Nerve centres of the business world, large global capitals attract economic and geopolitical interests, but it's the location of stock markets that decides where banking establishments and investors will set up shop.

### New York in the lead

With an average daily share trading volume of around \$120 billion and a total market capitalization of \$25 trillion in 2020, the New York Stock Exchange (NYSE) makes the Big Apple the centre of global finance. 10% of jobs in New York are related to finance.

## The importance of the Commonwealth: London, Hong Kong and Singapore

With 25% of the world's population and 23% of global wealth in 2020, the Commonwealth is a major player in global finance and economics. Hong Kong and Singapore are the 3rd and 4th financial centres after New York and London.

## "Brexodus" to Paris, Frankfurt and Amsterdam?

While the expected exodus of financial companies from a post-Brexit UK has not yet taken place, European financial centres are focusing on ambitious reforms and fostering the development of FinTech (Financial Technology), transforming themselves into attractive alternatives to the City.

### The international flow of goods

Since traders first took to the rivers to buy and sell amber and tin in the Bronze Age, inland and maritime shipping have driven our world's economic, social and political development. As systems of production have become less vertically integrated, they have evolved into flexible and geographically far-flung supply networks, with the global economy depending more than ever on cross-border trade.

# Ports as catalysts for industrialisation and distribution centres

Before the invention of the aeroplane, the sea had been the best way for settlers, travellers and migrants to travel for centuries. During the industrial revolution, ports acted as a catalyst for industrialisation. While the first ports were focused mostly on shipping, today they are multi-modal distribution centres, combining maritime, inland, road, rail and air routes.

## Largest maritime cargo hubs

In 2019, nine of the worlds ten busiest ports were in Asia, led by Shanghai (43 million containers annually), Singapore and Hong Kong. Dubai came in tenth place, representing the Middle East. In the United States, the neighbouring ports of Los Angeles and Long Beach make up the country's largest container hub. In Europe, it is Rotterdam, Hamburg and Antwerp that are home to the continent's largest ports.

From the empires of antiquity to today's technological hubs, such as Silicon Valley, success has often been associated with a few individual visionaries. A few names stand out over the course of history:

#### State bankers

In the Renaissance, the Medici family not only developed the Italian banking system, but they also shaped European politics by governing Florence and lending money to Kings. In France, Jacques Cœur, a merchant and ship-owner, financed Charles VII's reconquest of French lands held by the English.

#### **Bankers of the Golden Age**

More recently, in the 19<sup>th</sup> century, the Rothschild family expanded its banking empire into the mining and railway industries. In the United States, John Pierpont Morgan not only founded the eponymous bank, but he also built up an empire that was involved in everything from steel and electricity to railways and shipping.

#### **Industrial Tycoons**

Some empire-builders focused on one particular area, like Henry Ford with the automotive industry, or John Rockefeller who built up an oil empire out of nothing during the 20<sup>th</sup> century, which is estimated to be worth almost 350 billion dollars in today's currency.

#### **Contemporary visionaries**

Empire-builders today also associate their fortunes with a vision. Bill Gates, for example, now devotes himself to his humanitarian foundation, while Elon Musk is reinvesting his profits from PayPal into space travel, electric vehicles and artificial intelligence. When a takeover bid is launched, the buyer (the acquirer) makes an offer to purchase all of a company's shares (the target), making it the target company's sole owner or majority shareholder. When the target company is publicly traded, the acquirer will offer a purchase price that is higher than the market price to incentivise shareholders to sell their holdings. Takeover bids may be friendly, with the target company's agreement, or they may be hostile. There are many ways to counteract a hostile takeover bid. Here are just a few.

**1) Divide shareholder control**, using Expanded voting rights or Limited partnerships.

**2) Control change of ownership:** if a potential acquirer is trying to buy up shares in a target company little by little on the open market (a "creeping" takeover strategy), regulators may intervene and order the acquirer to make a definitive offer within a certain time frame (as happened when there were rumours of a takeover of Danone in 2005).

3) Strengthen loyal shareholding and forge alliances, with "white knights": these are strategic partners who merge with the target to increase its value and make it more difficult to acquire.

**4) Poison Pills:** these are accounting, financial and legal measures to prevent a hostile takeover. For example, ownership of a subsidiary that works in a sensitive sector, like Defence, whose acquisition would require various government authorisations.

#### **The Basics**

Money laundering is the process of obscuring the criminal origins of capital: drug trafficking, gun running, corruption, etc. The goal of the operation, which normally involves several steps, is to manufacture a legal source for illicitly acquired money before inserting it into the wider economic system.

## The process of money laundering

Money laundering is generally done in three steps. First, the illicit money enters the financial system through some kind of investment. The second step involves using this money in a large number of transactions to obscure its origins, this is called structuring. Finally, the money is laundered by investing it in various legal activities, such as construction or a business, this is the final step.

