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Hinduism

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Abstract In this paper, I describe various economies in increasing order of superiority. The paper ends with "The End"

Economic fundamentals

An **economy** is any collection of individuals who produce, consume or trade goods and services between one another. An individual in an economy that is neither producing, nor consuming, nor trading goods or services is said be in **leisure** or be **unemployed** in the economy. An individual that will remain unemployed for a finite time foreseeable by individuals in an economy is said to be **structurally unemployed** in the economy.

A **good** is any object of consumption produced by an individual or an economy in general. A **service** is an act of trade between two individuals from one or two economies. A **production** is any series of actions by individual(s) or econom(ies) in general that leads to an increase in the number of goods and/or services. A **consumption** is any series of actions by the individual(s) of an economy that ultimately leads every individual of the economy to leisure. **Trade** is exchange of goods or services by two individuals, or an individual and an economy, or two economies.

There exists a common good called **information** that can be produced, consumed, and traded by every individual in every economy. Information that can be consumed and traded by every individual in every economy at the same time is called **knowledge**. Information that is not knowledge is called **propaganda**. Individuals that produce propaganda are called **propagandists**. Individuals that produce knowledge are called **academics**. An economy generally contains infinite information.

The basic economy

Labor is giving up of leisure by an individual. **Capital** is any good that stores the value of labor of individuals. **Technology** is knowledge that leads individuals to production, consumption, or trade of goods or services. The value of capital required to produce a good or service is called the **cost** of that good or service. The value of capital required to consume a good or service is called the **price** of that good or service.

Economic welfare of an individual in an economy is decided by that individual, and is generally based on various **factors** including but not limited to goods and services available for consumption including knowledge, leisure, capital, information etc.

Since any good or service that is consumed by an individual or economy must first be produced, there exists in every economy, the **economic problem** of deciding the order in which individuals and the economy in general produces, trades and consumes goods and services.

The economic problem is generally known to individuals. Individuals who solve the economic problem in an economy are called **economists**. An economy that has solved the economic problem for all its individuals is a so-called **developed economy**. An economy that has not solved the economic problem for all its individuals is a so-called **developing economy**. Developing economies usually solve the economic problem by producing and **acquiring** labor, capital and technology through trade.

The information economy

Whenever there exists both knowledge and propaganda in an economy, there is said to exist **asymmetric information** in the economy. Generally, individuals and economies supply both knowledge and propaganda to both individuals and economies. Supplying information to an individual is called **informing** the individual.

An economy with knowledge, propaganda and asymmetric information is called an **information economy**. Individuals who consume information and produce knowledge of factors that increase or decrease economic welfare of an individual in an information economy are called **journalists**.

Long-run technology

Inferior technology is any technology that requires more labor than capital. **Superior technology** is technology that is not inferior technology. The **long-run** is the point in time when all individuals in an economy use technology that requires zero capital and zero labor to produce, consume and trade all the goods and services in the economy. **Long-run technology** is technology that an economy uses in the long-run.

The problem of force to economic welfare

Any technology that an individual or an economy uses to cause an individual or an economy to give up leisure is called **force**. Force is inferior technology. Prolonged use of force on an individual is called **torture**. Prolonged use of force on an economy is called **war**.

If an individual makes a choice to give up leisure to produce, consume or trade without any force acting on the individual, the individual is said to have made a **voluntary** choice to be employed in the economy. If an individual makes a choice to be employed in the economy that is not a voluntary choice to be employed, the individual is said to be **enslaved** in the economy.

Informing an enslaved individual in an economy about force that enslaves them is generally found to decrease their welfare. Informing an individual in an economy about force that enslaves another individual is also generally found to decrease their welfare. Thus, the presence of force in an economy is generally welfare-decreasing for individuals in an economy. Enslaved individuals who come to know of force that enslaves them are generally found to express demand of removal of force from the economy.

Individuals that produce force are called **warlords**. Warlords that produce force in an economy forever are called **dictators** of the economy. An economy with a dictator is called a **dictatorship**. A dictatorship is an inferior economy because individuals from economies that are not dictatorships generally never supply knowledge or capital into a dictatorship. An economy stops being a dictatorship whenever the supply of dictators in the economy becomes zero.

A **free economy** is an economy with no force on individuals. A **governed economy** is an economy with warlords but no dictators. An economy that stops being a dictatorship either becomes a free economy, or produces technology called **governance** or **"economic choice"** that lets the economy produce, consume and trade goods and services with another free or governed economy.

Welfare-increasing equilibrium

Whenever it is possible to increase the economic welfare of individual(s) in an economy, the economy is said to be in a **welfare-increasing equilibrium**. It is generally possible to increase economic welfare of individual(s) whenever an economy has force, asymmetric information, or inferior technology.

Economic efficiency

An **efficient** economy is an economy in which the cost and price of every good and every service are equal. Economies generally stop being efficient due to the presence of force, asymmetric information and inferior technology.

Organizations, markets and asymmetric information

Before the long run, individuals in an economy sometimes come together in groups called **organizations** to produce, consume or trade. The main motivation to do this is usually to produce and trade technology, but sometimes also to produce, consume or trade goods and services. An organization that exists for finite time is called a **market**. When a market stops to exist it is said to have undergone **market failure**.

An organization in which all constituent individuals are voluntarily employed is called a **firm**. The individuals in a firm are called its **employees**. An organization that is not a firm is called a **jail**. The individuals in a jail are called its **prisoners**.

An organization that is a jail, but will become a firm within an infinitesimal amount of time is called a **temple** or **mosque** or **church**. The individuals in a temple, mosque or church are called its **deities**. Prisoners and deities are therefore enslaved individuals in an economy, and it is generally possible to increase their welfare by removing force that enslaves them in their organization(s).

An organization may misrepresent itself. Whenever this happens, there exists asymmetric information in the economy.

Absorbing technology

Technology that joins two or more individuals to form a single individual is called **absorbing technology**. When individuals voluntarily use absorbing technology, they are said to be **married** and there is no asymmetric information produced. Otherwise, asymmetric information is produced. An economy with absorbing technology can **absorb** other economies by absorbing its individuals. Absorbing of individuals voluntarily into a new economy generally requires supplying them with **economic incentives**. Examples of economic incentives include goods and services, money, wealth, marriage, and knowledge including technology, force or asymmetric information. Absorbing of individuals that is not voluntary is called **rape**.

The war economy

Economies that do not have any capital are called **war economies**. War economies are primitive economies since they generally have force, asymmetric information and inferior technology. War economies continue to use them to acquire labor, capital and technology until they either get absorbed into superior economies, or mature into capitalist or communist economies.

The capitalist economy

Capital that generally loses value with time is called **money**. Capital that doesn't lose value with time is called **wealth**. An economy in which individuals use money and wealth to produce goods and services, including technology and information is called a **capitalist economy**.

