SMA GESTION

Funds and commodities

Alternatives for all

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Association Française Cotonnière

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01. Futures (and options) markets

- Where commercial and non-commercial meet

Futures markets : what for?

Many theories have been put forward. Three stand out, as nicely recapitulated by Pr. Antal Fekete in his article: “reminiscenses of an amateur economist…” (2013):

•The casino / the price is right

•Markets for Insurance services / the price insurance theory

•Markets for warehousing services

The casino / the price is right (1)

Theory put forward, inter alia, by C. O. Hardy (1940)

•Entertainment? Socially acceptable gambling? Disconnection from reality?

•Limited descriptive and explanatory power of this theory. The basis (defined here as the spread between futures and spot prices) is generally stable and relatively tight. What disconnection then?

Source: fee.org

The casino / the price is right (2) – contributions

- Contribution #1 of this theory: price discovery
    - As long as it has not been offered and taken in the market, no one can tell whether the price is right or not.
    - The speculators dare… That's actually how you can tell them apart
    - Is anything priced without an ounce of speculation? Even in uncertain environment, decisions have to be made sooner or later

- Contribution #2: volatility brings us together
    - Speculators looking for high returns are attracted by volatility in commodity futures markets
    - Commercial operators can be interested in "hedging" against volatility risk

Markets for insurance services (1)

Futures would be intended for hedging against price risk

•The most widespread conception, derived from the theory of normal backwardation developed by John Maynard Keynes (in Treatise on Money, 1930)

- in that theory, the basis is “normally” negative and stands as a kind of insurance premium paid by producers prone to “hedge” to speculators who are risk takers.

•Imperfect hedge. The price risk is replaced with the basis risk

- The basis fluctuates too
- Price risk is finite (zero is the limit)
- Basis risk is infinite

Markets for insurance services (2) – limitations

- The basis is identified as a risk but this approach does not help understand it
    - Few empirical illustrations support this theory.
    - “Speculators in wheat futures taken as a group have in the past carried the risks of price changes on hedged wheat and have received no reward for the service, but paid heavily for the privilege. ” (Working, 1931)

- The insurance analogy is not really accurate
    - Past occurrences do not help
    - Wild fluctuations and black swans recur often
    - Where is the claim? For whom?
    - Prevention?

Not a much greater explanatory power in terms of risk transfer than the previous approach

Markets for warehousing services (1)

Theory of storage by Working (1933) extended by Kaldor (1939)

The basis and its fluctuations can be seen as risks but they are opportunities as well. Illustrates the importance of the middleman. Very schematically:

•If basis > cost of carry => middlemen are incited to build up stocks (cash and carry)

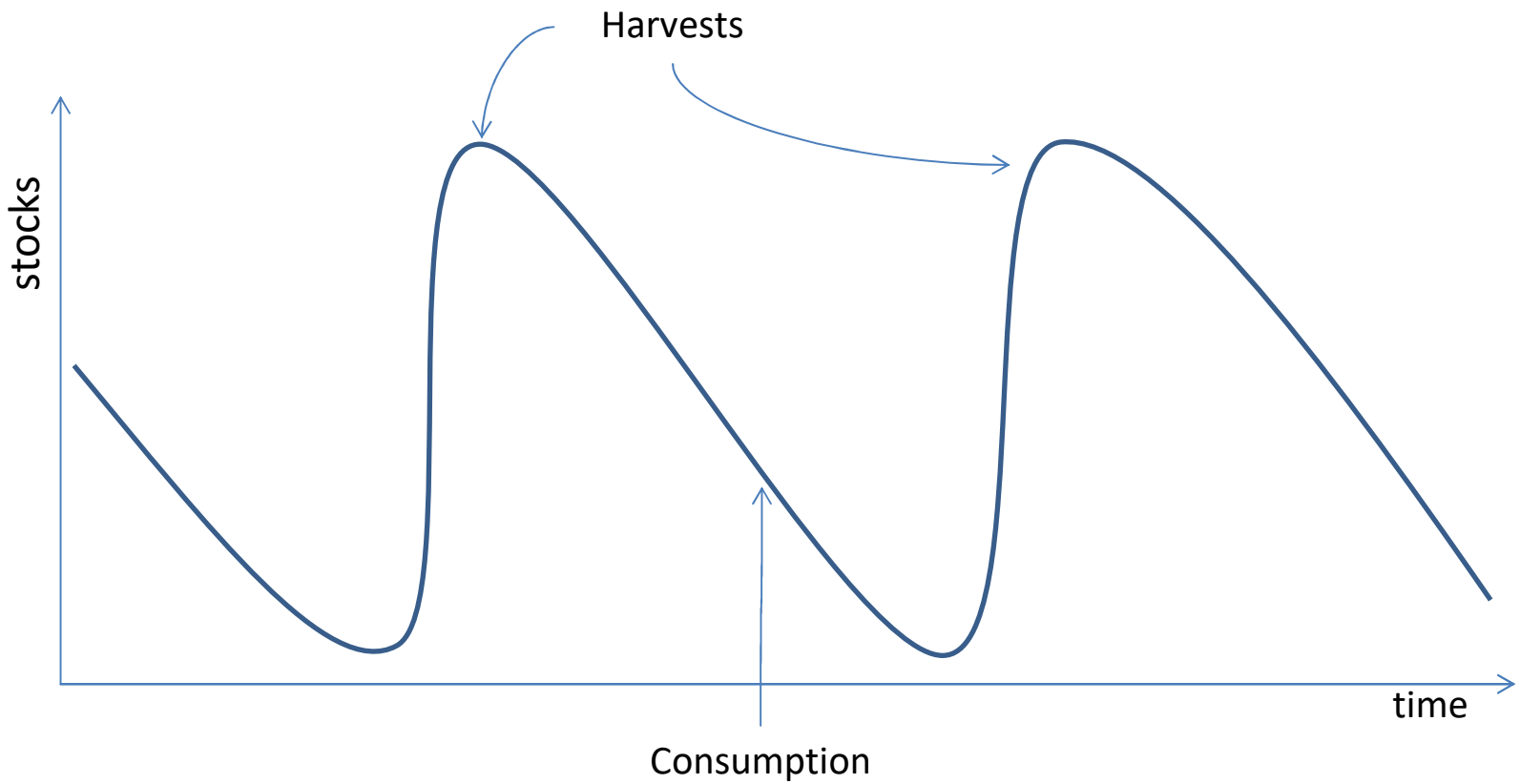
•If basis << 0 => middlemen are incited to withdraw inventories (decarry)

