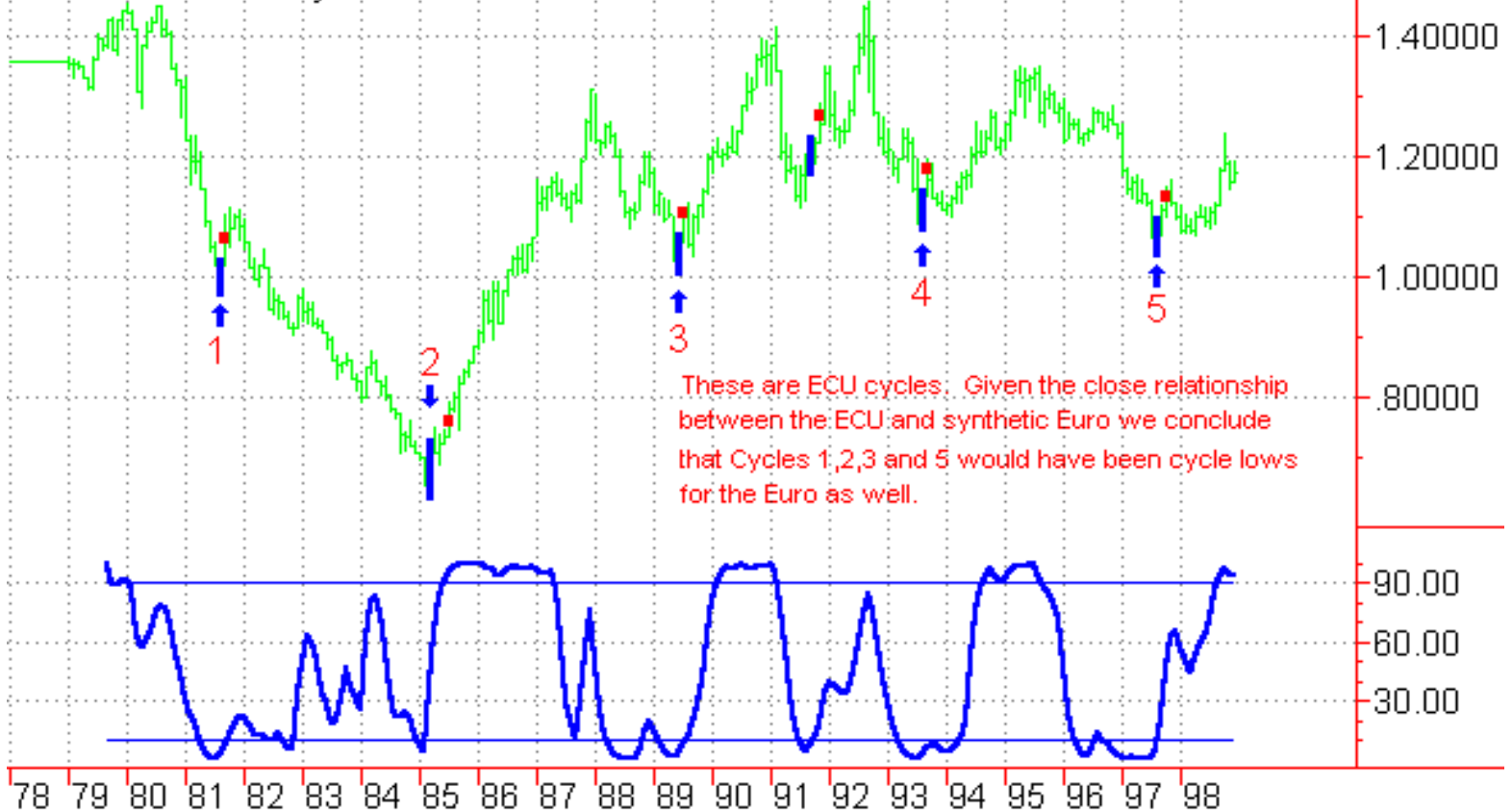
France
Germany
Greece²
Ireland
Italy
Luxembourg
Netherlands
Portugal
Spain
UK²
2Not in the Euro

The ECU did not contain the Austrian Shilling or Finnish Mark, both of which traded closely with the Deutschemark. Of the ECU countries not in the Euro, the UK (which near the end made up 12 ½ % of the ECU) is noteworthy. The British Pound's absence probably accounts for most of the difference between the synthetic Euro prices and 24-hour interbank ECU prices used here. The Greek Drachma represented a small fraction of the ECU, as did the Danish Kroner which typically followed the D-Mark closely.

The ECU's Longer-Term Cycles

Below is a monthly chart of the ECU going back 20 years. ECU 4-year cycle bottoms are shown in 1981, 1985, 1989, August 1993 and August 1997 (marked 1 thru 5).

XEUUSD\$Y-Monthly 12/31/98

**Chart 1**

The blue indicator drawn under the price bars is the Bressert Double Stochastic available through www.fxtiming.com, which does a good job of finding the 4-year cycle bottoms. To target the 4-year ECU cycles use a cycle length, 20, as the input for the stochastic. You can see that it hits bottom at all the 4-year lows.