Money that will lose value for a finite period of time foreseeable by individuals in the economy is said to be **inflationary money** in the economy. Inflationary money in an economy generally effects an economy in five ways:

1. Some individuals with inflationary money, called **monetary economists**, choose to either produce more money or trade money for money from other economies.

2. Some individuals with inflationary money, called **consumers**, trade inflationary money for goods and services, including but not limited to technology and consumption goods.

3. Some individuals with inflationary money, called **producers**, produce goods and services for trade with consumers.

4. Academics with inflationary money trade and produce knowledge, including technology or become propagandists and produce propaganda.

5. Some existing consumers become producers, and some existing producers become consumers.

Money that will gain value for a finite period of time foreseeable by individuals in the economy is said to be **deflationary money** in the economy. Deflationary money in an economy generally effects an economy in six ways:

1. Monetary economists choose to either produce more money, or trade asymmetric information with other economists.

2. Consumers eventually stop trading money for goods and services.

3. Producers eventually stop producing goods and services.

4. Academics stop producing knowledge (including technology) and eventually leave the economy.

5. Propagandists begin to produce propaganda in the economy.

6. Warlords eventually begin to produce force in the economy.

Capitalist economies either **mature** into communist economies, or **progress** into financial economies, or **regress** into war economies or dictatorships by enslaving individuals through force, torture and war. If they begin to regress to war economies, they may be absorbed

by superior economies.

Price-differentiation technology

The price of a good/service in a market is called its **market price** in that market. **Price-differentiation technology** is technology that **identifies** individuals in a market that are willing to pay a price that is higher or lower than the market price to acquire a good/service in the market. Individuals and capitalist economies choose to use price-differentiation technology for various economic reasons including but not limited to increasing efficiency, producing new goods and services, **accumulating** wealth, **improving** governance, increasing economic welfare of individuals etc.

Prolonged use of price-differentiating technology for a good/service in a market generally requires providing supply of **alternatives** to that good/service in that market at different prices with **differentiating features** that **justify** the different prices.

The communist economy

A capitalist economy is said to mature into a **communist economy** whenever all money in the economy becomes wealth. A communist economy tries to attract individuals from superior economies by supplying them wealth and economic welfare. Individuals from inferior economies try to enter communist economies to acquire wealth and economic welfare. A communist economy, therefore needs to continuously distribute all existing wealth in the economy forever until every individual in the economy has equal wealth.

This is both monetary policy and economic choice, and it is called **communism**. Individuals in any economy that agree with this monetary policy and economic choice are called **communists**. Individuals in an economy who do not agree with this monetary policy choice are called **aryans** or **dravidians**.

A communist economy is superior to a capitalist economy because it **shares** wealth among individuals, including new individuals from other economies, and **reserves** the choice to become a superior economy.

However, since their individuals still have asymmetric information and unequal economic welfare, communist economies eventually produce force between its individuals. Moreover, war economies produce force, and capitalist economies that are not communist economies produce goods and services and technology that effects economic welfare of individuals in communist economies. A communist economy generally does not exist for long even when it has an abundance of communists, and eventually regresses to war economies or dictatorships because some communists eventually become warlords.

The financial economy

Individuals in a capitalist economy have **time preferences** for maturity of the economy - some prefer that the economy never matures, others prefer that economy matures immediately, and yet others prefer that the economy matures after finite time.

A capitalist economy that doesn't account for the time preferences of its individuals eventually regresses into a war economy or a dictatorship. A capitalist economy that does account for differences in these time preferences of individuals is called a **financial economy**. Financial economies are capitalist economies, but capitalist economies may or may not choose to become financial economies.

A capitalist economy that does not have adequate capital or adequate force may cease to exist due to inflationary and deflationary money, force and asymmetric information, originating in itself or in other economies that it trades goods and services, including financial assets and financial services, with. This is called **economic collapse**. Financial economies are superior to capitalist economies that are not financial economies, because they are **resilient** to economic collapse and account for the time preferences of their individuals.

Financial economies produce goods called **financial assets**, services called **financial services**, and technologies called finance and accounting to co-ordinate production, consumption and trade of goods and services. **Accounting** is technology that ensures that all individuals trade at a **profit**. Individuals trade at a profit whenever the price they receive for voluntarily suppling a good or service is more than the cost they incur for voluntarily producing the good or service. **Finance** is technology that ensures that individuals that voluntarily supply capital, called **financiers**, and individuals that voluntarily demand capital can voluntarily trade capital, financial assets and financial services.

Since the cost of financial assets and services produced in a financial economy is generally measured in money also created in that same economy, there exist two general economic phenomenon called inflation and deflation. **Inflation** is a general increase in the costs and prices of goods and services in the economy. **Deflation** is a general decrease in the costs and prices of goods and services in the economy. Since financial assets and financial services can be traded between economies, economies end up trading inflation and deflation whenever they choose to trade financial assets and financial services with other economies. A capitalist economy may join groups of capitalist or financial economies called **trade unions** to increase or decrease trade of goods and services, including financial assets and financial services, with the aim of preventing deflation and inflation in the economy.

The possibility of economic collapse of a capitalist economy is called the **risk** in the economy. A financial economy continuously distributes risk among its individuals to prevent the economy from heading towards economic collapse. Financial economies distribute risk through another technology called **banking**, which works by informing individuals to hold either financial assets or **bank accounts**, and supplies **financial services**. Trade of risk and money is called **insurance**.

Failure of a capitalist economy

A capitalist economy **fails** whenever inflationary money becomes worthless money. **Worthless money** is money that individuals know will continuously lose value forever. Before a capitalist economy fails, it usually undergoes deflation followed by inflation. Capitalist economies that fail either regress to war economies or dictatorships, or get absorbed by other capitalist or communist economies.

Preventing failure of a capitalist economy

A capitalist economy can be prevented from failing, first by delaying it from going into deflation at the right time by providing economic stimulus, by either producing money or supplying wealth to some individuals, and then consuming money later at the right time.

Individuals who determine the right time to provide stimulus and withdraw money in an economy are called **statisticians**. Statisticians generally determine this by first collecting the information about money in the economy, and then **filtering** it to produce knowledge of two key monetary aggregates called the **amount of money supply** in the economy, and the **price of money** in the economy. Statisticians, economists, and governance (if it exists) in the economy must ensure that a statistician always trades this knowledge with a monetary economist at a profit. Otherwise, the capitalist or financial economy will eventually fail.

Monetary economists use the knowledge provided by statisticians to determine two key monetary policy choices, called the **bank interest rate**, which is additional money that a bank account receives with time, and the **target amount of money supply**, which is based on the knowledge the monetary economist has of time preferences of individuals, and force in the economy.

A monetary economist can acquire information of time preferences of individuals, and force in a capitalist economy either by using force on individuals, or by removing asymmetric information from the economy by trading knowledge with economists. The first method eventually causes economic collapse in a capitalist or financial economy, because individuals in a capitalist or financial economy generally produce information about time preferences and force.