•Cost of carry = supply chain costs + opportunity costs

- Suppply chain costs include storage, transportation and insurance
- Opportunity costs include forgone yield on cash that could have been invested in interest-bearing assets instead of physical inventories

Markets for warehousing services (2)

- Wheat inventories cycle



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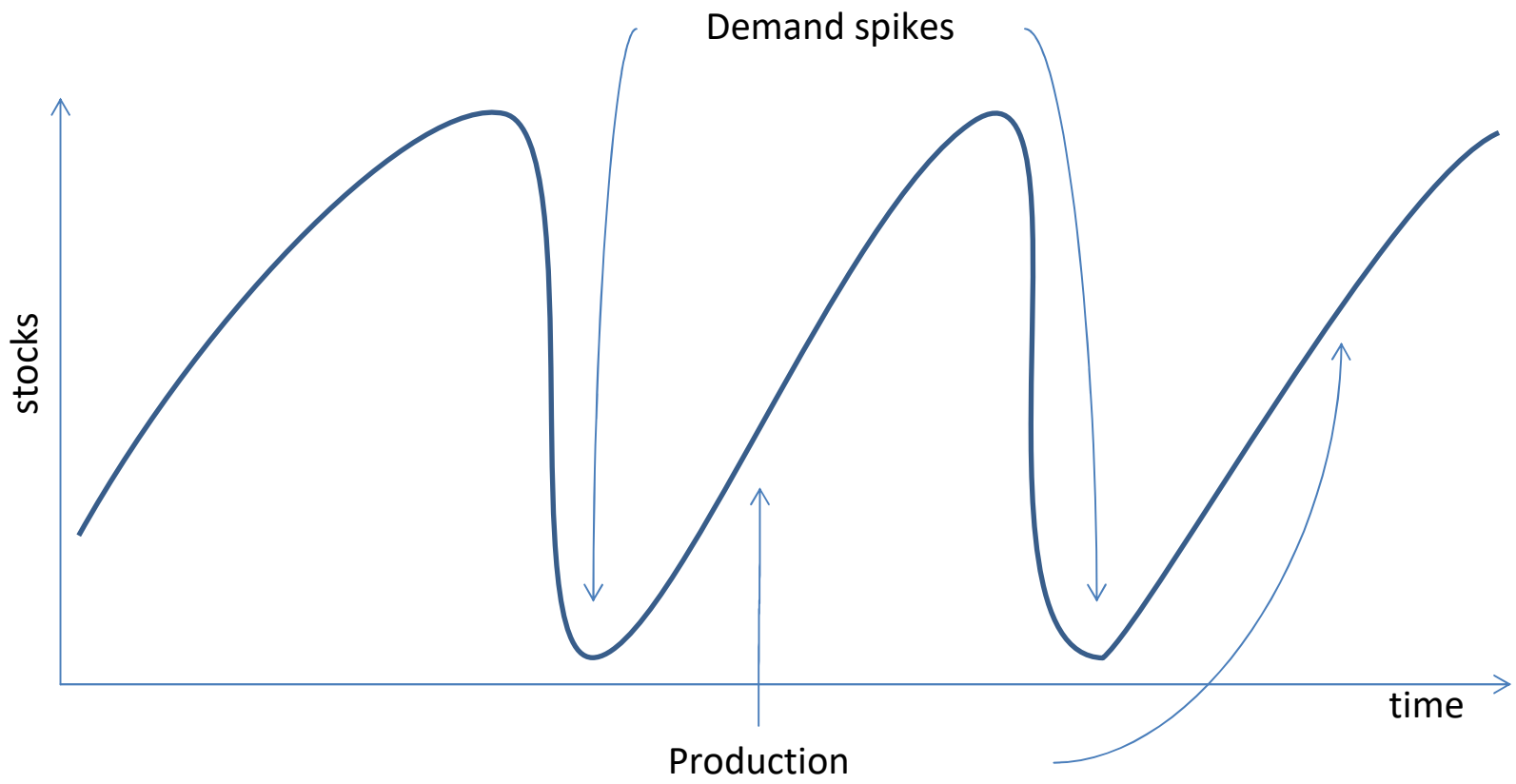
Markets for warehousing services (3)