In Chart 1 a buy signal confirming each 4-year low is constructed using the Bressert Double Stoch Buy signal (also available through the website). When the oscillator turns up from below a buy line of 10, the price bar above it is painted blue.

A move of 400 points above the setup bar is used to "trigger" the signal, marked by a small red square. Only six such signals have occurred since 1981, five at 4-year lows for the ECU, and one in 1991 that marked a highly profitable trade in the 2-year cycle. This signal identified the low bar of each 4-year cycle. Once that cycle low has been confirmed you know the direction of the long-term trend.

The Deutschmark as Proxy for the Euro

Official pre-Euro publications took a conservative stance in stressing the impossibility of creating a valid historic database for the Euro. The Euro *is* a brand new currency. It is not an index or basket composed of 11 currencies. Each Euro currency has a distinct history. But on the whole they have trended quite similarly. On a day-to-day basis, interbank traders used to price the Guilder, Lire and others off of a spread to the D-Mark that usually stayed within narrow limits.

Some Euro currencies have stayed within a very narrow range against the D-Mark. From 1994 through 1999, for example, the Austrian Schilling had a 3 percent trading range versus the D-Mark. So using the D-Mark as a proxy for the Euro is not a bad place to start.

Longer-term Cycles in the Dollar-mark

The Dollar-mark cycles were calculated similarly to those of the ECU and show 4-year cycle tops in 1981, 1985, 1989, February 1994 and August 1997. Cycles 1, 2, 3 & 5 match those of the ECU. Cycle high 4 occurred six months after the cycle low for the ECU. In effect, the Dollar-mark cycle high occurred at the second high of a double top while the cycle low in the ECU occurred at the first low of a double bottom.



Chart 2

Synthetic Price Histories for the Euro

Prior to the Euro's inception, mathematicians worked overtime to create price histories to mirror how the Euro might have traded in the past. Though the 11 Euro currencies have well-documented price histories, some, such as the Irish Punt and Portuguese Escudo, are thinly traded outside European hours. Therefore the trading day for the synthetic Euro should be considered 0700-2045 GMT (2 a.m. to 3:45 p.m. New York time). The approach to creating a synthetic price history for the Euro is to take the 11 actual price histories, decide how to combine each together, and then let the computer do its work to calculate the resulting price history as far back as possible.

There are many ways to calculate a synthetic Euro. One way combines the 11 currencies according to the relative size of their 1999 GDP's. Another way is to use the same percentage weighting for currencies in the Euro that were in the ECU, and evenly distribute the weights of the Pound, Danish Kroner and Greek Drachma to the Austrian Shilling and Fin-mark. Mathematicians being an independent lot have created several other ways to do this, each incorporating an element of judgement.

Divining longer-term cycles for the Euro

Chart 3 uses Intutechnic's Euro data going back to 1985. 4-year cycle lows are shown in 1981, 1985, 1989, 1994 and 1997. 4-year Dollar-mark and ECU cycles ended in August 1981. Due to the relationship of the three discussed below, we have imputed a cycle low for the Euro in August 1981, and begin our count there. Cycle tops are indicated by the red down arrows.