The advanced economy

Of all the economies that ever exist, the economy that reaches the long-run before any other economy reaches the long-run is called the **technological economy**. Whenever the technological economy can produce all the goods and services available in every other economy that ever exists, it becomes the **advanced economy**. Individuals of the advanced economy generally do not consume inferior goods or inferior services, but may or may not produce or trade them with other economies.

Note that the advanced economy doesn't necessarily have to first be a financial economy or a communist economy or even a capitalist economy. Also note that even if the advanced economy produces or acquires long-run absorbing technology, it may or may not choose to absorb all individuals from every other economy, and even if it does so, it may not choose to supply all three of the following: economic welfare, knowledge and leisure.

The advanced economy attracts individuals from other economies even before reaching the long-run because of three main economic reasons:

1. The advanced economy can provide leisure and knowledge to an infinite number of individuals forever even before it becomes the advanced economy, since it possesses long-run technology before every other economy.

2. A technological economy that can be the advanced economy still needs to acquire long-run technology from every other economy to become the advanced economy.

3. An economy that cannot be the technological economy can still acquire long-run technology through trade with an economy that can become the technological economy or the advanced economy.

An economy that can become the technological economy, supplies both knowledge and propaganda to other economies to signal that it can become the technological economy. An economy that cannot become the technological economy supplies only propaganda since it has no economic incentive to supply knowledge without acquiring knowledge.

The technological economy has no economic incentive to supply propaganda - instead the technological economy simply attracts and absorbs economists who possess asymmetric information, and individuals with knowledge of long-run technology, called **engineers** or **technologists**, and from every other economy. The advanced economy has no economic incentive to supply neither knowledge nor propaganda to individuals in other economies, since it already possesses long-run technology from every other economy.

Since the welfare of an individual depends entirely on the information that the individual has about various welfare-increasing and welfare-decreasing factors, increasing economic welfare of individuals is eventually not possible in the presence of asymmetric information between individuals or force on individuals of an economy. Asymmetric information as well as force generally exist in an economy because of inferior technology in the economy.

Economists who recognize the welfare-increasing benefits of reducing asymmetric information in an economy are called **welfare economists**. Economists who recognize the welfare-increasing benefits of reducing force in an economy are called **warfare economists**. Welfare economists and warfare economists choose to consume asymmetric information and force between themselves and in economies before the long-run, since technology that continuously increases both asymmetric information and force between individuals, and eventually reduces welfare of individuals in an economy may be produced by other economies.

Extractive technology

Technology that moves individuals or capital out of one economy into another economy is called **extractive technology**. Extractive technology is superior technology because academics sometimes voluntarily leave economies to produce, trade and consume knowledge in other economies. An economy that doesn't allow its academics to leave is called a **closed economy**. Closed economies eventually produce force and regress to war economies or dictatorships because academics from other economies do not choose to enter such economies with knowledge and capital that doesn't exist in the economy.

Co-operative extractive technology is extractive technology that is not force. Extractive technology that is not co-operative extractive technology is called **non-co-operative extractive technology**. Non-co-operative extractive technology is inferior technology since it is force.

Co-operative extractive technology is usually produced by two separate individuals or an individual and an economy, or two separate economies. There are two broad classes of co-operative extractive technologies - **co-operative capital extractive technology** and **co-operative labor extractive technology**.

An example of co-operative capital extractive technology is **co-operative capital rescue**, where excessively inflationary money or excessively deflationary money or excessive wealth in one economy is extracted out to another economy until such perception subsides. Such perception may be correct or erroneous, caused by either market failure or by the presence of asymmetric information among individuals. Co-operative capital rescue is generally performed by trading various financial assets and financial services, by both profit-maximizing firms called **banks**, and welfare-increasing individuals called **bankers**, so as to protect both economies from the need for an increasing number of capital rescues in the future.

An example of co-operative labor extractive technology is **co-operative labor rescue**, where a structurally unemployed individual in one economy is co-operatively extracted out to another economy to either increase aggregate consumption through individual consumption, or to be employed in firms for **monetary wages** and **capital gains**, until such perception subsides. Again, such perception may be correct or erroneous, caused by either market failure or by the presence of asymmetric information among individuals. Co-operative labor rescue is generally performed using rescue programs, led by both profit-maximizing firms called **schools**, and welfare-increasing individuals called **rescuers**.

Use of non-co-operative capital extractive technology is called **theft**. Use of non-co-operative labor extractive technology is called **kidnapping**.

Police and society

Theft, kidnapping, and rape are generally welfare-decreasing for individuals. Individuals and firms that reduce and prevent theft, kidnapping and rape are collectively called **police**. An economy with both police and governance is called a **society**. Note that police and society are possible in any economy, including even the basic economy. Police and governance may work together in a society. Also note that individuals in a society are not guaranteed economic welfare with just police and governance, since economic welfare generally depends on various other factors.

The ethical economy

Since it may not be clear at the beginning of time to all the individuals in an economy whether the supply of capital and labor in every economy including itself is indeed finite or not, an economy that supplies infinite co-operative capital rescue and infinite co-operative labor rescue to individuals forever since the beginning of time is called an **ethical economy**. An economy that is not an ethical economy is called an **unethical economy**. An ethical economy that chooses to provide co-operative capital rescue and co-operative labor rescue to another economy forever is said to **forgive** the other economy. An ethical economy has no economic incentive to forgive an unethical economy. Ethical economies that have discovered each other generally have welfare-increasing economic incentives to forgive each other.

Individuals who have committed to supplying, or supply or are profitably employed to supply co-operative labor rescue or co-operative capital rescue or marriage are called **politicians**. Individuals that supply theft or kidnapping or rape are called **spurious politicians**. They both sometimes but not necessarily always train themselves in other professions to acquire capital that enable them to perform capital rescue, labor rescue and absorbing. Firms that profitably employ politicians are called **political firms**. Firms that profitably employ spurious politicians are called **unethical firms**.

Spurious politicians and unethical firms generally reduce economic welfare in an economy. Asymmetric information generally exists between spurious politicians and unethical firms, politicians and spurious politicians, politicians and ethical firms and spurious politicians, unethical firms, and political firms and unethical firms.

Mutually forgiving economies form groups called **political coalitions** for the economic welfare of all individuals involved in both economies. A political coalition is a group of economies, politicians and political firms.

If at every point in time, there exists at least one politician or political firm that supplies infinite co-operative labor rescue and at least one politician or political firm that supplies infinite co-operative capital rescue in an ethical economy, a welfare-increasing equilibrium is reached in that economy.

Some ways an unethical economy can decrease economic welfare in an ethical economy are by conducting thefts, conducting kidnappings, conducting rapes, injecting spurious politicians, and introducing non-co-operative extractive technology by disguising it as co-operative extractive technology. Ethical economies counter such attacks by protecting individuals, protecting politicians, discovering and treating spurious politicians using ethics programs, and discovering non-co-operative extractive technology for removal. Politicians and spurious politicians protect themselves from attacks by forming political coalitions and holding **democratic elections** to determine governance.