- Natural gas inventories cycle



Markets for warehousing services (4)

Problem above : production, processing and consumption do not take place in sync

Solution provided by the futures markets: sales can be separated from marketing operations

•Producers and processors can trade en bloc and avoid operating costly storage facilities

•Middlemen

- focus on storage, develop appropriate hubs and spokes
- place the supply piecemeal while trading the basis. Flat price generally do not matter to them

•Speculators generally keep the remaining exposure to flat prices

More specialization and more efficiency

Markets for warehousing services (5)

All along the inventories cycle:

Supply = production + stocks withdrawals = consumption + storage = Demand

•Interactions between futures and spot markets and arbitrages between bases and cost of carry help curtail shortages and oversupply risks

•The fluctuations of the basis, arbitrages involved consequently enable fluid flows of goods between those who need it most and those wo need to sell it asap

•The basis also help warehousemen allocate space between competing commodities (corn and wheat for instance)

Markets for warehousing services (6)

Futures markets help manage the pipeline of commodities through the supply chain and various stages of processing

Close to a ticket system in the airline industry

•You book your ticket weeks or months before your flight

•Few seats are empty

•A plane can land / take off two or three minutes after the preceding aircraft

•Nobody has paid the same price but tickets are affordable as high fixed costs are spread over large volumes

Similarly, futures markets offer planning and yield management tools to keep capacity utilization rates at high levels

Futures markets – first thoughts (1)

"It takes every kind of people to make the world go 'round"… (Robert Palmer, 1978)

•Different purposes

- views on flat price and on (often long term) economic themes
- Views on the basis and on supply chain issues
- Prices are driven by both themes. Sometimes, one takes the lead until the situation changes
- Risks for some, opportunities for others until things change

•Different time horizons

- Speculators could be more long-term than you think!
- Some trade the flat price with a view on supply and demand for the commodity
- Other carry inventories and trade the basis with a view on supply and demand of storage solutions

Futures markets – first thoughts (2)

- Futures markets help transfer some risks

- Futures markets help reduce volatilty
    - According to Working (1960), price volatility dropped after the introduction of a futures market for onions in the US
    - According to Grey (1963), price volatility increased after the Onion Futures Act banning futures market for onions was passed

- Pockets of volatility endure
    - Empirically, storage costs seem to be the leading factor well ahead of speculative activity. Natural gas volatility is much higher than gold's
    - Exogenous sources of volatility exist and may be growing