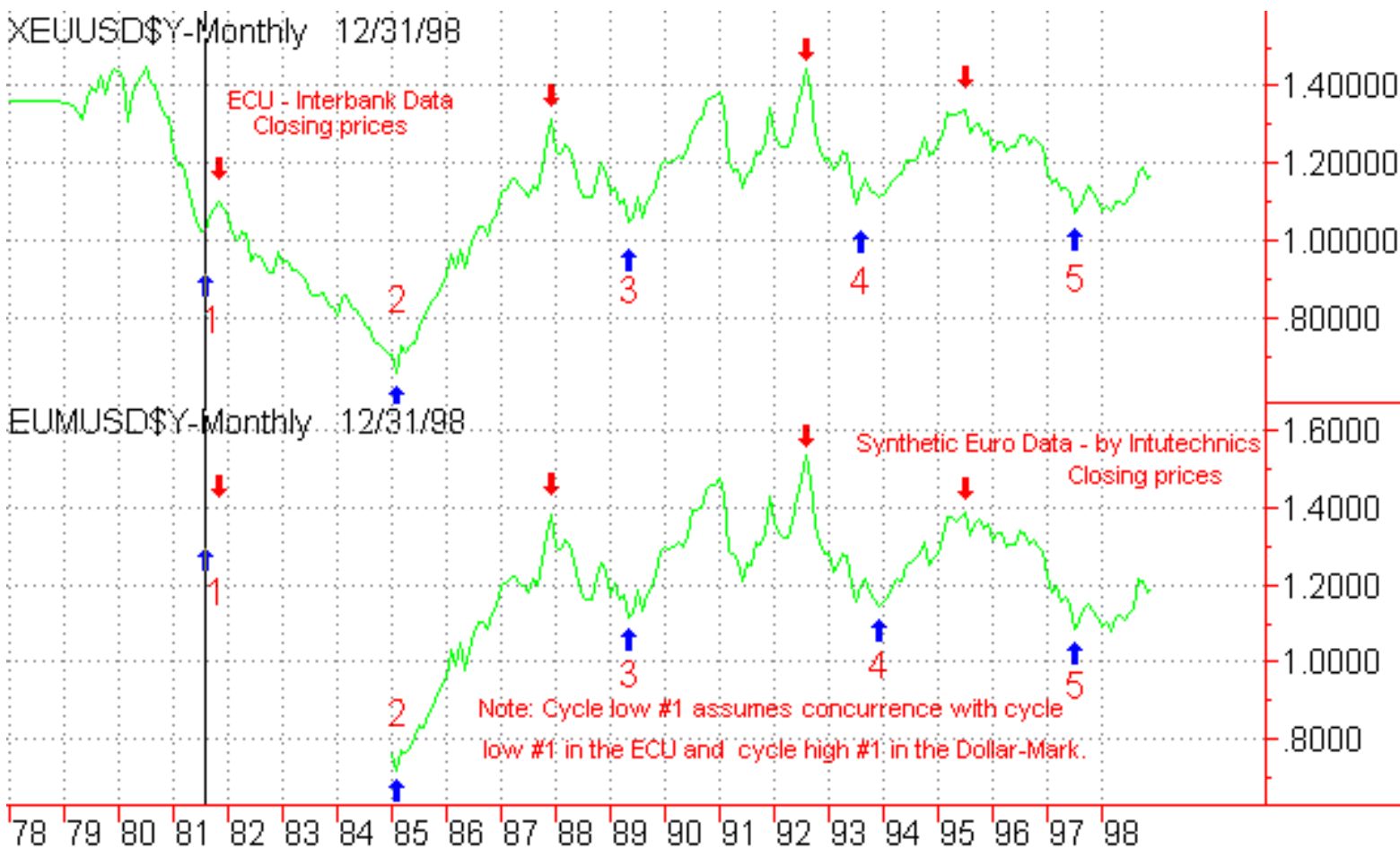


Chart 3

How the ECU & Dollar-mark match the Synthetic Euro

Generally the ECU and Euro look like mirror images of each other. In Chart 3 the major cycle tops and bottoms for the ECU and Euro all appear to line up except for Cycle low 4 in late 1993/early 1994. The Dollar-mark cycle highs occurred the same time as the Euro cycle lows.

Chart 3 uses close-only prices for the ECU to match how that Euro price history was created. Let's double check the cycle timing difference with the Bridge data which can generate monthly Euro high, low and close instead of close-only prices.