## The impact of money laundering on the economy

Money laundering is a kind of financial crime that all countries fight against. It drives corruption and damages the integrity of financial systems and institutions within the country.

Technological progress in e-commerce, the globalisation of financial markets, cryptocurrencies and new financial products have helped to recycle profits from criminal activities, obfuscating the money's origins.

Oil refers to naturally occurring deposits of liquid hydrocarbons, which are extracted through drilling. It is a fossil fuel, which means that it was made from the decomposition of plants and animals. It is therefore a non-renewable resource.

### Primary energy source and the petrochemical industry

Accounting for 32% of primary energy consumption in 2017, oil is the most used source of energy around the world, beating coal (27%) and natural gas (22%). This figure is actually much lower than it used to be, reaching 46% in 1973.

Today, 92% of oil used for energy is used for transportation, in the form of various liquid fuels (diesel, kerosene, petrol).When refined into naphtha, it is also used in the petrochemical industry to produce all kinds of materials: plastics, synthetic fabrics, detergents, fertilisers, cosmetics, lubricants and asphalt.

## The geopolitics of oil

In 2019, the three leading oil producers were responsible for 42% of global production: United States 18%, Russia and Saudi Arabia 12% each. The leading importers of oil are Europe, China, the United States and India, the leading exporters are Saudi Arabia, Russia, Iraq, Canada and the United Arab Emirates.

#### Towards a world without oil?

Oil is responsible for 30% of greenhouse gas emissions around the world. Global CO2 emissions due to oil were estimated to be 10 billion tonnes in 2019, a progression of 30% since 1990.

## Definition

A shell company is a company on paper that has no real activity, it is created to avoid taxes on profits or to launder money. They allow the real owner to mask their identity by using a dummy corporation and/or by only issuing anonymous bearer shares.

Most shell companies are domiciled in "uncooperative tax jurisdictions", i.e. tax havens, such as the Cayman Islands, Samoa, the Seychelles or Fiji, Guam or Panama, whose laws protect banking confidentiality from outside countries.

## Shell companies in the "Panama Papers"

In 2015, an anonymous source leaked tens of millions of documents detailing the tax and legal information for foreign "offshore" entities registered in Panama. A significant portion of these "Panama Papers" recorded the creation of shell companies to launder money or avoid taxes by the law firm Mossack Fonseca.

The scale of these revelations and the inclusion of many current Heads of State and celebrities drew attention to how popular Panama had become as a tax haven. In the end, no large-scale action was taken, or even planned, against the country of Panama itself.

## Blacklisting

This affair would lead the EU to create a blacklist in 2017 for countries with opaque fiscal practices that included Panama and sixteen others. While Panama was quickly taken off of the list, it was added once again more recently. Today, there are thirteen countries on the EU blacklist. Globalisation is a continuous and intensifying process driven by improvements in mobility (people, businesses) and transport. The acceleration of which is notable since the 1970s thanks to the circulation of information via contemporary communication systems. From the 1990s, the augmentation of bilateral and multilateral trade agreements has also contributed.

Globalisation has notably involved developed countries opening up their markets to producers in developing countries, but it has also made it easier for western firms to outsource their activities to countries with lower salary costs.

As globalisation accelerated at the beginning of the 21<sup>st</sup> century, with China joining the World Trade Organisation, there were several major consequences for western economies, including:

- Strong pressure on manufacturing prices and costs, due to increased competition from producers in developing countries.
- The outsourcing of entire segments of some industries to countries with lower salary costs, especially China.
- Increased dependence on imports from emerging countries, first among them China, India, Mexico and Indonesia.

Between 2000 and 2005, prices in the American real estate market almost doubled, before falling more than 33% during the following three years.

### A speculative bubble

There were several factors that helped to inflate this bubble: In the 1990s, the American government wanted to expand access to home-ownership, even for more modest families (these were called subprime mortgages). After the Internet bubble burst in 2000, the American Federal Reserve kept interest rates low to encourage investment. Thinking they had found a safer opportunity, investors poured into the real estate market.

#### **Opaque securitisation**

Securitisation is the process by which an asset is converted into a tradeable security. The issuer (a bank) unburdens itself of risk by transferring it to outside investors. Securitisation thus creates a moral hazard, since banks no longer bear the ultimate risk related to their mortgages, they no longer feel responsible for them. Banks then lowered their requirements for securing a mortgage, while the securities based on these mortgages continued to receive artificially high ratings from the agencies responsible for assessing non-repayment risk, the famous Rating Agencies.Investors underestimated the risks and after-effects of people defaulting on their subprime mortgage repayments. The complexity of these financial products had made them even more opaque.The gradual rise of interest rates and lower real estate prices after 2006 made households more vulnerable, with most in too much debt to purchase a home. Rising default rates for subprime mortgages then set off a crisis in the real estate market in the Summer of 2007.