02. Commodity funds

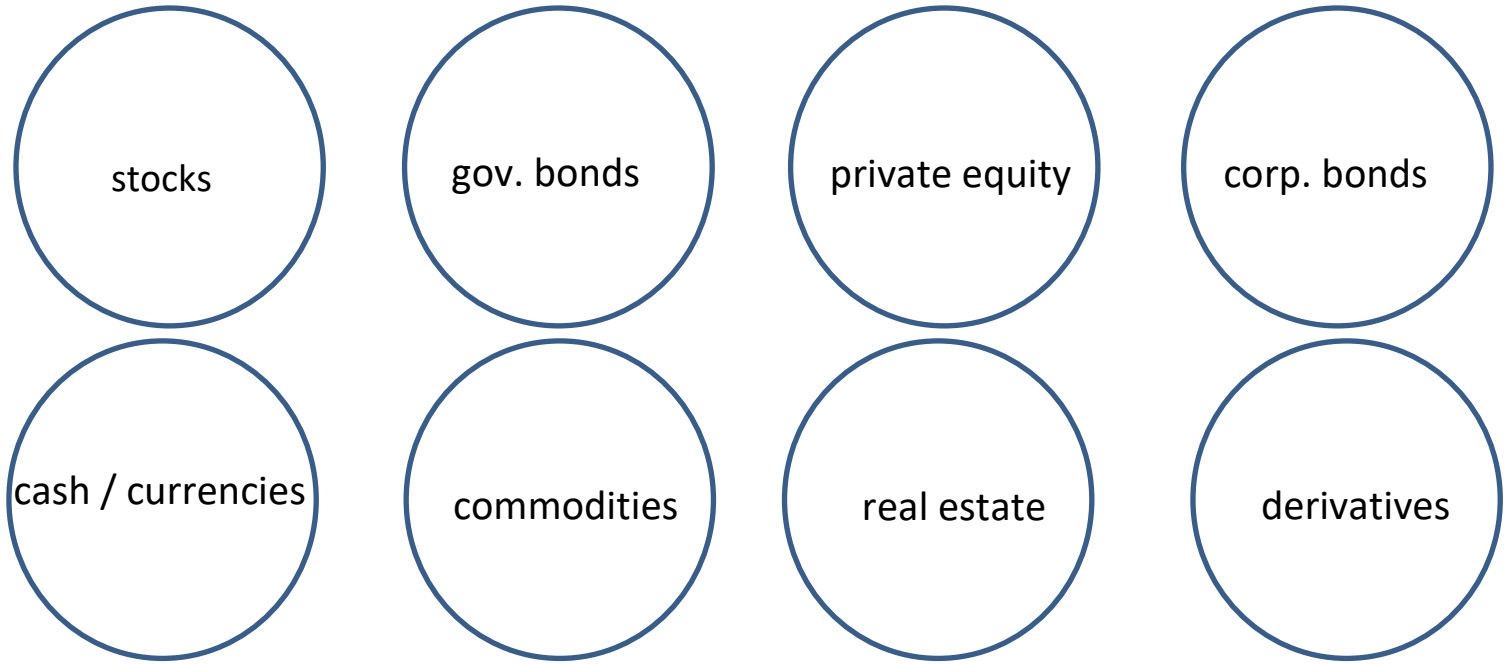
- Environment and strategies

What the asset management industry does

- Our clients have savings i.e. resources they don't need / want to consume now
    - They can hoard
    - Or they can entrust their money to asset managers for more in the future. Not dissimilar from credit
- Money is then invested in a wide array of assets
- Asset managers are somewhat similar to middlemen of the savings / investment management industry
- Trust and responsibility – handle with care

Investment universe (1)

Different asset classes – not necessarily mutually exclusive



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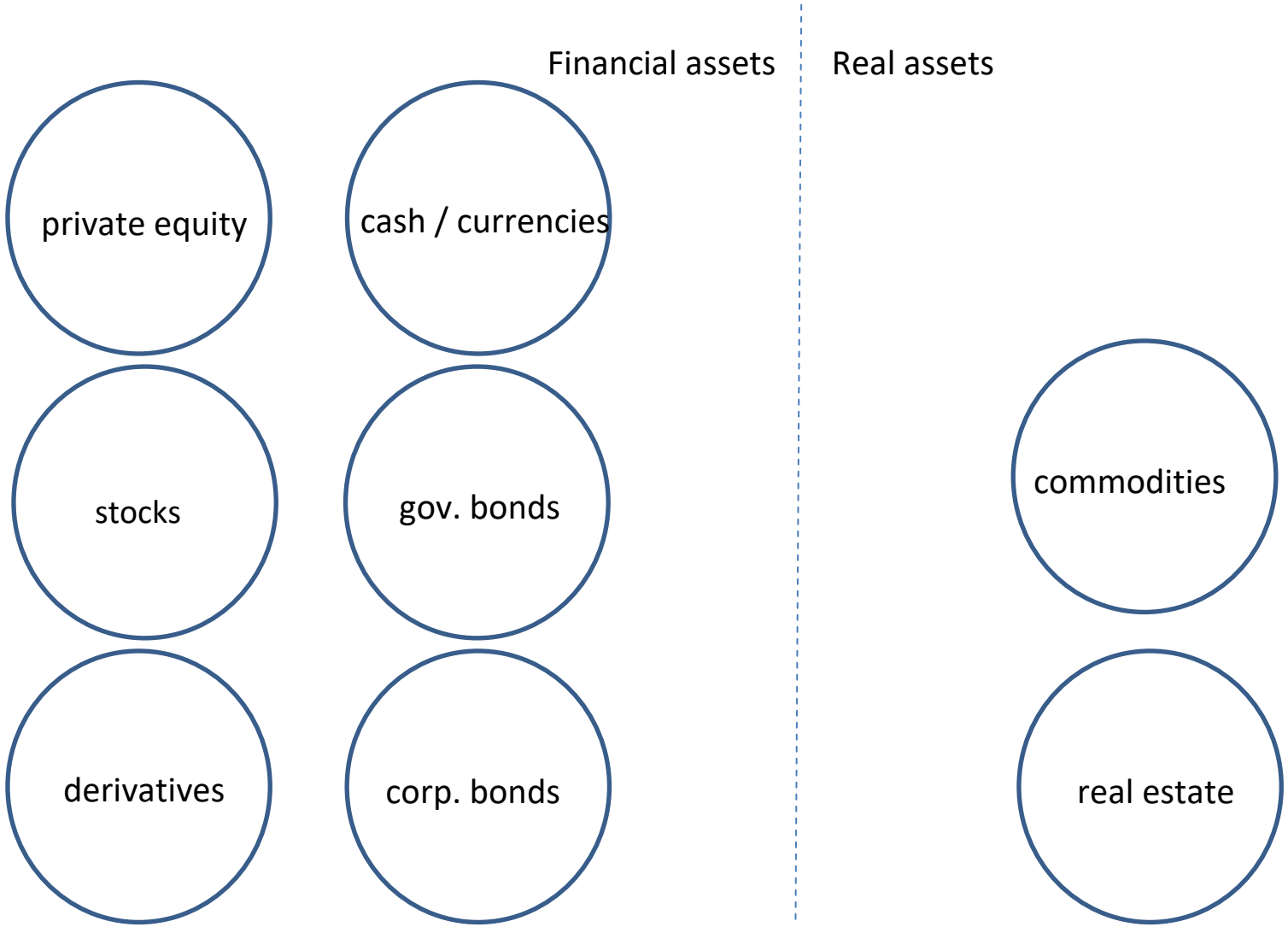
Investment universe (2) – Financial vs real assets



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Investment universe (3) – Assets, yield and credit

