



Principles of Business : course n°6

Formative assessment

The market system in action : Price Elasticity of Demand (PED)

BA 2nd Year - 17/02/2020

Formative assessment : Sources

International statistics are available from various institution such as World Bank, CIA factbook, IMF, OECD, and of course national statistical agency.

You can't quote a website as a source because they are not the one producing the datas.

Clearly precise the currency used and define the concept when appropriated. For example, defining how GDP is presented is useful (because you have GDP PPA, in constant currency, nominal, etc.). Defining population is not useful, we all know what population is.

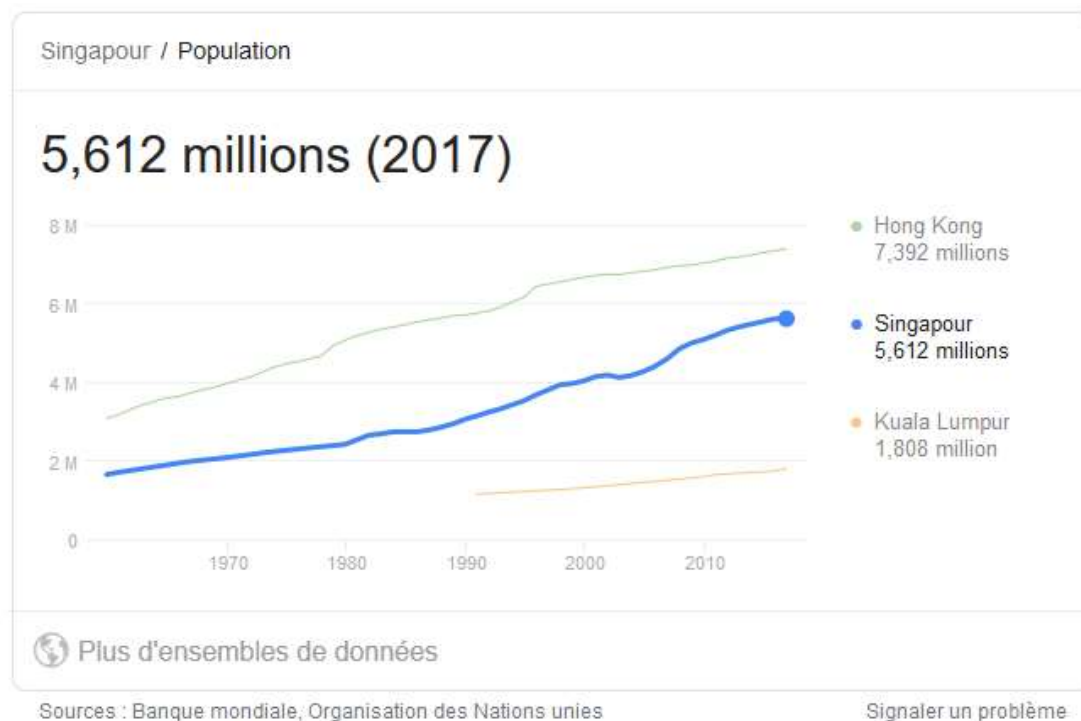
Always quote your sources.

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Example of country analysis :
Singapour

Population dynamic :
growing strongly. More than
world average.
Catching the gap with Hong
Kong.

In Singapour population
growth could be a concern
because the city/state has a
territory of 714 km²



Formative assessment

Example of country analysis :
Singapour

Total GDP ; GNP

GDP / capita here

More than Japan !!