The ethical problem for economies

The economic choice to become an ethical economy is called the **ethical problem** for an economy. Economies solve the ethical problem by increasing welfare of enslaved individuals, including prisoners and deities, by removing force that enslaves them, until no more force remain in the economy.

Individuals from other economies are attracted to an ethical economy because of four main economic reasons:

1. The economic welfare of bankers and rescuers generally increases in an ethical economy.

2. The economic welfare of individuals, including prisoners and deities, generally increases in an ethical economy.

3. Individuals that voluntarily choose to become politicians or start political firms need to undergo ethics programs.

4. Individuals that voluntarily choose to stop being spurious politicians or stop unethical firms need to undergo ethics programs.

The individual choice to become a politician or spurious politician is called the **ethics problem** for an individual. Individuals solve the ethics problem whenever they voluntarily choose to become either a politician or a spurious politician.

Ethics programs and politicians

An **ethics program** is a service between two individuals from one or two economies. **Positive ethics programs** remove asymmetric information between two politicians or two spurious politicians, or a politician and a spurious politician. **Normative ethics programs** do not remove asymmetric information from a politician. Normative ethics programs are inferior services since they do not remove the asymmetric information that may lead to a new welfare-increasing equilibrium for both economies.

There are two basic types of ethics programs - co-operative and non-co-operative. Whenever a politician or spurious politician chooses to voluntarily undergo an ethics program, it is a case of a **co-operative ethics program**. Examples of co-operative ethics programs are an ethics lecture or course, voluntary service, and voluntary interview. An ethics program that is not a co-operative ethics program is a **non-co-operative ethics program**. Non-co-operative ethics programs are inferior services since they do not remove asymmetric information, likely use force, and are likely to lead to further non-cooperative ethics programs. Examples of non-co-operative ethics programs are involuntary jail time and involuntary torture. Non-cooperative ethics programs are generally harmful for the economic welfare of individuals, and when used on politicians because they may cease to be politicians.

Politicians and spurious politicians sometimes voluntarily undergo ethics programs in a new economy to transform themselves into politicians for the new economy and to reduce asymmetric information between individuals from one or both economies. Note that sharing of complete information of politicians and spurious politicians in an economy is not a criteria for being an ethical economy. If a pair of ethical economies manages to share politicians and/or political firms at all points in time, a welfare-increasing equilibrium may be reached for both ethical economies. The supply of politicians and/or political firms in an ethical economy is never zero until the economy achieves so-called **normalcy** which is when no force, no asymmetric information and no more welfare-increasing equilibria exist.

The ethical welfare-increasing equilibrium

After all economies that ever exist have discovered each other, another welfare-increasing equilibrium for every economy exists that can be reached by a simple process of every politician and spurious politician voluntarily undergoing co-operative ethics programs in every economy including their own economy. Political firms and unethical firms still remain in the economy because the economy may encounter a war economy, or a superior economy.

The advanced ethical economy

The **advanced ethical economy** is the economy that is both the advanced economy and has solved the ethical problem. The advanced ethical economy is unique because although many economies may be ethical economies, the advanced economy is unique.

The avatar economy

The advanced ethical economy in which every individual can voluntarily and instantaneously split into new individuals and individuals can voluntarily join into a single individual is called the **avatar economy**. To become the avatar economy, the advanced ethical economy needs to produce, or acquire through trade, absorbing technology and extractive technology. The avatar economy is superior to every economy that has only labor and capital, because its individuals, called **avatars**, can produce, consume and trade asymmetric information and technologies including force, absorbing technology and extractive technology, in addition to producing, consuming, and trading goods and services, and capital and labor.

Swarg and narak

A free economy that exists forever is called the **heaven economy** or **swarg**. A free economy generally stops being a free economy due to force originating in itself and from other economies, and is then called a **narak**.

A governed economy removes force using individuals called **investigators** and **soldiers**. Investigators **discover** force, generally by trading information with individuals. Soldiers remove force from the economy. Note that soldiers may be profitably employed by warlords or by governance.

An economy that is not the heaven economy becomes the heaven economy by becoming the avatar economy, and removing all asymmetric information and force.

Individuals of the heaven economy are called **hindus**. Hindus may either be brahmins or kayastas. A **brahmin** is an individual that was never a warlord. A **kayasta** is an individual that has been a warlord. A kayasta becomes a hindu by first becoming a financier or banker or rescuer, or holding a bank account or financial assets, or providing financial services. A brahmin becomes a hindu by becoming a politician or spurious politician. Individuals in any avatar economy that are neither brahmins nor kayastas are either **traders** or are enslaved.

Traders trade goods and services, including financial assets and financial services until they either produce or acquire force and become warlords, or become politicians or spurious politicians. Individuals that are enslaved stop being enslaved whenever force that enslaves them is removed, and eventually become either brahmins or kayastas or traders.

Holy marriage in the heaven economy

A brahmin and a kayasta remove asymmetric information and force between them through marriage, called **holy marriage**, into either a brahmin or a kayasta. A married brahmin is called a **krishna**. A married kayasta is called a **kalki**.

Nirvana

When the last krishna and the last kalki in the heaven economy are married, the heaven economy achieves **nirvana** as all asymmetric information and force have been removed. The heaven economy that has achieved nirvana is called **bharat** or **hindustan** or **india**.

Gyaan

Knowledge that leads individuals to this paper is called **gyaan**. Knowledge that leads individuals to the sequel of this paper, titled "Hinduism continues" is also called gyaan. There is no need for any more papers on hinduism after "Hinduism continues" since all hindus are its authors.

The End

Hinduism continues

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Abstract In this paper, I continue to describe various economies mostly, but not always, in increasing order of superiority. The paper ends with "The End"

The beginning

The reader may refer to the previous paper titled "Hinduism" for an introduction to the terms used in this paper. This gyaan, especially about knowledge, propaganda, asymmetric information, force, economic welfare, firms, jails, temples, markets, schools and banks is **necessary** for a complete **understanding** of hinduism.

Birth, death, test and examination

A positive ethics program of a free economy is called a **test**. A normative ethics program of a free economy is called an **examination**. A free economy **conducts** a test or an examination before absorbing a politician or a spurious politician.

A positive ethics program of the avatar economy is called a **life**. A normative ethics program of the avatar economy is called a **death**. The avatar economy **grants** a life or **performs** a death before absorbing a politician or a spurious politician.

Knowledge of granting a life is called a **birth**. Knowledge of performing/causing a death is called an **obituary**.

An ethics program that is a test, but produces a birth is called a **test of life**. An ethics program that is a test, but performs a death is also called a **test of life**.

University

An organization whose individuals produce knowledge, including technology is called a **university**.