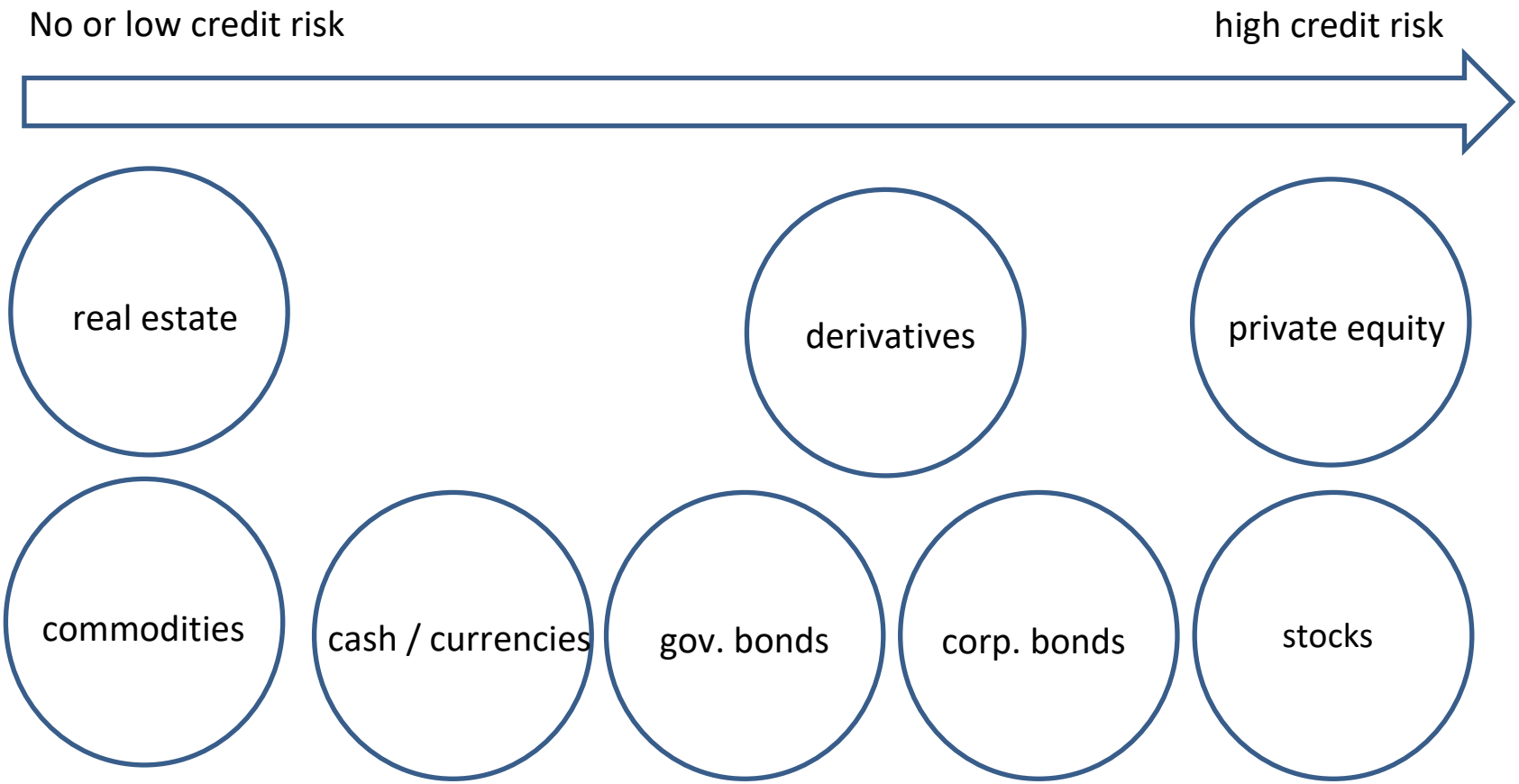
- No real asset intrinsically bears interest

- Yield involves some underlying productive activity and / or some form of credit
    - Money has to be lent on money markets (short maturity bond) or to banks to bear interest
    - Cash under the mattress yields nothing
    - Real estate for own use yields nothing and involves costs

- Commodities are not productive per se but
    - They can be lent / borrowed (carry and decarry)
    - Productive investments in the primary sector need relatively stable / foreseeable prices such as those observable in the futures markets
    - As seen above, speculative activity takes part in price discovery

Investment universe (4)

Assets and financial instruments involve different levels of credit risk (indicative, details matter)



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Investment strategies

In each asset class, one can implement one or more of the following:

Global macro	Buy and hold	Value	Carry	Activist
Growth	Momentum	Volatility	Mean reversal	Event driven
Passive	“Stock” picking	Arbitrage	quantitative	trend following

Money, the root of all evil? (1)

- Money used to be a real asset but is now closer to a financial one
- Currencies can lose value permanently
- Financial assets are labeled in currencies and their nominal yield may not offset such losses

Money, the root of all evil? (2)

- Debasement can be slow and smooth (inflation targeting)

- But sometimes it can be quick and massive: devaluation, high inflation or hyperinflation
    - September 21, 1931: Britain abandoned gold standard and the Pound lost 28% overnight
    - High inflation in the 60's and 70's
    - Zimbabwe, Venezuela
    - Run on money for real assets can take place

- Investors (and companies and households) can change their anticipations and arbitrage quickly

