Forecasting the economy, the cycle, inflation and policy

Level III Asset Allocation

1 Three forecasters, one economy

- Weather model, sky signs, experienced checklist
- Dana advises Brightwater Pension Fund
- Question: a one-year tilt based on Karvia's economy
- Three method families, each with a weakness

IN THE LESSON

- Imagine three people asked whether it will rain tomorrow.
- One feeds pressure, wind and temperature into a weather model.
- One watches the sky for signs, like low flying swallows.
- One runs down a checklist, glancing at everything and trusting experience.
- Economic forecasters work the same way.
- Meet Dana Whitcombe, a strategist at the made up Brightwater Pension Fund.
- The trustees want a one year view of the economy of Karvia, so they can decide on a small tilt in the portfolio.
- Dana has three families of method to choose from: econometric models, leading indicators and the checklist approach.
- A good strategist does not pick a favourite.
- She asks what each method does well, and what it gets wrong.

2 Method one: econometric models

- Estimated equations linking variables
- Strength: rigorous, quantitative, re-run scenarios
- Weakness: complex, needs stable links
- Tends to miss turning points
- Karvia model forecast: growth of 2.4%

IN THE LESSON

- First, econometric models.
- An econometric model is a set of equations, estimated from past data, that links economic variables.
- Growth depends on interest rates, on consumer spending, on exports, and so on.
- Its strengths are real.
- It is rigorous, it gives a number, and you can re-run it under different assumptions: what if taxes rise, what if oil doubles?
- That makes it the right tool for what if questions.
- The weaknesses are just as real.
- It is complex, it needs the links it found in the past to stay stable, and so it tends to miss turning points.
- Fitted in calm years, it simply extends the calm.
- For Karvia, Dana's model says growth of two point four per cent, which sounds comfortable.

3 Method two: leading indicators

- New orders, building permits, curve slope
- They tend to move ahead of activity
- Strength: simple, often signal turns
- Weakness: false signals, links can change
- Ten components; 3-month 4.2%, 10-year 3.6%

IN THE LESSON

- Second, leading indicators.
- These are series that tend to move before the economy does: new orders for factories, permits to build houses, and the slope of the yield curve, which is the long bond yield minus the short rate.
- A common way to sum up a group of them is a diffusion index, which we meet shortly.
- Their strength is simplicity.
- They are easy to follow, and they often signal turns early.
- Their weakness is false signals.
- An indicator can fall and the economy carry on regardless, and a link that worked for decades can change when the economy changes.
- Dana tracks ten components for Karvia.
- The three month rate is four point two per cent, against a ten year yield of three point six.
- Keep those two numbers in mind.

4 Dana's ten indicator components

Components (out of ten)

Rising	**3**
Flat	**2**
Falling	**5**

IN THE LESSON

- Here are Dana's ten leading indicator components for Karvia, drawn as bars.
- The vertical axis counts components, out of ten.
- Three are rising, shown in the first bar.
- Two are flat, shown in the second.
- Five are falling, shown in the third.
- Notice that the picture is lopsided, because the falling bar is the tallest.
- A single indicator can mislead, but when more components fall than rise, the group is telling a story.
- The next slide turns this picture into one number that Dana can compare from month to month, so she can watch whether the economy is improving or getting worse.

5 Method three: the checklist

- Judgement across a wide range of indicators
- Strength: flexible, absorbs structural change
- Weakness: subjective, slow, hard to test
- Like a doctor reading the whole chart

IN THE LESSON

- Third, the checklist approach.
- Here the analyst looks across a wide range of indicators, output, jobs, prices, credit, confidence, even politics, and weighs them using judgement, much like a doctor reading a patient's whole chart rather than a single blood test.
- Its great strength is flexibility.
- It can absorb a structural change, such as a new technology or a new law, that no model has ever seen.
- Its weakness is that it is subjective.
- Two analysts can read the same list and reach different answers.
- It also takes time, and it is hard to test whether it works.
- A checklist is only as good as the person holding it.
- That is why Dana uses it last, to weigh the other two.