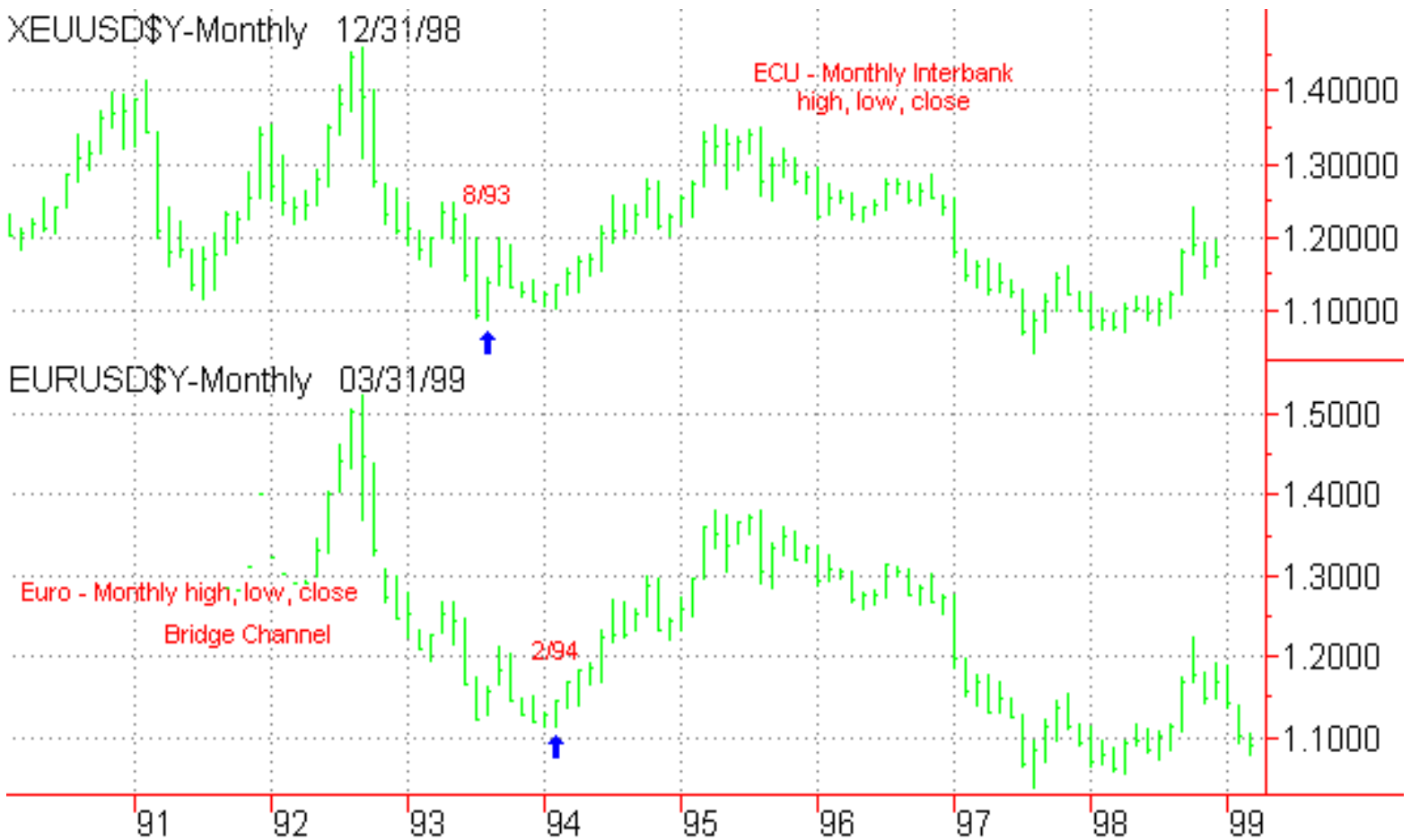


Chart 4

Chart 4 confirms that the ECU made an important low in August 1993 whereas the Euro didn't make it's low until the following February, six months later. That is interesting because it is unexpected. Why would the ECU make a 4-year low six months before the Euro? We wanted to check that out. At the outset of this major currency we figure it's better to be a bit cautious. In so doing we'll be checking the Euro data, model assumptions and the component currencies.

Why the Difference in the 8/93 and 2/94 Cycle Lows?

If the price difference between the Euro and ECU at the cycle lows in question were a ¼ or ½ percent, we could possibly explain it as due to the synthetic Euro being priced during European trading hours only. But the price difference ECU to Euro on the 8/93 and 2/94 price bars was over 2%. And furthermore the 24-hour Dollar-mark cycle coincided with the synthetic Euro cycle so we need to find out why the difference with the ECU occurred. The answer could point toward whether the Euro more closely matches the \$-DM cycles or ECU cycles.

Was the Pound Responsible?

Here's the numbers on the different \$-DM and ECU 4-year cycles:

ECU 4-year cycle low	Dollar-mark 4-year cycle high
<u>Week of 8/6/93</u>	<u>Week of 2/11/94</u>
ECU low was 1.0862	ECU was 1.1019 (\$ was 1.5% lower)
With Dollar-mark at 1.7480	Dollar-mark high of 1.7673 (\$ 1.1% higher)

What could account for this difference? The natural hypothesis was to check out the GBP/DEM crossrate to see whether a large "George-Soros-type" downdraft in the pound was responsible for an "early" low in the ECU.

Here's the GBP/DEM Chart:



Chart 5

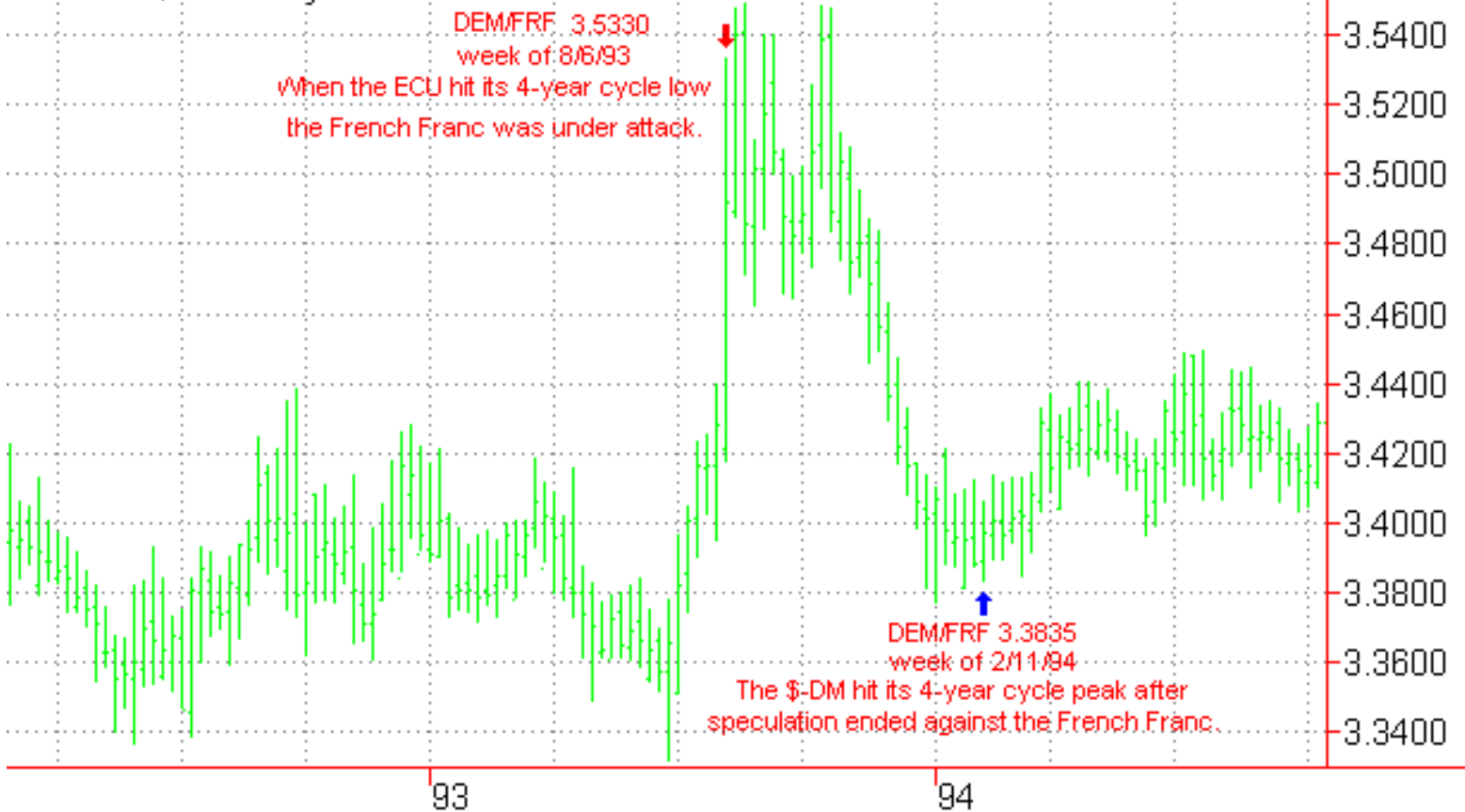
Interestingly enough, the pound was firm against the DM both at the ECU low in 8/93 and at the DM low (dollar high) in 2/94. Pound/Mark traded in nearly the same range both the week of 8/6/93 and 2/11/94, although it made a 1% higher high at the Dollar-mark's 2/94 peak than at the ECU's low. At the time sterling made up about 10% of the ECU. Therefore Sterling alone does not explain the six-month difference between the ECU and Euro cycle lows.