Economic actors, directors, fools, demons and the devil

If an individual is a propagandist, and is known to be a propagandist by every individual in an economy, that individual is called an **economic actor**. An economic actor is said to be **acting** whenever propaganda is produced by that economic actor. An individual who uses force on an economic actor to make the economic actor act is called a **director**.

Economic actors and directors are not needed, and do not exist in the advanced economy, and may be **expelled** from an economy that becomes the advanced economy, instantaneously, right before that economy becomes the advanced economy.

A director who continues to use force on economic actor(s) to make economic actor(s) act after having read the previous paper, and/or read so far in the current paper is called a **fool**. An economic actor who continues to act after having read the previous paper, and/or read so far in the current paper is called a **tool**.

A director who is a director due to force from another director is called a **demon** or a **lawyer**. A director who is not a demon/lawyer is called the **devil**. Propaganda produced by economic actors/directors/fools/lawyers/demons/devil are called **Acts** and are a signal to superior economies for absorption.

Economic actors and directors in the advanced economy either get absorbed, or stop being economic actors and directors, or are expelled before the advanced economy becomes the advanced economy.

Military

An organization whose individual(s) perform or cause death is called a **military**.

Yakshas, yakshinis and the others

A politician from a free economy is called a **yaksha**. A yaksha that does not have knowledge of a swarg is called a **naive yaksha**. A yakshas that has knowledge of a swarg is called a **cunning yaksha**. Naive yakshas prefers to remain in their free economy until they acquire knowledge of superior economies. Cunning yakshas prefer to enter a swarg by undergoing a test or an examination in the swarg. Cunning yakshas may also prefer to enter the avatar economy through life and/or death in the avatar economy.

A politician from a swarg is called a **yakshini**. A yakshini that does not have knowledge that the economy is a swarg is called a **powerless yakshini**. A yakshini that has knowledge that the economy is a swarg is called a **powerful yakshini**. A yakshini that becomes a powerful yakshini either continues to remain a politician forever, and is then called a **benevolent yakshini**, or stops being a politician, and is called a **deva** or **farishta** or **angel**.

A politician from a narak is called a **Bhagwan** or **Allah** or **God**. A spurious politician from a narak is called a **raakshasha** or **dajjal** or **the devil**.

Islamic economy

The avatar economy without any spurious politicians, and which continues to never have any spurious politicians forever is called the **islamic economy**. The islamic economy is superior to the avatar economy, because immediate decrease to economic welfare of individual(s) from theft, kidnapping and rape is minimized in the islamic economy. The islamic economy achieves this by **publishing** knowledge of theft, kidnapping and rape to its individuals through journalists using goods called newspapers or magazines or pamphlets or journals. Individuals of an islamic economy are called **muslims**.

Psychological economy

Knowledge of the advanced economy is called **envy**. An economy that is not the technological economy, but has some long-run technology, and has not yet reached the long-run, but has envy is called a **psychological economy**. Economists of a psychological economy are called **psychologists**.

A psychological economy may get absorbed by a superior economy, including, but not limited to, the advanced economy. Individuals and psychologists have **value judgements** for their economy - some, called **futurists**, prefer that absorption happens immediately, others, called **rationalists**, prefer that absorption happens after some finite time, yet others, called **developmental economists** prefer that absorption never happens.

A psychologist that produces knowledge is called a **visionary**. A psychologist that produces propaganda is called a **psychopath**. A psychologist that is also a spurious politician is called a **brahm-raakshasha** or **dahaaka**.

The psychological problem of a psychological economy

Whenever there exists both a developmental economist and a futurist/rationalist in a psychological economy, there exists a **psychological problem** in the economy. The psychological problem exists due to differences in value judgements, which ultimately is due to asymmetric information present among those individuals, in the economy in general, and among economies.

A benevolent yakshini cannot solve the psychological problem of a psychological economy by co-operatively absorbing the economy into the swarg. A brahm-raakshasha or a psychopath cannot solve the psychological problem of a psychological economy by absorbing the economy, and getting absorbed into the swarg or advanced economy later.

The advanced economy or a superior economy cannot solve the psychological problem of a psychological economy by co-operatively absorbing the psychological economy into the economy.

Structural break

Whenever a psychological economy gets absorbed by a superior economy, it undergoes an economic phenomenon called a **structural break** that is characterized by two separate but simultaneous phenomena:

1. Individuals that were absorbed are supplied new information by the absorbing economy.

2. Individuals that were not absorbed are supplied knowledge by individuals that were absorbed.

Superiority of the psychological economy

The psychological economy is superior to the islamic economy, because it **understands** value judgements, and has individuals called developmental economists, sometimes also called **consultants**, and politicians that take the economy to the long-run without absorbing, and without getting absorbed before any of their individuals read till here.

Ghosh economy

Futurists and rationalists from economies that never get absorbed are called **ghosts**. Development economists, consultants and politicians from economies that never reach the long-run are called **idiots**. The psychological economy that is willing to forever absorb ghosts, idiots, fools and tools, through a co-operative ethics program, is called the **Ghosh economy**. The Ghosh economy is superior to the psychological economy because it **tries** to supply **justice** to **forsaken** and/or **conned** individuals, and possesses asymmetric information.

Solving the problem of unmatched futurist(s)

Soumadeep Ghosh is willing to voluntarily absorb unmatched futurist(s) of every economy.

Families

An economy with at least one individual that has married is called a family. Individuals of a family are called its **members**. An economy with families is called a **familial economy**.

Destructive technology, fear and terror

Technology that causes an economy, including famil(ies), to stop existing, i.e., undergo economic collapse, is called **destructive technology**. An economy that uses destructive technology on another economy is said to **attack** the other economy. An economy that attacks itself is called a **fascist** economy. An economy that does not attack itself is said to have **trust**. An economy with trust is far superior to a fascist economy.

The possibility of an attack on an economy is called the **fear** in the economy. If an economy, including a psychological economy, is a financial economy, it can **dissipate** fear through insurance.

The possibility of an attack on an economy by the advanced economy is called the **terror** in the economy. An economy that does not have terror is said to have **hope**. An economy that is never attacked by the advanced economy is said to be a **paradise**. If the advanced economy is not a fascist economy, it is said to be a **haven**.

Terror may **prevent** the advanced economy from ever existing. An economy that can be the advanced economy **counters** terror by producing technology called **diplomacy**, which works by supplying a co-operative ethics program to any individual that enters the economy. The individual of the advanced economy that produces terror is called **shiva**.

Christian economy

A psychological economy that supplies only co-operative ethics programs and no non-co-operative ethics programs to every individual that enters the economy is called a **christian economy**. An individual of a christian economy is called a **christ** or **mary**. A christian economy is superior to the Ghosh economy because it supplies a co-operative ethics program to Soumadeep Ghosh. Individuals of a christian economy are called **christians**. A christian that supplies a co-operative ethics program to another individual that enters the economy is called an **apostle**.