6 Summing up indicators: the diffusion index

Diffusion = (Rising + 0.5 × Flat) ÷ Total × 100

Rising components	Count of series going up
Flat components	Counted at half weight
Total components	All series tracked
Diffusion index	Below 50% = mostly falling

IN THE LESSON

- To turn the bars into one number, use a diffusion index.
- Count the components that are rising, add half of the ones that are flat, divide by the total number of components, and multiply by one hundred.
- Flat components count as half because they are neither helping nor hurting.
- A reading of fifty per cent means as many are rising as falling.
- Above fifty means the group is mostly rising, and below fifty mostly falling.
- For Dana's group of ten, three are rising and two are flat, so the top of the fraction is three plus one, which is four.
- Four divided by ten is forty per cent.
- That is below fifty, and it points to a weakening economy.

7 Example 1: Dana's one-year tilt

Karvia. Equity policy range 40% to 60%, now 52%

Econometric model	fitted to calm years	**2.4% growth**
Diffusion index	(3 + 0.5 × 2) ÷ 10	**40%**
Curve slope	3.6 − 4.2	**−0.6 pts**
Checklist	two signals agree	**slowdown**
Recommendation	equities 52% to 49%	**add duration**

IN THE LESSON

- Now Dana pulls it together for the trustees.
- The model says growth of two point four per cent, but it was fitted in calm years.
- The diffusion index is forty per cent, below fifty, so more components are falling than rising.
- The curve slope is the ten year yield of three point six minus the three month rate of four point two, which is minus zero point six points.
- The curve is inverted, a classic early warning.
- The checklist step weighs all three.
- Two warning signals agree, and nothing structural explains them away, so a slowdown is more likely than the model shows.
- Her recommendation is modest: cut equities from fifty two per cent to forty nine, inside the forty to sixty per cent policy range, and add duration.

8 Match the method to the question

Match the method to the forecasting problem

Question	Best-fit method
Effect of a tax rise	Econometric
Is a turn coming?	Leading
Effect of new technology	Checklist
The real decision	Use all three

IN THE LESSON

- The decision is to match the method to the problem, so here is Dana's rule of thumb.
- If the trustees ask what happens to growth if the government raises the corporate tax rate, that is a what if question, and only an econometric model can re-run the world with a new tax rate.
- If they ask whether a turn is coming, use leading indicators, which are built to spot turns early.
- If they ask what a new technology, such as cheap battery storage, will do to the economy, there is no history to fit, so the checklist is the right tool.
- The exam trap is to pick a favourite for every question, or to treat one leading indicator as proof.
- For the real decision, Dana uses all three, and agreement between them is what builds confidence.

9 The seasons of the cycle

- Five phases: recovery, early, late, slowdown, contraction
- Each phase has a typical market pattern
- Question one: what to do over the next year
- Question two: what to assume over ten years

IN THE LESSON

- Think of the seasons.
- You pack differently for spring than for deep winter, and you do not confuse a warm spring afternoon with a permanent climate.
- The business cycle has seasons too.
- We split it into five phases: initial recovery, early expansion, late expansion, slowdown and contraction.
- Each phase has a typical market pattern, and that matters because the Brightwater trustees are really asking two different questions.
- What should we do over the next year, and what return should we assume over the next ten years?
- The phase answers the first question strongly and the second only weakly.
- Keep that split in mind, because the exam tests exactly this.

10 The cycle drawn as a wave

Chart: Economic activity vs Time

- Initial recovery
- Early expansion
- Late expansion
- Slowdown
- Contraction

IN THE LESSON

- Here is the cycle drawn as a wave.
- The horizontal axis is time and the vertical axis is economic activity.
- Start at the bottom left.
- The first climb out of the low point is the initial recovery.
- As the climb continues we reach early expansion, and then late expansion, close to the top, when spare capacity is running out.
- Once activity turns down we are in the slowdown, and the fall that follows is the contraction.
- Then the wave bottoms out and the whole thing starts again.
- Notice that the phases are stretches of the wave, not single points.
- Real cycles vary in length and in depth, so the hard part is deciding which stretch the economy is in right now.