Were the ECU Currencies Unusually Weak?

So we wondered, "Was the DM strong against the other components of the ECU when the ECU bottomed?" That would not be completely unusual and could explain it. In other words, could the DM have been as much as 2.5% stronger against the currencies other than the pound that made up the ECU when the ECU bottomed in 8/93?

Frankly, the Bridge EuroChannel product made this relatively simple for us to research because the product allows easy access to their extensive Forex database. We began by looking at the DEM/FRF (the D-mark quoted in terms of French Francs).

DEMFRF\$Y-Weekly 03/12/99

**Chart 6**

It turns out that when the ECU hit its long-term cycle low the French Franc was under speculative attack. The chart shows the D-Mark quoted in French Francs. A weak franc therefore appears as a higher DM price (It took more francs then to buy a D-Mark.). The French Franc fell nearly 5% in the month before the ECU hit bottom in 8/93. It stayed weak for 2-1/2 months then recovered all the ground it had lost by the time the Dollar-mark hit its high in 2/94. That movement actually supports both the earlier cycle low of the ECU and the later cycle high of the Dollar-mark.

What about the other components of the ECU? They performed similarly. Into the 8/93 ECU low, the Dutch Guilder and Belgian Franc declined 1 percent, but the others fell between 3 and 10 percent. No wonder the ECU cycle low was earlier than the Dollar-mark's high. (By the way, all the currencies made up most of their losses into the 2/94 Dollar-mark cycle high (DM low)).

That discrepancy brings up a key question. Why didn't the synthetic Euro prices reflect this difference between the Euro currencies and the Deutschemark? It seems that any method of calculating the Euro should hit a long-term cycle low in 8/93 the same as the ECU did. After all, synthetic Euro prices are constructed from essentially the same currencies that made up the ECU.

Take the Danish Kroner, Greek Drachma and British Pound out of the ECU and insert the Schilling and Fin-mark. What happens? We tried various synthetic Euro calculations using Bridge EuroChannel's EuroCalc. Each showed a cycle low in 2/94. Why? The actual difference between the ECU's low prices at 8/93 and 2/94 was 1.0862 versus 1.1019 or about 1.5%. Let's look at the difference in prices of the above currencies during those two times. The Schilling hardly changed in its crossrate against the DM at either time. From 8/93 to 2/94 the Fin-mark strengthened over 10% to the DEM (3.4522 versus 3.1511). The net effect of the currencies we "took out" of the ECU was about zero (net difference of Pound = 0, GRD -4%

and DKK +7%) whereas those currencies "added" to get the Euro were on balance stronger against the DEM. But by how much? Not a whole lot. Bridge's EuroCalc shows that substituting the Schilling and Fin-mark for the Pound, Kroner and Drachma results in a 3/10th of 1 percent gain for the Euro versus the ECU from 8/93 to 2/94.

Checking the Data

If the Euro, which gained 0.3% against the ECU from 8/93 to 2/94, hit bottom in 2/94, it would seem that the ECU, which lost ground, would also hit its low at the later date.

"@#!**!" We prayed these results were not due to bad data. No data is perfect but after all this, the prospect of bad data at the potential cycle low was excruciating. At times like these one is tempted to make the data fit the story! Anyway, we'd gotten the original ECU data from Bridge. What would checking it with Bridge accomplish? Not exactly arm's length. What's worse, maybe because the ECU no longer exists, it wouldn't come up at first on the Bridge EuroChannel product. In frustration, we typed in "ECU" under symbol search. *Low and behold a dozen interbank sources appeared.* There were separate ECU price histories from Chase London, Morgan New York, NatWest London and others. We checked them all.