Russian economy

A psychological economy that has muslims, christians and hindus is called a **russian economy**. A russian economy is superior to a christian economy because it has the

potential to **transform** into a swarg, to **converge** to the islamic economy and to **remain** a christian economy.

Buddhist economy

An individual from any economy that has read this paper so far is called a **bodhisattva**. A married bodhisattva is called a **buddha**. A psychological economy with a buddha is called a **buddhist economy**. A buddhist economy is superior to a christian economy because it has buddha.

Mahabharat economy

The avatar economy in which buddha, a christ and a mary use absorbing technology is called the **mahabharat economy**. The mahabharat economy becomes superior to the buddhist economy by first becoming a christian economy, and remaining so forever.

Pride, greed and consideration

Since individuals have **value judgements**, they may or may not prefer to be absorbed by the buddhist economy or the mahabharat economy. The value judgement to not enter the buddhist economy is called **pride**. The value judgement to not enter the mahabharat economy is called **greed**. Individuals who have at least one of pride or greed are called **considerate** individuals, and trade of their knowledge is called **consideration**.

Atrocity and violence

Use of force on an individual that does not increase the economic welfare of that individual is called an **atrocity**. Atrocity that decreases economic welfare of an individual is called **violence**.

Germane economy and jewish economy

A psychological economy with individuals with pride is called a **germane economy**. Individuals of a germane economy are called **germans**. A psychological economy with individuals with greed is called a **jewish economy**. Individuals of a jewish economy are called **jews**. Thus, both a germane economy and a jewish economy have considerate individuals who may **consider** with one another.

An economy with a large number of individuals with pride generally eventually produces force. An economy with a large number of individuals with greed generally eventually produces worthless money.

A germane economy eventually **turns** fascist because some individuals with pride in the economy, called a **minority with power** produce excessive force that causes a large number of individuals in the same economy, called a **majority at loss** to give up leisure.

A jewish economy eventually **turns** fascist because some individuals with greed in the economy, also called a **minority with power** produce excessive money that causes money to become worthless money.

A jewish economy generally **recedes** to a germane economy because individuals eventually **develop** pride. Moreover, a germane economy attracts and may absorb individuals from a jewish economy. A jewish economy may also do the same, but some individuals in a germane economy **deny** to develop greed. Moreover, some individuals from both a germane and a jewish economy change their value judgements, both with **prior** knowledge and **new** knowledge, and **give up** greed and/or pride.

A germane economy and a jewish economy cannot exist without each other, nor can both exist together for very long, but together they are **considered** a superior economy than the mahabharat economy.

A germane economy and a jewish economy together produce two technologies called **planning** and **management**. Planning works by producing **estimates** of production and consumption of each individual in the economy, called **plans**. Management works by **training** economic actors and directors. Both planning and management are inferior technology. Moreover, planning and management are both generally welfare-decreasing for individuals over a prolonged period of time.

A germane economy and a jewish economy that have **considered** welfare-increasing benefits of together producing planning and management are called a **reich**. A reich generally lasts for a finite period of time as individuals in both economies eventually **consider** the welfare-decreasing effects of planning and management.

A jewish economy that exists forever without turning fascist forever is called **israel**. A germane economy that exists forever without turning fascist forever is called **reichsland**.

Egyptian and roman economy

A psychological economy that has never produced accounting is called an **egyptian economy**. Individuals of an egyptian economy are called **egyptians**. A psychological economy that has produced accounting is called a **roman** economy. Individuals of a roman economy are called **romans**.

An egyptian economy and a roman economy possess asymmetric information between them, and together they are **considered** a superior economy than a germane and a jewish

economy. A roman economy is superior to an egyptian economy because it has accounting. Note, however, that an egyptian economy and a roman economy cannot both reach the long-run, until they together produce a technology that removes the asymmetric information present between them produced through accounting. This technology is called **actually**.

Product, factory and machine

Any collection of identical goods is called a **product**.

Any technology that produces a product, but cannot produce this product forever is called a **factory**. An economy with factor(ies) is called a **productive** economy.

Any technology that produces a product, and can produce this product forever is called a **machine**. An economy with machine(s) is called an **industrial** economy.

An industrial economy is superior to a productive economy, because unlike a machine, a factory eventually suffers **breakdown**.

Italian economy

The psychological economy that has produced both accounting and machine(s) before any other psychological economy is called the **italian economy**. Note that even though many economies may produce accounting and/or machine(s), the italian economy is unique. The italian economy is superior to both an egyptian economy and a roman economy. The italian economy has a **psychological optionality** that is not possessed by any other psychological economy - the italian economy may choose to turn fascist forever or not turn fascist forever. This psychological optionality is why some individuals, called **fascists**, **consider** the italian economy superior to a germane economy and a jewish economy.

Sicilian economy

If the italian economy chooses to turn fascist forever, it is called the **sicilian economy**. The individuals of the sicilian economy are called **mafioso**. The superiority of the sicilian economy is not clear, as a fascist economy is generally welfare-decreasing for its individuals.

Confutious economy

A psychological economy that always produces knowledge and propaganda together is called a **confutious economy**. Individuals of a confutious economy are called **confutians**. A confutious economy eventually causes a wide variety of psychological problems in its individuals, including but not limited to the following:

1. A confutious economy causes **confusion** among its individuals as asymmetric information always exists in a confutious economy.

2. A confutious economy causes **gluttony** among some of its individuals, called **gluttons**, who choose to always consume and never produce.

3. A confutious economy causes **sloth** among some of its individuals, called **sloths**, who choose to never produce.

A confutious economy cannot reach the long-run without removing all asymmetric information present between its individuals, and does so by producing a technology called **politburo** or **body politik** or **incorporation**, which works by removing asymmetric information between one individual and all other individuals, by supplying leisure and capital to that individual forever, and continuing to do so until all asymmetric information is removed. Use of politburo generally results in a large number of goods and services to be produced in a confutious economy. Note that politburo is still inferior technology and may **actually** be welfare-decreasing over a prolonged period of time. Members of the politburo are called **elites**. The first elite in a confutious economy is called its **leader**.

The presence of elites in a confutious economy causes at least four more psychological problems:

1. A confutious economy with elites causes **wrath** among some of its individuals who prefer that elites do not exist in the economy.

2. A confutious economy with elites causes **lust** among its individuals that are not elites, which is characterized by excessive trading of goods/services, called **speculation**, by that individual to become an elite.

3. A confutious economy with elites causes **gambling** among its elites, which is characterized by excessive trading of goods/services by an elite with other elite(s), but which does not lead to a welfare-increasing equilibrium.

A confutious economy is **considered** superior to **almost** every psychological economy as it may prevent them from reaching the long-run, except the buddhist economy and the mahabharat economy.

The superiority of a confutious economy to another confutious economy is called the **philosopher's problem**. The confutious economy that is formed by absorbing of every individual from every other confutious economy is called **china**. The philosopher's problem is **considered solved** by china.