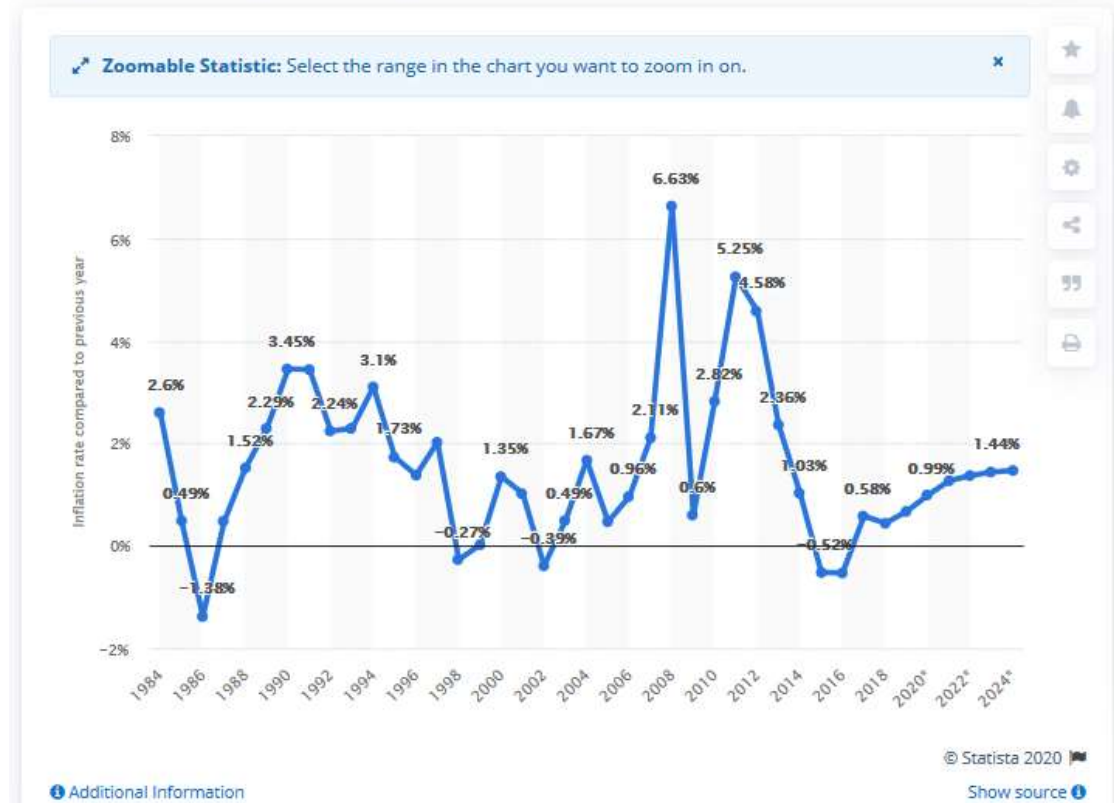


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Example of country analysis :
Singapore

Inflation is very low now after
some pressures around 2010.

Singapore: Inflation rate from 1984 to 2024*
(compared to the previous year)