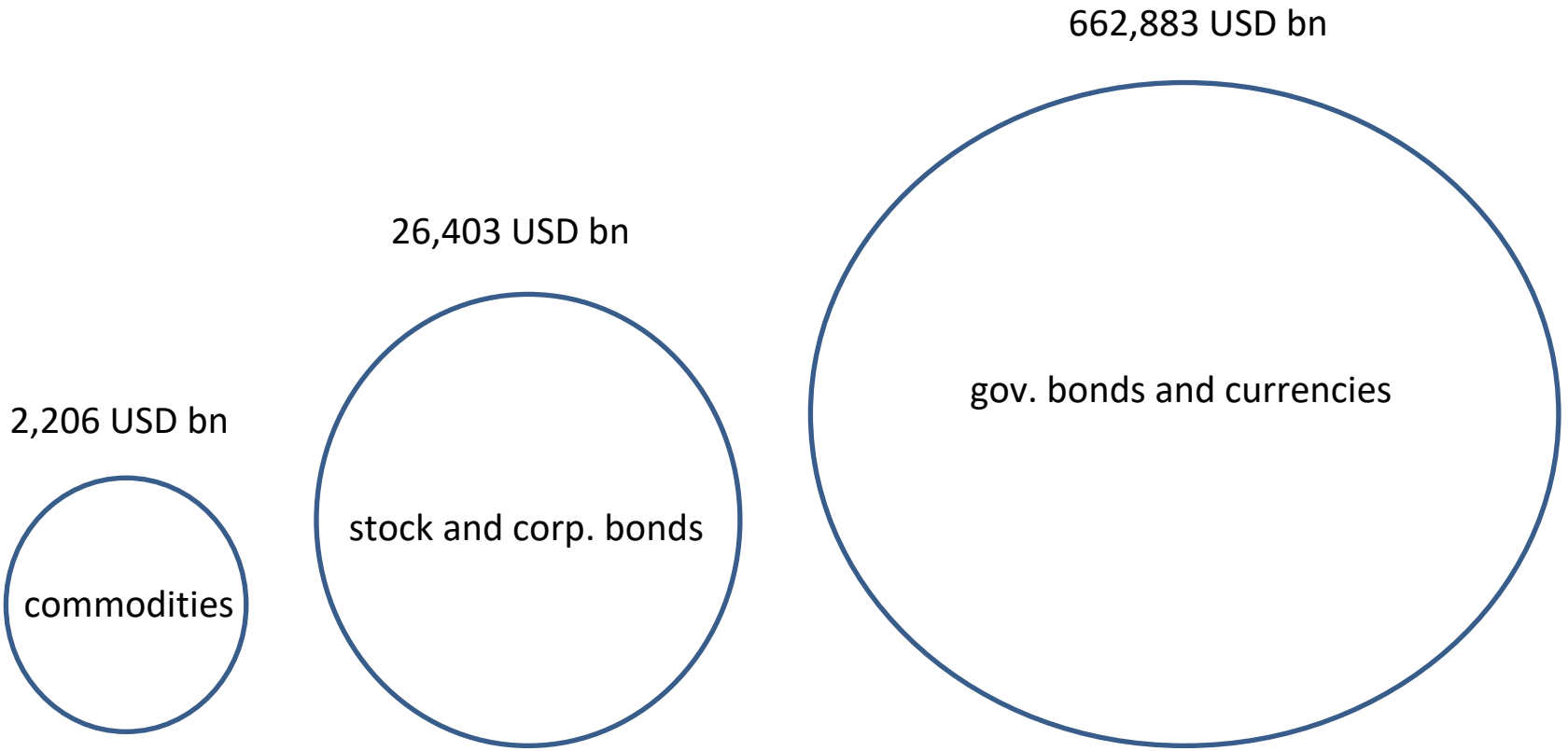
- Volatility of currency parities is a source of volatility for commodity prices

Commodity markets and the rest of the world

With some metrics, commodity markets are small relative to large financial markets

Small moves, arbitrages for a big market may be much more significant for a smaller one

Notional amounts of OTC derivatives in June 2014 (source: BIS)



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Commodities and currencies

Another currency, another story : sugar prices in US dollars and Brazilian real

Source : Bloomberg

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Commodities for diversification (1)

Not necessarily systematic nor in the sense of Markowitz modern portfolio theory

•Markowitz's modern portfolio theory develops a mathematical framework in which an "efficient frontier" can be reached optimizing the returns of a well diversified portfolio

- Diversification reduce overall volatility thanks to (hopefully) low correlation between the components of the portfolio

•That is a great contribution to economics as a science

•In practice, it should be used with caution though

- When stress and volatility return, correlation change, generally for the worse

Commodities for diversification (2)

Decorrelation of commodities from other assets should not be taken for granted

•Some commodities seem to have a life of their own due to their very specific supply and demand characteristics, for instance

- Livestock – epidemics, time needed to grow herds…
- Cocoa, orange juice – weather, harvesting seasons, politics, subsidies

•Other are more connected to the general business cycle

- Gold – dollar strength, interest rates
- Oil – no comment
- (Dr) Copper – China, infrastructures, construction,
- And… cotton – China, consumer moods, general activity and consumption

03. SMA Gestion and commodities

- Philosophy and activity

SMA Gestion's philosophy

- Long term horizon, patient capital – no leverage
- Looking for margin of safety everywhere – Entry point: a key driver of performance
- Waiting for the ''fat pitch'' – opportunistic approach
    - looking for asymetric situations
    - staying on the sidelines is an option
- Commodities can perform better than primary sector companies stocks
    - operational and financial leverage of those companies are two-edged swords
- Understanding what we do
    - Trading « paper » but keeping in mind that futures and options market address actual supply chain issues

SMA Gestion's strategies

- Primary strategies
    - Directional strategies (buy low, sell high)
    - Intercommodity arbitrage

- Cost of carry matters!