American economy and javanese economy

A confutious economy that chooses to stop producing propaganda forever is called a **javanese** economy. The individuals of a javanese economy are called **javan**.

A confutious economy that chooses to never stop producing propaganda is called an **american** economy. The individuals of an american economy are called **americans**.

A javanese economy is **considered** superior to every confutious economy and every american economy. The superiority of an american economy is **never clear** as it may always split into several economies, or absorb other confutious economies, or be absorbed by a superior economy, including china or a javanese economy.

Demonic economy

A psychological economy with an increasing number of demons, that increases faster than the number of individuals that are not demons is called a **demonic economy**. Individuals in a demonic economy eventually leave the economy to enter other economies, and are called **refugees**.

A demonic economy may suffer from a unique psychological problem called **mirage** caused by increasing force and increasing asymmetric information due to an increasing number of demons and a decreasing number of individuals that are not demons.

A demonic economy in mirage eventually turns fascist and **descends** into **civil war**, characterized by the demons of the economy causing war on that economy. An economy in civil war generally eventually produces worthless money, fails and undergoes economic collapse.

The superiority of a demonic economy is not clear as a demonic economy is welfare-decreasing for its individuals. Note that every confutious economy and american economy **runs the risk** of becoming a demonic economy.

Masonic economy

A psychological economy that **tries** to **convert** an economy that is not a demonic economy into a demonic economy, but also **tries** to not become a demonic economy itself is called a **masonic economy**.

The superiority of a masonic economy is not clear as a masonic economy generally **hides** knowledge, **fools** individuals, and may decrease economic welfare in economies, including itself and other economies.

English economy

A psychological economy that splits from an american economy, but chooses to stop producing propaganda forever is called an **english economy**. The individuals of an english economy are called **english**.

The first individual in an english economy that stops producing propaganda forever is called its **king**. The second individual in an english economy that stops producing propaganda forever is called its **queen**. Every other individual in an english economy is **subject** to a technology called **monitoring** until they stop producing propaganda forever.

An english economy may also produce an alternative to marriage called **wedding and divorce**, that is not **actual** marriage. Individuals of an english economy that were perviously elites in a confutious economy call themselves **ministers** or **doctors**. Psychologists that are also doctors are called **psychiatrists**.

Note that an english economy does not prevent any other psychological economy from reaching the long-run in the same way as a confutious economy does, as the amount of propaganda in it is finite. The english economy instead **requires** to be compensated with money from every individual at least once. This compensation is called **tax**.

An english economy uses tax from individuals to produce another technology called **optionality** that lets it acquire knowledge and **decide** to **accept** or **deny** an individual from a different economy from entering the english economy. Optionality may eventually cause every individual to know the superiority of an english economy to every confutious economy. The english economy also produces a technology called **English** which enables publishing of several papers.

Since an english economy has been a confutious economy, there exists asymmetric information between an english economy and every confutious economy, called **private information** or **secrets**. If an english economy never supplies this information to any other economy, it is said to be **secretive**. An english economy chooses to **keep** secrets until supplying them to individual(s) or another economy **ensures** a new welfare-increasing equilibrium is reached in that english economy.

An english economy in which monitoring stops for all individuals within a finite amount of time is called a **kingdom**. An english economy in which monitoring on an individual never stops is called a **socialist utopia** by individuals who produce monitoring. Socialist utopias generally do not last long, since producers of monitoring eventually acquire **considerable** asymmetric information, and generally fail by producing worthless money.

An english economy with no secrets is called a **stable kingdom**. Stable kingdoms that have discovered one another generally have welfare-increasing benefits to absorb one another, and select the king and the queen for the new kingdom through either **duel** or **debate**. Both duel and debate stop when one of the participants has a **reason** to yield.

A stable kingdom that has selected the king and/or the queen through duel is called a **survivalist kingdom**. A stable kingdom that has selected the king and the queen through debate is called an **intellectual kingdom**. An intellectual kingdom is far superior to a survivalist kingdom because it has **reason**.

An english economy with secrets is called an **autocracy**. An autocracy **lasts** by finding new welfare-increasing equilibria or **describing** secrets or **waging** war.

An english economy with only a king but no queen, or only a queen but no king is called a **monarchy**. A monarchy generally doesn't last very long due to overwhelming force and asymmetric information produced by individuals.

An english economy is **considered** superior to an american economy, but its superiority to confutious economies in general is not clear.

European economy

A psychological economy that has germans, jews, egyptians and romans, but no english is called a **european economy**. Individuals of a european economy are called **europeons**.

A european economy is **considered** superior to both confutious economies and an english economy, as there exists asymmetric information in an european economy that may lead to a welfare-increasing equilibrium for its individuals, and because it can choose to become a javanese economy or an english economy. However, the superiority of a european economy to an american economy is not clear, as the superiority of an american economy itself is never clear.

Parisian economy

Capital that is unique, and which can never be produced again is called an **object of art**. An organization in which individuals have object(s) of art is called a **museum**.

A psychological economy that splits from the italian economy, has museum(s)/object(s) of art, and stops waging war forever is called a **parisian economy**. Note that parisian economies may or may not be european economies. Also note that a parisian economy may have english, and know English.

A parisian economy is superior to the italian economy, is **considered** superior to english economies, and is **considered** superior to **almost** every european economy, since a parisian economy may choose be a european economy.

There exists asymmetric information between every parisian economy and every english economy called **tension** or **the spirit of the republic**. A parisian economy and an

english economy may choose to **diffuse** tension by together producing a technology called **entrepreneurship**.

Entrepreneurship works by providing knowledge to individual(s) in both economies, to start firms in one or both economies, for both profit to those individuals, and to increase welfare of other individuals in both economies. Entrepreneurship is not possible without knowledge of welfare-increasing and welfare-decreasing factors, which is generally produced by both journalists and academics.

Artistic economy

Individuals that produce object(s) of art are called **artists**. The object of art that exists before any other object of art exists is called the **wonder**. The psychological economy that produces the wonder is called the **artistic economy**. The artistic economy does this by producing a technology called **artistry** before every other psychological economy. Artistry works by both producing more technologies called **disciplines of art**, and training artist(s) in disciplines of art. The artistic economy is superior to every parisian economy, since it exists before every parisian economy, and produces the wonder.

Scandinavian economy

A psychological economy that is not a dictatorship, is a parisian economy, has english, knows English, has europeons, has hindus, and has chosen to not turn fascist forever is called a **scandinavian economy**. A scandinavian economy is **considered** superior to every parisian economy until it **proves** its superiority by attracting and absorbing every individual from every dictatorship through a co-operative ethics program.

Portugaze economy and eitherland economy

Of all the psychological economies that ever exist, the psychological economy that discovers every psychological economy that exists before any other psychological economy does so is called the **portugaze economy**.

The portugaze economy does this by producing two technologies called **shipbuilding** and **portbuilding**, training individuals called **discoverers**, and publishing.