11 What each phase tends to look like

Typical market pattern, phase by phase

Phase	Typical pattern
Initial recovery	Equities rally
Late expansion	Bonds suffer
Slowdown	Curve flattens
Contraction	Yields fall

IN THE LESSON

- Each phase comes with a typical pattern, so let us walk the table, which shows four of the five.
- In the initial recovery, short rates are still low, bond yields are near their bottom, and equities rally on hopes of better profits.
- In late expansion, inflation and policy rates rise, bonds suffer and equities may stall.
- In the slowdown, the yield curve flattens or even inverts, and credit spreads widen.
- In contraction, yields fall, and cyclical equities, the shares of firms most sensitive to the cycle, underperform.
- These are typical patterns, not laws.
- Use them as a starting guess, then check the data against Karvia.

12 Short horizon, long horizon

- Short horizon (one year): the phase dominates
- Tactical views follow the phase
- Long horizon (ten years): the cycle averages out
- Trend growth, inflation, starting valuation rule
- Never carry a phase return into the policy portfolio

IN THE LESSON

- Now the two horizons.
- Over a short horizon, say one year, the phase dominates expected returns, because earnings and interest rates swing sharply with the cycle.
- So tactical views follow the phase.
- Over a long horizon, say ten years, a whole cycle passes.
- The good years and the bad years average out, and what is left is trend growth, inflation and the valuation level you start from.
- That last item matters.
- A market that starts the decade expensive tends to deliver less, so the cycle does not vanish completely.
- The mistake is to carry a one year number into a ten year plan.
- Next, Dana shows the trustees the size of that mistake.

13 Building a long-horizon return

Return ≈ Yield + Growth + Drift
Drift = (P/E end ÷ P/E start)^(1/n) − 1

Dividend yield	Cash paid out each year
Trend nominal growth	Real growth plus inflation
Valuation drift	P/E change, per year
Long-run return	Input for the policy plan

IN THE LESSON

- To build a long horizon number, use three pieces.
- The first is the dividend yield, the cash the market pays out each year.
- The second is trend nominal growth, which is real growth plus inflation, the pace at which earnings grow in the long run.
- The third is valuation drift, the yearly effect of the price to earnings ratio moving from where it is today to where you expect it to be.
- Drift equals the ending ratio divided by the starting ratio, raised to the power of one over the number of years, minus one.
- If the ratio is expected to fall, drift is negative and eats into the return.
- If it stays put, drift is nothing at all.

14 Example 2: one year against ten

Earnings +10%; yield 2.5%; trend 4.5%; P/E 20 to 17

One-year view	2.5 + 10	**12.5%**
Valuation drift	(17 ÷ 20)^(1/10) − 1	**−1.6%**
Ten-year view	2.5 + 4.5 − 1.6	**5.4%**
Policy input	use 5.4, not 12.5	**5.4%**
Overstatement	12.5 − 5.4	**7.1 pts**

IN THE LESSON

- The trustees are told Karvia is in early expansion, and earnings should rise ten per cent next year.
- The dividend yield is two point five per cent, trend nominal growth is four point five, and the price to earnings ratio is twenty today and expected to be seventeen in ten years.
- For one year, take the yield plus the ten per cent earnings growth, with the ratio steady: twelve point five per cent.
- For the drift, seventeen over twenty, to the power one tenth, minus one, is minus one point six per cent a year.
- The ten year view is two point five plus four point five minus one point six, about five point four per cent.
- That is the policy input.
- Using twelve point five would overstate it by seven point one points a year, which is a big error.