They all confirmed a late July, early August 1993 low for the ECU (either 7/30, 8/1 or 8/2 depending on the data source). Cash prices from separate sources will vary. We've got no problem with that. In fact banks in different time zones can give different closing rates depending on when their trading days end. Even checking the London banks' closing prices (to match the Euro closing prices calculated at the end of Europe's trading day) didn't change the fact that the ECU had bottomed six months before the Euro.

So fine. The data were good but we still had no explanation for the mathematical problem we faced.

Adding in the Real World provides the Solution

Nothing made sense until we realized how the foreign exchange dealing room works. The time is late July 1993. During the past few months the dollar's been getting stronger and you've watched all the European currencies sink against the D-mark. You're in the dealing room; it's coming out your pores. And it's getting worse. The French Franc's down 5 percent, everything else about three percent against the Mark. But the Kroner keeps going – It's down 7 percent now. And look out for the little guys -- the Escudo is down 10 percent against the Mark. Looks like a Mark revaluation is about to happen, or a devaluation for the others.

What goes on in a dealing room during a devaluation scare? First off, the Chief Trader sets an ironclad policy for any positions in the weak currencies. If you're the spot trader in the French Franc, Italian Lire, et al, suddenly it's not your book anymore; it's the Chief Trader's. Why? The risk is too big, and if you don't have the experience, you can get hammered several different ways before noon. Disagree with the Chief Trader at the wrong moment and you're off the currency. Show him a position he told you not to have and you're fired and out the door.

Our conclusion is that in the July/August 1993 FX market, where all hell was breaking loose, the ECU came unglued. There was obviously a disconnect between the prices of the "arbitrage" components of the ECU and the basket itself. The reason the word arbitrage is in quotes is because, while the components of the ECU were all tradeable, they were not deliverable against the basket. The illiquidity of the smaller currencies, like the Escudo, Punt and Drachma also worked against putting on and taking off a true arbitrage.

In late July/early August 1993, how would you have arbitrated the ECU against its components anyway? Anyone who's worked in a dealing room during a devaluation scare knows that it becomes near impossible to short a weak currency if you haven't, in advance, generated bank balances in that currency. If you bought ECU's and shorted the French Franc and other currencies against it, how were you going to finance the short positions? Where would you borrow the francs? More importantly at what price? To dampen speculation central banks can dramatically raise interest rates. They do this precisely to make shorting their currency an expensive proposition.

This unusual scenario is the most likely explanation for the "early" 4-year cycle low in the ECU. What in normal times would have been a good correlation between the ECU and its component currencies, completely broke down in late July, early August 1993. (Remember Long Term Credit's bond "arbitrage" that broke down in the summer of 1998?) The result was a disconnect between the ECU and its component currencies, and the ECU got sold below its fair value. Who wanted to own ECU's then? It contained all the dogs, all the ones your Chief Trader on up to bank management was telling everyone not to own. What do you do when someone throws a hot potato at you? Catch it briefly and throw it to the next guy. When a weak currency gets sold there is a multiplier effect as it changes hands at ever lower prices.

Cycle Low Confirmed for the ECU

This disconnect between the ECU and its currencies may have signaled to the European central banks that they had to do something. That may have even been the fundamental event that triggered the ECU's recovery.⁴ Technical cycle information can help you remove yourself from the hothouse emotions of trading environments at those times. Despite the difficult and very bearish market in August 1993, that is when cycle low 4 for the ECU occurred (4 years and 2 months after the previous cycle low in 6/89). Further research showed that on 7/31/93 Europe's ERM (Exchange Rate Mechanism) expanded the central parities around which the so-called "snake" currencies could fluctuate, from 2-1/4% to 7-1/2%. Two days prior the Bundesbank had lowered its discount rate by 1/2% but this was insufficient to defuse speculative pressures. Intervention and expanded parities did.

Cycle High Confirmed for the Dollar-mark

By the way the central banks won. Over the next six months all those currencies that had been devaluation candidates against the D-mark gained most or all of their losses. The dollar was still strong but there was no problem with the ECU. The DM was now relatively weak; actually considering it less strong than in 8/93 would be more accurate. So the Dollar-mark cycle high in 2/94 makes perfect sense occurring without a new low in the ECU. Cycle timing confirmed along with an invaluable lesson on currency pricing in the real world.

Conclusion for the Cycle Low in the Euro

The question with regards to deciding the cycle low for the Euro is: Will the Euro trade more like the ECU or will it trade more as a separate currency, like the D-Mark?

The Euro is a separate currency, not a basket of currencies like the ECU was. It will be less prone to the kind of devaluations and dislocations that occurred within the EMS. That's one of the major benefits of the Euro over the prior system. In this case, the 2/94 cycle low for the synthetic Euro is preferred.

However, until 2002, while the national currencies still exist, there could be a major distortion within the EMU. As unlikely as it seems, some country could conceivably get kicked out if, for example, it completely abandoned the group's fiscal policy objectives. Another country might want out. These

countries are not automatically forever stuck together with super glue. Raise your hand if you don't think French farmers will drive their tractors en masse into Paris to protest some aspect of closer European economic cooperation.