### **Economic reforms and post-Mao growth**

When Mao Zedong died in 1976, Deng Xiaoping began to implement economic reforms that would eventually reintegrate China into the global economy. Between 1980 and 2000, China's foreign trade grew at an exceptionally rapid rate, more than 15% per year on average.

## Two decades of economic liberalisation

After fifteen years of negotiations, China became a member of the World Trade Organization (WTO) in 2001. Committing itself to an open market, freeing up the importation of goods and services. This opening led to a flood of foreign direct investment, which played an important role in supporting internal demand, while also eventually leading to increased growth thanks to a more efficient allocation of internal resources. Although China was still on the sidelines of global trade in 1980, it had become the world's third largest trading power by 2005.

## A 21st century dominated by China?

China now has the second highest gross domestic product (GDP) in the world, behind the United States. However, if GDP is measured at purchasing power parity, eliminating the effects of the dollar/yuan exchange rate, China passed the United States in 2019, with a GDP (PPP) of \$23 trillion, compared to the United States' \$20 trillion. With his immense "New Silk Road" project, Xi Jinping is hoping to return China to its historical importance by 2049.

#### **Growth markets**

Emerging economies, also called "frontier markets" have been experiencing record growth, accounting for up to 60% of global growth. The consulting firm McKinsey & Company estimates that by 2025, almost half of all companies valued at \$1 billion or more will be based in an emerging country.

## Instability

Still, the legal systems in emerging countries are generally not as effective as those in developed countries, and periodic political instability can also be a problem. The risks inherent to emerging markets arise from several factors: besides any political instability, there is also the strong dependence on raw materials prices, problems with corruption, a lack (or at least an insufficiency) of structural reforms, as well as the repercussions of trade wars between developed countries.

## After the BRICS, the "Next Eleven" (N-11)

The BRICS countries (Brazil, Russia, India, China, South Africa) are now considered to be economically mature and advanced. They are followed by the "Next Eleven": also written "N-11", a name that comes from a well-known research article published in 2005 by Jim O'Neill, a Goldman Sachs economist, in which he identifies eleven countries that have the potential to become major economic powers in the 21<sup>st</sup> century: Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, The Philippines, Turkey, South Korea and Vietnam.

Terrorist organisations require significant financing to pay for the operational aspects of terrorist acts, as well as to keep running their organisation, to finance their basic technical needs and to cover the expenses of spreading the ideology that drives them. Immediately after the September 11 attacks, AI Qaeda's annual budget stood at €10 million, while ISIS' 2016 budget was estimated to be €2.3 billion.

Terrorism financing comes from surprisingly diverse sources. The funds may be generated by illegal activities, from petty crime to organised crime: drug dealing, gun running or human trafficking. These activities are often highly decentralised, such as AI Qaeda in the Islamic Maghreb (AQIM) taking hostages for ransom in the Sahel. The funds may also come from legitimate sources, donated by members of the organisation (often new arrivals and individual or State donors), or may come from fraudulent nonprofit groups.

The terrorist organisation ISIS has also turned to new financing methods that are more similar to the way the countries operate. For example, they raise their own taxes and exploit natural resources in Iraq and Syria (80% of ISIS financing in 2014, 60% in 2017), including natural gas, oil and phosphates. High Frequency Trading (HFT) involves using complicated computer programs, called algorithms, to automatically execute a large number of buying or selling operations within financial markets at very high speeds. The goal is to increase the number of low-margin buy/sell operations within a short time frame, generating significant profits through the sheer volume of transactions alone. HFT does, however, lead to some controversial strategies that could be considered price manipulation, including:

- Electronic front-running: this strategy involves speeding up large client orders in one exchange buy buying up all of the shares available on other exchanges, before reselling them to the client at a small profit.
- Phantom liquidity: this involves artificially inflating the liquidity generated by a large number of orders, which will then be cancelled before they are executed. Other market actors will be tricked by this so-called "phantom" liquidity, which gives HFT users a competitive advantage because they know how much liquidity is actually available. It works, as long as the competition isn't playing the same game!

#### **Controversies around High Frequency Trading**

Supporters of HFT point out that it increases liquidity and helps to make the market more efficient. Detractors say that the proportion of cancelled orders is exorbitant (more than 95% in US markets). These cancellations create uncertainty around how much liquidity is actually in the market, as we saw during the 6 May 2010 "flash crash". Finally, front-running itself is proof of HFT users' predatory behaviour, since they are gaining from the losses of other traders.