15 Two horizons, two answers

Expected return (% a year)

One-year tactical	**12.5%**
Ten-year strategic	**5.4%**
Overstatement	**7.1**

IN THE LESSON

- Here is the same comparison as bars.
- The vertical axis is the expected return in per cent a year.
- The first bar is the one year tactical view, twelve point five per cent, which rests on the phase.
- The second is the ten year strategic view, five point four per cent, which rests on trend growth and the starting valuation.
- The third bar is the gap between them, seven point one points.
- That is how much the policy portfolio would overstate equities if the trustees projected the phase forward.
- The recommendation: express the early expansion view as a modest tactical overweight inside the ranges, and set the strategic weights from the lower number.

16 Mistakes so far

- One favourite method for every question
- One leading indicator treated as proof
- A smooth model forecast taken as a promise
- A phase return projected into the policy plan
- Misjudging the phase: cycles vary in length, depth

IN THE LESSON

- Time to stop and collect the mistakes so far.
- One: picking a single forecasting method as your favourite and using it for every question.
- Two: treating one leading indicator as proof of a turn, when false signals are common.
- Three: reading a model's smooth forecast as a promise that growth will not turn.
- Four: projecting a phase return into a strategic horizon, as we just saw.
- Five: misjudging the phase, because cycles vary in length and in depth, so the same point in time can sit in different phases for different cycles.
- Slow, careful reading of the question prevents most of these.

17 Prices, expectations and the surprise

- Markets price in expected inflation
- Returns respond to the surprise, not the level
- Inflation lags the cycle: up late, down in contraction
- Three states: in line or below, above, deflation

IN THE LESSON

- Think of a price tag in a shop.
- If everyone expects bread to cost a little more next month, they plan for it.
- If it costs a lot more, somebody is caught out.
- Investing is the same.
- Markets price in the inflation they expect, so what moves returns is the surprise, inflation against expectation, rather than the level.
- Inflation also has a rhythm.
- It tends to lag the business cycle: it rises in late expansion as spare capacity disappears, and it falls during contraction.
- Brightwater holds cash, government bonds, equities and property, and Dana must say how each reacts.
- Three states matter: inflation at or below expectations, inflation above expectations, and outright deflation.

18 Inflation trails activity

Chart: Level vs Time through a cycle

- Activity peaks
- Inflation peaks later

IN THE LESSON

- Look at the two lines.
- The horizontal axis is time through a cycle and the vertical axis is the level.
- The green line is activity.
- It climbs, peaks and falls.
- The orange line is inflation.
- It follows activity, but later.
- See how activity has already turned down while inflation is still rising, and inflation only peaks once activity is falling.
- That lag is why central banks often keep raising rates just as the economy begins to slow, and why bond holders can be hurt even while growth fades.
- Inflation then falls during the contraction, and the whole pattern repeats with the next cycle.
- This is a drawing of the idea, not real data.

19 State one: inflation in line or below

Inflation at or below expectations

Asset	Typical effect
Cash	Neutral
Bonds	Benefit
Equities	Benefit
Real estate	Neutral

IN THE LESSON

- First state: inflation at or below what markets expected.
- There is no nasty surprise.
- Cash is neutral, because its rate stays close to where it was.
- Bonds benefit, because yields stay stable or fall, and falling yields lift prices.
- Equities benefit, because costs are predictable and steady rates support valuations.
- Real estate is roughly neutral: rents grow with prices, but there is no extra push either way.
- Brightwater's trustees should read this as the friendly case.
- The danger is to assume it lasts, because the cycle is exactly what turns it.
- Late in an expansion, the surprises start to come from the other side.

20 State two: inflation above expectations

Inflation above expectations

Asset	Typical effect
Cash	Gains
Bonds	Lose
Equities	Hurt
Real estate	Does well

IN THE LESSON

- Second state: inflation above what markets expected.
- Cash gains, because short rates reset upwards if the central bank follows.
- Bonds lose, because yields rise and prices fall.
- Equities are hurt, unless the firms can pass their higher costs on to customers.
- Real estate tends to do well, because rents and replacement costs rise quickly.
- Even there, take care.
- Starting valuations, borrowing and the length of leases can change the outcome.
- A long lease at a fixed rent does not rise with prices, and a heavily borrowed owner suffers when rates climb.
- So the table gives the typical effect, and the details of each holding can reverse it.