The separate "component" currencies of the Euro exist until 2002. While the semi-regular devaluation scares of the past are gone, they have been replaced by a small probability of a big one during the next few years. For that reason, the timing of the 8/93 ECU cycle low is kept as a second choice for the Euro's Cycle 4 low. This timing is closer to halfway between the 4-year cycle lows in 1989 and 1997. But there is a better rationale for it.

How would the new Euro have traded in the summer of 1993? Probably the matter would not have gotten out of hand. But if it had, the Euro would certainly not have maintained its fixed parities with the Euro currencies without a fight. In this regard, the sooner Europe gets to 2002 the better. If an old-fashioned devaluation/revaluation-type scare happens before then, the fixing rates of the Euro against the D-Mark, French Franc, etc. will be tested. Unlikely, yes. Impossible, no.

The Euro: Forecasting the Current 4-Year Cycle

Long-term cycles provide an overview of expected price movement and trend. Each market has an individual cycle profile. Having identified 4-year cycle tops and bottoms for the Euro, how can they be used to identify tops and bottoms of upcoming price movements? What expectations can be drawn about the prospects for the current cycle, begun 8/97? Are we going to exceed the last 4-year top? When will the next cycle high occur?

Based on the research done above, we developed confidence in the synthetic Euro price data and therefore believe the cycle analysis, presented below, gives important guidelines as to its future performance.

How it Topped in Past Cycles

In forecasting the next cycle high for the Euro, the first thing we look for is how it topped within previous cycles. This gives a range of time it took the Euro to go from cycle trough to crest, but it also gives us important information on trend. The key to successful trading is to trade with the trend; buying the dips in uptrends and selling the rallies in downtrends. Trend is defined as the direction of the next longer cycle than the one you are trading or, in this case, analyzing. For the daily chart, the direction of the weekly cycle is used. For the weekly chart, the direction of the monthly cycle is used.

Cycle	Start	High	End	Cycle Length	Months To Top	Right/Left Translation
1	8/81	10/81	2/85	42 mos	2	Extreme left, Bearish
2	2/85	12/87	6/89	52	34	Right, Bullish
3	6/89	9/92	2/94 (8/93)*	56 (50)	39 (33)	Right, Bullish
4	2/94 (8/93)	8/95	8/97	42 (48)	18 (24)	Left, Bearish
5	8/97					

* This alternate bottom for Euro Cycle 3 corresponds to the low date of the ECU's Cycle 3 in Chart 1. Subsequent information in parentheses is based on that.

Stalking the Larger Cycle

You can get European currency prices going back to the 1800's but they are not helpful in describing longer cycles because they show that currency prices were controlled for long stretches at a time. Because currencies were controlled we cannot be certain of the length of the next longer dominant cycle after the 4-year cycle. However, by observing the position of cycle tops within the Euro's 4-year cycles, we can develop an understanding of the direction of the next longer cycle.

When the larger cycle is moving up, the tops of smaller cycles tend to occur later in the cycle. As the market rises to the top of the larger cycle, a chart of the cycle shows the tops of the smaller cycles shifting to the right within the larger cycle. This cyclical characteristic is called *Right Translation*. Cycle 2, which began in 1985, lasted 52 months and showed strong right translation, which is bullish. It was followed by a cycle of 56 months, begun in 1989, with neutral to right translation. Also, the bottoms of the smaller cycles were above the previous bottoms, and the cycle highs were above the previous cycle highs. This is bullish and indicates the longer cycle was moving higher.

When the longer cycle is moving down, the crests of the smaller cycles shift to the left exhibiting *Left Translation*. Also, each cycle low is usually below the previous low, and each high is often below the previous high. Cycle 1 began in 1981, lasted 42 months and showed extreme left translation by topping in the second month. Strongly downtrending markets exhibit this tendency. At the time the Euro was on its way to a major low in 1985. Cycle 4 began in 2/94, was 42 months long and showed left translation. Cycle 4 did not take out the previous cycle high. The low of Cycle 4 was lower than the low of Cycle 3. Lower highs and lower lows are characteristic of downtrending markets. The fact that the last synthetic Euro cycle took out the 1994 cycle low and showed left translation indicates a major top was made in 1992. This supports the possibility that the next longer cycle is now trending lower for the Euro.

Up or Down for the Euro

While we don't know the length of the next dominant cycle beyond the 4-year cycle, we can say what has to happen for it to show its true colors, bullish or bearish. Both scenarios are laid out below as of mid-April 1999.

The Bullish Scenario for the Euro – 1.25 to 1.30 by Election 2000.

The Euro makes a monthly close above the downtrend line drawn in Chart 7 across the tops of Cycles 3 and 4. Then the bottom of the next longer dominant cycle is in place and we'll see a 60 to 70% retracement towards the 8/95 cycle high by August/December 2000.