- Volatility can be an issue but properly managed it can offer opportunities (optional strategies)
    - The strategies above interact and can be arbitraged with one another – at least partially
    - ''Buy and hold'' and passive investing do not work well for commodity investing over time, in our view

Fundamental analysis

- The first and most important step in our decision making process
    - ‘‘Intelligence gathering’’

- Internal research supplemented by external sources

- Supply and demand
    - Volumes, balances and stocks to use
    - Costs of producers – cost curves
    - Competitive landscape
    - Dynamics of the market (Price elasticity of supply and demand, substitution, etc.)

- Synergies with our research on primary sector companies

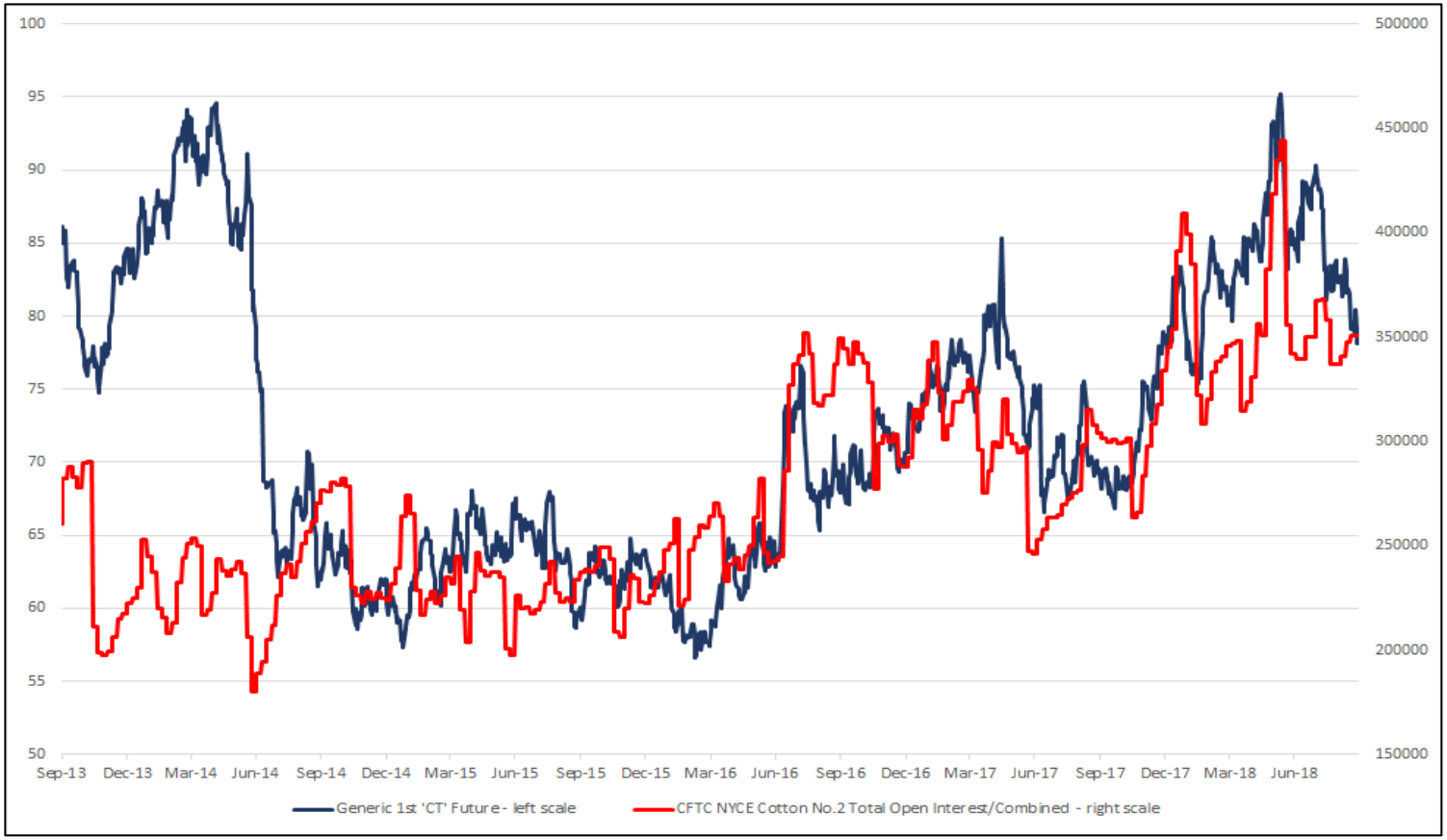
Technical analysis

- Additional margins of safety helpful to find nice entry points. Reconnaissance of the terrain to find the best place to ‘‘land’’
    - Commitment of traders
    - Volatility surface
    - Term curve and inventories

- Attention paid to other markets – especially interest and forex rates!