21 State three: deflation

Deflation

Asset	Typical effect
Cash	Suffers
High-quality bonds	Gain
Equities	Suffer
Real estate	Suffers

IN THE LESSON

- Third state: deflation, where prices actually fall.
- Cash suffers, because policy rates sit near the zero bound and there is no room to cut further, so savers earn almost nothing while the central bank has little left to use.
- High quality bonds gain, since yields fall and investors rush to safe assets, though weak credits can suffer.
- Equities suffer, because revenues fall in money terms while many costs and debts stay fixed.
- Real estate suffers too, as rents and asset values fall in money terms.
- Deflation is rare, but it is the case that most reverses the usual order of winners and losers, so a pension fund should know it.

22 Bond price change from a yield move

Price change ≈ − Mod. duration × Change in yield
Return ≈ Yield + Price change

Modified duration	Price sensitivity to yields
Change in yield	In percentage points
Price change	Opposite sign to yield move
Starting yield	Income earned in the year

IN THE LESSON

- To put a number on the bond column, we use the duration approximation.
- The percentage change in a bond's price is roughly minus the modified duration times the change in its yield, measured in percentage points.
- Modified duration is the sensitivity of the price to yields, so the longer the duration, the bigger the loss for the same rise in yields.
- The minus sign is the whole story: yields up, price down.
- Then the total return over the year is roughly the starting yield, the income, plus the price change.
- The approximation ignores convexity, which makes real losses slightly smaller, but it ranks the cases correctly, and it is the method the exam expects.

23 Example 3: the same level, different surprises

Bonds: yield 4.5%, modified duration 6

Expected 2.5, got 2.5	no surprise	**4.5%**
Expected 2.0, got 3.0	yields +0.75	**surprise +1**
Price effect	−6 × 0.75	**−4.5%**
Total return	4.5 − 4.5	**0.0%**
If inflation falls to 1.0	yields −0.75: 4.5 + 4.5	**9.0%**

IN THE LESSON

- Dana tests Brightwater's government bonds, which yield four point five per cent with a modified duration of six.
- In the first year the market expected two point five per cent inflation and got two point five.
- There is no surprise, yields do not move, and the bond returns its four point five.
- In the second year the market expected two and inflation came in at three, a one point surprise, and suppose yields rise by zero point seven five.
- The price effect is minus six times zero point seven five, minus four point five per cent.
- The total return is four point five minus four point five, which is zero.
- If inflation had instead fallen to one, and yields had fallen by the same zero point seven five, the bond would have returned nine, which is a much happier result.

24 Recommendation: if inflation surprises up

- Risk: inflation surprises above expectations
- Halve duration, 6 to 3: a 0.75 rise costs 2.25%, not 4.5%
- Hold some cash; favour firms that pass costs on
- Property: a partial hedge, check leases and debt
- Could go wrong: inflation falls and bonds win

IN THE LESSON

- Now the recommendation.
- Suppose the trustees ask what happens to the duration tilt if inflation surprises on the upside.
- Dana has four answers.
- Keep the tilt modest.
- If duration is cut from six to three, the same yield rise of zero point seven five costs two point two five per cent instead of four point five.
- Hold some cash, which gains as short rates reset upwards.
- Favour equities of firms that can pass costs on, and treat property as a partial hedge only, because leases and borrowing matter.
- What could go wrong?
- If inflation falls instead, the longer bonds would have done better, so the tilt must stay small enough to live with either outcome.

25 The thermostat and the heating

- Monetary: short rates, credit, the exchange rate
- Fiscal: taxes and spending, through the deficit
- Both work with long, variable lags
- Is each pushing the economy or holding it back?