EURUSD\$Y-Monthly 04/30/99



Chart 7

A basic tenet of cycle analysis is that when a downtrend line drawn across the tops of two cycles of the same length is penetrated significantly, the bottom of the next longer dominant cycle is in place. Such a downtrend line is drawn in Chart 7 from Cycle high 3 through Cycle high 4. A significant penetration would mean a monthly close above the downtrend line. As of April 1999 the downtrend line comes in at 1.2050 and declines to 1.18/1.19 by September/October. A monthly close above the trendline would imply that the bottom of the next longer dominant cycle is in place and indicate higher prices for the Euro are expected.

Should the Euro exceed that trendline, the first resistance would be the 1.2200 to 1.2250 area around the old 10/98 high. But the Euro would likely exceed that and trade up to the 62% retracement price of 1.2450 or a bit higher. One of the most consistent tools for determining price objectives are the 38-62% cycle retracements (derived from the Fibonacci .382-.618 relationships). Most cycles will retrace at least 38% and possibly 50 to 62%. In Chart 7, the upmove from Cycle 5 low to the Cycle 5 high in 10/98 bounced off the downtrend line, making a 53% retracement of the drop from Cycle high 4 to Cycle low 5.

If the Euro breaks the Cycle 3 high/Cycle 4 high downtrend line is it going to exceed the 1995 high? The Cycle 4 high could be exceeded but will probably not be as *this* cycle tops. The last cycle bottom dropped below the previous 4-year cycle low. The tendency following a downside penetration of a previous 4-year cycle bottom is for the next 4-year cycle top (in this case, the current one) to remain below the previous 4-year cycle top.

If the Euro moves up to its 62% retracement level of 1.2450, there is good resistance between 1.2700 and

1.3000. This is the upper price range where we think the Euro would top out in this 4-year cycle. If the Euro gets to these levels, a mechanical Bressert Double Stochastic Sell signal will let us know the cycle top is in place. Here's how it would be constructed:

1. The Euro's 20-month double stochastic oscillator rises above a sell-line of 90.
2. It turns down. The monthly price bar that turned the oscillator down is colored red and called a *setup bar*.
3. A mechanical sell signal is *triggered* when price falls below the low of the setup bar.

In bullish cycles, with right translation, the Euro's cycles have risen 34 to 39 months to their tops. We could expect the same thing if the Euro's next longer cycle is moving up. This means we'd see a cycle top about 3 years from the low in August 1997. The historical 4-year cycle tops have occurred since 1981 in the August – December period. In this scenario look for a top in the Euro around election time 2000.

The Euro's Bearish Scenario – Prices drop below 95 cents by Summer/Fall, 2000

The Euro stays below the Cycle 3 high/Cycle 4 high downtrend line and develops left translation (a cycle high before 8/99). Prices test \$1.00, and make a cycle low in the 92 to 95 cent range by Fall, 2000.

For a bear market to be in place the Euro would stay below the Cycle 3 high/Cycle 4 high downtrend line in Charts 7 & 8, and develop left translation in this cycle. The current 4-year cycle will be 24 months old and most likely half-complete by August 1999. That means the Euro needs a new high above 1.2230 before then or the larger cycle is bearish and the Euro is headed lower.

If the top is in place, how low is the Euro going to go?

- \$1.04 – The old Cycle 5 low at 1.0390 will provide support.
- \$1.00 – Chart 3 shows several months of congestion in early 1986 around the one dollar level. In Chart 8, the **dark blue** "wedge" line through Cycle lows 4 & 5 comes in there, too. That's a likely level the Euro would reach in a bear market.
- 92 to 95 cents - A parallel channel line to the Cycle 3 high/Cycle 4 high line, drawn off the Cycle 5 low provides support in this area.

EURUSD\$Y-Monthly 04/30/99

**Chart 8**

A dark blue line drawn through Cycle lows 4 & 5 comes in around the \$1.00. It is dropping slowly and would provide support a bit lower than that through August 2000, the expected time for the cycle low in this scenario. This line forms a "wedge" as, when extended, it eventually meets the higher downtrend line, forming a triangular wedge of prices.

Channel lines drawn through tops or bottoms of the same length cycles can point out powerful areas of support or resistance. In Chart 8 a parallel to the downtrend line is drawn off the Cycle 5 low. The slope of that line is dropping at about 5 cents per year and currently comes in at 97 cents. Thus a 92 to 95 cent objective is called for by Fall 2000, following a break of \$1.00.

As outlandish as a 92-cent Euro may sound as of mid-April 1999, given today's picture, the current cycle could take out the Cycle 5 low just as the low at 5 took out the low at 4. Fundamentals look their worst at cycle bottoms. Think back to the currency markets in 1995. Who would have thought the fundamental picture would change enough to drop the synthetic Euro from 1.38 down to 1.04 in just two years? Take a look at Chart 3. The Euro actually has a base near its Cycle 5 low. If we take out that base there is almost a free-fall for the Euro. That, however, is highly unlikely. Given the massive size of the EU's reserves, it can stop the currency where it wants. So in a bear market, while a test of 95 cents to \$1.00 is likely, a prolonged break below it is not.

The authors, Walter Bressert and Doug Schaff, collaborate to publish [FX Timing.com](http://www.fx-timing.com). Utilizing Walter's cycle and technical analysis combined with Doug's currency expertise and fundamental knowledge, these services combine long,

intermediate and shorter-term cycle analysis for the major currencies, Euro crosses and other currency pairs.

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