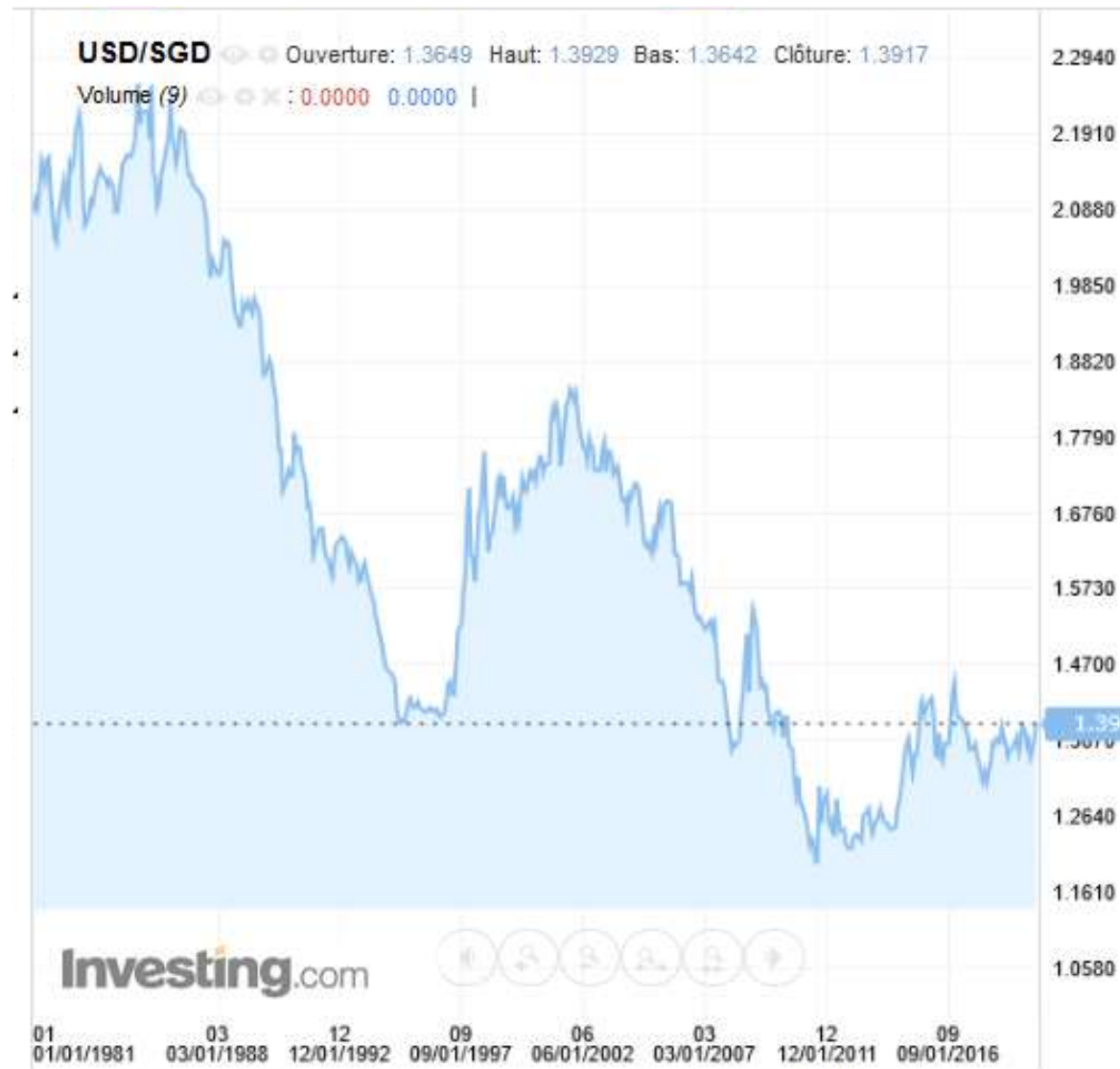


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Example of country analysis :
Singapour

Currency of Singapour is the Singapour Dollar. Strong with a long term appreciation tendency against USD.

The graph shows the price of 1 USD against SGD.



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Example of country analysis : Singapour

For 2018, Singapore's Gini coefficient - which measures income inequality as a ratio from 0 to 1, with 0 representing total income equality - was 0.458.

Among the world's highest (130 / 160)

Price Elasticity of Demand (PED)

What is price elasticity? assumption is that more people will buy the product or service if it's cheaper and less will buy it if it's more expensive. But the phenomenon is more quantifiable than that, and price elasticity shows exactly how responsive customer demand is for a product based on its price.

Some products have a much more immediate and dramatic response to price changes, usually because they're considered nice-to-have or non-essential, or because there are many substitutes available. For example, beef. When the price dramatically increases, demand may go way down because people can easily substitute chicken or pork.

Source : Amy GALLO, « A Refresher on Price Elasticity », Harvard Business Review, August 21, 2015, <https://hbr.org/search?term=amy%20gallohttps://hbr.org/2015/08/a-refresher-on-price-elasticity>

Price Elasticity of Demand (PED) : formula

$$\text{Price elasticity of demand} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

Say that a clothing company raised the price of one of its coats from \$100 to \$120.

The price increase is $\frac{\$120 - \$100}{\$100}$ or 20%.

Now let's say that the increase caused a decrease in the quantity sold from 1,000 coats to 900 coats.

The percentage decrease in demand is -10%.

Plugging those numbers into the formula, you'd get a price elasticity of demand of :

$$\frac{-0.10}{0.20} = -0.5 \text{ or } 0.5$$

Price Elasticity of Demand (PED) : cases

Perfectly elastic

Where any very small change in price results in a very large change in the quantity demanded. Products that fall in this category are mostly “pure commodities,” says Avery. “There’s no brand, no product differentiation, and customers have no meaningful attachment to the product.”