IN THE LESSON

- A thermostat in a house is a good picture.
- If the room is too cold the heating goes on, if too hot it goes off, but the pipes take time to warm, so you can overshoot.
- Central banks and governments are the thermostat and the heating of the economy, and both work with long and variable delays.
- Monetary policy, run by the central bank, works through three channels: short term interest rates, credit conditions and the exchange rate.
- Fiscal policy, run by the government through taxes and spending, works through the budget deficit.
- Dana's job is to judge whether each is pushing Karvia forward or holding it back, because together they shape the cycle the whole portfolio sits in.

26 The Taylor rule

Rate = Neutral real + Expected inflation + 0.5 × Output gap + 0.5 × (Inflation − Target)

Neutral real rate	Neither speeds nor slows
Expected inflation	Added to get neutral nominal
Output gap	Output minus potential, %
Inflation gap	Inflation minus the target
Target policy rate	Benchmark, not a forecast

IN THE LESSON

- The Taylor rule is a benchmark for where the policy rate should sit.
- Start from the neutral nominal rate, which is the neutral real rate plus expected inflation: the rate that neither stimulates nor restrains.
- Then add two reactions.
- Add half of the output gap, which is how far output sits above or below its potential.
- If output is above potential, the rule says raise the rate.
- And add half of the inflation gap, which is inflation minus the central bank's target.
- If inflation is above target, the rate goes up again.
- A negative output gap, or inflation below target, pulls the rate down.
- It is a benchmark for judging the stance, and not a forecast of what the bank will do.

27 Example 4: the rule applied to Karvia

Neutral real 1.0%; inflation 2.5% vs 2.0%; gap −1.0%

Neutral nominal rate	1.0 + 2.5	**3.5%**
Output gap term	0.5 × (−1.0)	**−0.5**
Inflation gap term	0.5 × (2.5 − 2.0)	**+0.25**
Rule rate	3.5 − 0.5 + 0.25	**3.25%**

IN THE LESSON

- Dana applies the rule to Karvia.
- The neutral real rate is one per cent and expected inflation is two point five, so the neutral nominal rate is three point five.
- Output is one per cent below potential, so the output gap is minus one, and half of it is minus zero point five.
- Inflation is two point five against a target of two, a gap of half a point, and half of that is plus zero point two five.
- Add them: three point five, minus zero point five, plus zero point two five, gives three point two five per cent.
- That is the benchmark.
- The two reactions pull in opposite directions, and in Karvia, weak output wins.

28 Fiscal policy: watch the change

Narrowing restrains growth

Deficit 4.0% of GDP → Plan 2.5% of GDP → Narrows 1.5 pts: drag

Widening stimulates growth

Deficit 2.0% of GDP → Plan 3.5% of GDP → Widens 1.5 pts: boost

IN THE LESSON

- Now fiscal policy, where the common mistake lives.
- What matters is the change in the deficit, not its level, and it is best judged on the cyclically adjusted deficit, which strips out the automatic effect of the cycle itself.
- Follow the top row.
- Karvia's cyclically adjusted deficit is four per cent of G D P this year.
- The plan for next year is two point five per cent.
- So it narrows by one point five points of G D P.
- The government is still borrowing, but it is withdrawing spending power from the economy, a drag on growth.
- The bottom row is the opposite.
- A deficit that widens from two per cent to three point five is a boost, whatever the starting level.

29 The policy mix

Reading the two tools together

Policy mix	Likely effect
Easy money, easy fiscal	Strong growth
Tight money, tight fiscal	Weak growth
Easy money, tight fiscal	Mixed
Tight money, easy fiscal	Mixed

IN THE LESSON

- The two policies combine, so Dana reads them together.
- When money and fiscal policy are both easy, they push the same way and support strong growth.
- When both are tight, they hold growth back and the result is weak growth.
- When one is easy and the other tight, the tools pull against each other, and the result is mixed.
- The outcome then depends on which is stronger, and on how fast each works.
- This is why a forecaster never judges the central bank alone.
- A bank that is easing into a government that is cutting spending may achieve little, while a bank that is tightening against a large fiscal stimulus may find itself pushing against a strong tide.