Technical analysis – positioning matters (1)

Cotton – total open interests and price action



Sources : CFTC, Bloomberg

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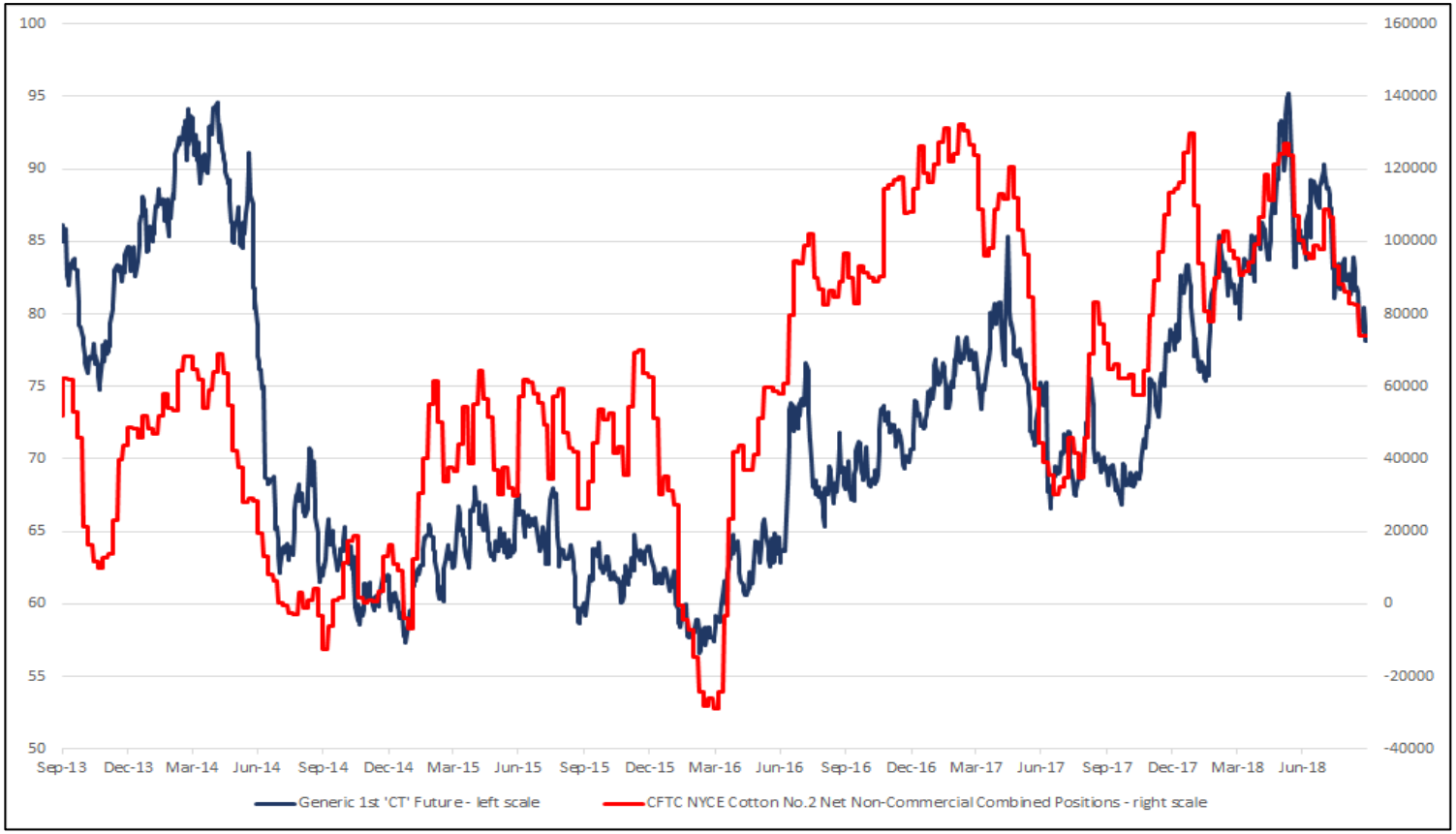
Technical analysis – positioning matters (2)

Cotton – Net non commercial positioning and price action



Sources : CFTC, Bloomberg

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Fund performance – please read the disclaimer

Performances of a commodity fund managed by SMA Gestion and its benchmark

Source : Europerformance

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Experience sharing (1)

- Futures markets provide a lot of useful information
    - Basis vs stocks
    - Commercial and non-com. positioning (total and net, outsiders and insiders involvement)

- Futures markets provide useful tools
    - Basis trading
    - Hedging against volatility – wise use of options can support interesting strategies

Experience sharing (2)

- Grey or black swans happen

- In commodity future markets, we trade more than delivery promises
    - We transfer some risk and some volatility
    - Speculators bring capital and accept some volatility now for future returns
    - Commercial operators hedge against some volatility / uncertainty, forgoing some opportunities relative to the flat price

- That being said, sound balance sheets help everyone
    - More capital = more robustness = better preparedness for volatile times
    - Profits from good years reinvested in equity reduce dependence on external capital providers

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