Relatively elastic

Where small changes in price cause large changes in quantity demanded (the result of the formula is greater than 1). Beef, as discussed above, is an example of a product that is relatively elastic.

Unit elastic

Where any change in price is matched by an equal change in quantity (where the number is equal to 1). People need it, so even when prices go up, demand doesn’t change greatly. Also, “products with stronger brands tend to be more inelastic, which makes building brand equity a good investment.”

Price Elasticity of Demand (PED) : cases

Relatively inelastic

Where large changes in price cause small changes in demand (the number is less than 1). Gasoline is a good example here because most people need it, so even when prices go up, demand doesn't change greatly. Also, "products with stronger brands tend to be more inelastic, which makes building brand equity a good investment,".

Perfectly inelastic

Where the quantity demanded does not change when the price changes. Products in this category are things consumers absolutely need and there are no other options from which to obtain them. "We tend to see this only in cases where a firm has a monopoly on the demand. Even if I change my price, you still have to buy from me,".

Price Elasticity of Demand (PED) & Marketing

Marketers should know where their products fall on this spectrum, but the actual number is less important than knowing which zone your product falls within and what will happen to consumer demand if you change your price.

“If my product is highly elastic, it is being perceived as a commodity by consumers.” It tells you how effective you are at marketing your products to consumers.

A marketer's goal is to move his or her products from relatively elastic to relatively inelastic, by creating something that is differentiated and meaningful to customers. When, through branding or other marketing initiatives, a company increases consumers' desire for the product and their willingness to pay regardless of price, it's improving the company's standing compared with competitors. But it can go the other way. It's an important metric to watch because your product may become more elastic if a competitor starts offering compelling substitutes or consumers' incomes go down, making them more sensitive to price.

Price Elasticity of Demand (PED) & Marketing

Keep in mind that price elasticity isn't just a factor of how well you're marketing. It is also affected by the type of product you're selling, the income of your target consumers, the health of the economy, and what your competitors are doing.

You can't look at it in isolation. You have to look at it in context of the industry and its competitive structure and in the context of consumers' lives.

As you may have figured out, this is a number that you can only calculate for certain after you've made an actual price change and seen the resulting impact on demand. And to be truly certain, you'd have to change your price multiple times to see what would happen at each price point. This is not what companies tend to do in practice. Rather, they send out questionnaires, run focus groups, or perform small-scale experiments in certain markets, to give them a sense of what would happen if they changed their price.

Factor affecting Price Elasticity of Demand (PED)

Availability of substitute goods

Breadth of definition of a good

Percentage of income (The higher the percentage of the consumer's income that the product's price represents, the higher the elasticity tends to be)

Necessity (example : medication)

Duration (For most goods, the longer a price change holds, the higher the elasticity is likely to be, as more and more consumers find they have the time and inclination to search for substitutes).

Brand loyalty (and some proprietary barriers)

Who pays

Whether it is addictive or not

Price Elasticity of Demand (PED) : Examples

Cigarettes (US) : -0.3 to -0.6 (General) ; -0.6 to -0.7 (Youth) (Source : Perloff, J. (2008)

Alcoholic beverages (US) : -0.3 or -0.7 to -0.9 as of 1972 (Beer) ; -1.0 (Wine) ; -1.5 (Spirits)
Source : Chaloupka, Frank J.; Grossman, Michael; Saffer, Henry (2002); Hogarty and Elzinga (1972) cited by Douglas (1993).

Airline travel (US) : -0.3 (First Class) ; -0.9 (Discount) ; -1.5 (for Pleasure Travelers) Source : Pindyck; Rubinfeld (2001); Steven Morrison in Duetsch (1993)

Price Elasticity of Demand (PED) : Exeptions

Veblen goods are types of luxury goods for which the quantity demanded increases as the price increases, an apparent contradiction of the law of demand, resulting in an upward-sloping demand curve.

A higher price may make a product desirable as a status symbol in the practices of conspicuous consumption and conspicuous leisure. A product may be a Veblen good because it is a positional good, something few others can own.

Thorstein Bunde Veblen (1857 – 1929), author *The Theory of the Leisure Class* (1899)