30 Example 5: Dana's policy verdict

Policy rate 4.25%; deficit cut from 4.0% to 2.5% of GDP

Taylor-rule rate	from the last example	**3.25%**
Actual policy rate		**4.25%**
Monetary stance	4.25 − 3.25	**1.00 tight**
Fiscal stance	deficit 4.0 to 2.5	**1.5 pts tight**
Combined	both tight	**weak growth**

IN THE LESSON

- Now Dana combines the two for the trustees.
- The rule rate is three point two five per cent, and the actual policy rate is four point two five.
- So money is one full point tighter than the rule suggests, and the bank has both room and reason to ease.
- On the fiscal side, the deficit narrows by one point five points of G D P, which is restrictive.
- Both levers are tight, so growth is held back.
- Her recommendation is to keep the modest duration tilt and the small equity trim, because weak growth and rate cuts favour longer bonds.
- What could go wrong?
- The market may already have priced the cuts in, the lags are long and variable, and an inflation surprise could stop the bank easing.

31 Mistakes with policy

- Deficit level is not the test: the change is
- Use the cyclically adjusted deficit
- Taylor rule is a benchmark, not a forecast
- Both tools act with long, variable lags
- A mixed policy mix gives an unclear result

IN THE LESSON

- Here are the traps for policy.
- One: judging fiscal policy by the level of the deficit instead of the change.
- A deficit that is shrinking is restrictive, even while it stays positive, and a small deficit that is widening is stimulative.
- Two: using the reported deficit instead of the cyclically adjusted one, which mixes the economy's own swings into the verdict.
- Three: treating the Taylor rule rate as a forecast.
- It is a benchmark for judging whether policy is tight or easy.
- Four: forgetting that both tools act with long and variable lags, so effects arrive over quarters, not days.
- Five: calling a mixed policy mix strong or weak without asking which tool dominates.

32 Recap: the lesson in four moves

- Match method to question; use all three
- Phase drives one year; trend drives ten years
- Inflation surprise moves returns, not the level
- Taylor benchmark and the change in the deficit

IN THE LESSON

- Let us pull the lesson together.
- Move one: match the forecasting method to the question.
- Econometric models for what if questions, leading indicators for turns, a checklist for structural change, and all three for a real decision.
- Move two: let the phase drive the one year tactical view, but build the ten year view from yield, trend growth and valuation drift.
- Move three: judge inflation by its surprise against expectations, since bonds lose and cash gains when it comes in high, and deflation reverses the usual order.
- Move four: judge policy by the Taylor rule benchmark and by the change in the deficit, and remember the lags.
- Each recommendation comes with what could go wrong.

33 Try three quick questions

1. 5 rising, 2 flat, 3 falling of ten. Diffusion index?
   Answer: (5 + 0.5 × 2) ÷ 10 = 60%.
2. Yield 3.0%, duration 8, yields +0.5 pts. Return?
   Answer: −8 × 0.5 = −4.0; 3.0 − 4.0 = −1.0%.
3. Neutral 1.5%; inflation 2.0% = target; gap −2.0%. Rate?
   Answer: 1.5 + 2.0 − 1.0 + 0 = 2.5%.

IN THE LESSON

- Now try three quick questions yourself.
- Pause after each one.
- Question one.
- A strategist tracks ten indicators: five rising, two flat and three falling.
- What is the diffusion index?
- Five plus one is six, divided by ten, so sixty per cent.
- Question two.
- A bond yields three per cent with a modified duration of eight, and a surprise in inflation lifts yields by half a point.
- What is the return?
- Minus eight times a half is minus four, and three minus four leaves minus one per cent.
- Question three.
- The neutral real rate is one and a half, inflation equals its target at two, and the output gap is minus two.
- What is the Taylor rule rate?
- One and a half plus two minus one is two and a half per cent.
- Well done, and keep practising.