The portugaze economy has a unique **technological optionality**, which is to **share** information of discovery of every psychological economy with every psychological economy, by producing a technology called **cartography**. Individuals of the portugaze economy are called **portugeza**.

Of all the machine(s) that ever exist, the machine that exists before any other machine

exists is called **the ark** or **yantra**. The ark is unique, because, for a while, it may be the only machine that ever exists. Of all the psychological economies that ever exist, the psychological economy that acquires knowledge of the ark before every other psychological economy, is called the **eitherland economy**.

The eitherland economy faces a unique problem that is both a **psychological optionality** and a **psychological problem**, called the **problem of the ark**. Individuals of the eitherland economy are called **eitherlanders**.

The eitherland economy can solve the problem of the ark in the following ways:

1. The eitherland economy can **attempt** to produce a machine.

2. The eitherland economy can **attempt** to acquire the ark through trade.

3. The eitherland economy can **attempt** to acquire the ark through war.

4. The eitherland economy can **attempt** to absorb or be absorbed by the italian economy.

5. The eitherland economy can **spread** or **prevent spread of** knowledge of the ark with other psychological economies to aid **either** of the above solutions, by producing a technology called **communication**.

6. The eitherland economy can **combine** more than one or even all of these ways to produce a **solution** to the problem.

Note that the portugaze economy, the eitherland economy and the italian economy can choose to be confutious econom(ies), english econom(ies), european econom(ies) or even parisian econom(ies). The portugaze economy and the eitherland economy possess asymmetric information between them, both before and after the production of the ark, and may remove it through communication.

The portugaze economy is **considered** superior to the eitherland economy because of its technological optionality which may prevent the eitherland economy from acquiring knowledge of the ark.

The italian economy is **considered** superior to both the portugaze economy and the eitherland economy, since it has both accounting and machine(s) before any other psychological economy.

The solution produced to the problem of the ark by the eitherland economy is called **psychology**. Psychology is both technology and economic choice. After psychology is produced, eitherlanders call their economy the **neitherland economy**.

Spanner economy

A psychological economy that has produced machine(s) but not accounting is called a **spanner economy**. Note that a spanner economy is an egyptian economy, and needs to eventually produce actually to reach the long-run.

There exists asymmetric information among a spanner economy, the portugaze economy, the eitherland/neitherland economy, the italian economy, confutious economies in general, english economies in general, european economies in general, parisian economies, and scandinavian economies.

The superiority of a **spanner economy** is not clear until it produces actually, and it may **actually** be superior to the italian economy.

Ships and ports

Shipbuilding produces goods, called **ships** or **vehicles**, that enable individuals to enter and exit economies. Note that ships generally **interfere** with optionality, if it exists in the economy.

Portbuilding **develops** organizations, called **ports** or **gates**, that remove such **interference** and **clear** individuals to enter and exit an economy.

Vahana, ravana and lankan economy

A ship that exists before any port exists is called a **vahana**. An individual that uses a vahana is called a **ravana**. An economy, psychological or otherwise, with a vahana is called a **lankan economy**. A lankan economy is superior to every economy with optionality, until that economy produces portbuilding and develops ports/gates to clear every individual that enters or exits that economy.

Automated economy

A psychological economy that has machines that can produce at least two different products forever is called an **automated economy**. An automated economy generally produces two technologies called **advertising** and **marketing** to **enhance** production, trade and consumption of goods/services by its individuals.

Advertising works by publishing prices of goods and existing products produced by existing machines, in existing markets. Marketing works by discovering or **developing** new markets for goods and/or products produced in other economies for trade.

Invention, innovation and bazaar

Production of a new machine in an economy, to produce a new product that doesn't currently exist in the economy, is called **invention**. Modification of an existing factory in an economy into a machine is called **innovation**. Both invention and innovation generally require **specific** knowledge, labor and capital, not all of which may exist in the economy.

A market where individuals or organizations from two or more economies trade simultaneously is called a **bazaar**. Goods/services supplied in a bazaar generally come from different economies. Individuals and economies choose to trade in bazaars to acquire knowledge, labor and capital that doesn't exist in the economy, but exists in other economies, to ultimately cause invention and innovation.

Automono economy

The psychological economy that becomes an automated economy before any other psychological economy is called the **automono economy**. The automono economy is unique because any economy that chooses to become the advanced economy must first become the automono economy.

The automono economy is **technologically superior** to every other psychological economy at a point in time, but may or may not remain so forever, depending on whether it has produced accounting or needs to produce actually. Moreover, the automono economy is not **considered** superior until it becomes a scandinavian economy.

Yoga and yogic economy

Any technology that reduces or solves psychological problems in a psychological economy, including but not limited to lust, wrath, gluttony and sloth, among individuals in a psychological economy is called **yoga**.

Yoga that is produced by elites is called **rajayoga**. Yoga that is produced by individuals that are not elites is called **karmayoga**. Yoga that is produced in a temple, mosque or church is called **bhaktiyoga**. Whenever yoga increases the welfare of an individual, it is said to supply **shanti**, **sukoon** or **peace** to the individual.

A confutious economy generally reaches new welfare-increasing equilibria by producing or acquiring yoga. An economy with yoga is called a **yogic economy**. A psychological economy that becomes a yogic economy is superior to itself prior to being a yogic economy, because it reduces or solves its psychological problems.

Yoga that is also long-run technology, i.e., which requires zero labor and zero capital, is called **paramyoga**. Note that the advanced economy and superior economies are necessarily yogic economies that have produced or acquired paramyoga.

Removing pride and greed

Since pride and greed are value judgements, caused ultimately by asymmetric information, they can be removed only by acquiring knowledge of the buddhist economy and the mahabharat economy respectively.

Knowledge of the buddhist economy is called **diksha**. An organization that supplies diksha is called a **monastery**. An individual in a monastery is called a **monk**.

Knowledge of the mahabharat economy is called **gita**. An organization that supplies gita is called an **ashram**. An individual in an ashram is called a **bhakt**. An individual that supplies gita is called a **guru**. An individual that knows gita is called a **bharatiya**.

Labor by an individual to obtain diksha is called **siddhi**. Labor by an individual to obtain gita is called **shiksha**. Capital supplied by an individual to obtain diksha and/or gita is called **dakshina**. Capital supplied by an individual to a guru to obtain gita is called **gurudakshina**.

Data, statistical data, and dark economies

An economy may choose to produce information about itself. Such information is called the **data** of that economy. Data that is also knowledge is called **statistical data**. An economy that does not produce data is called a **dark economy**.

Name of a psychological economy, nation, colony

A psychological economy can produce knowledge of both its existence and its superiority through its **name**. A psychological economy with a name is called a **nation**. A psychological economy without a name is called a **colony**, and is generally **claimed** by a nation, until it **declares** its name by **describing** its superiority.

A psychological economy with a name that **mismatches** its superiority is eventually attacked by superior econom(ies), including the advanced economy.

A psychological economy with a name that has not been **described** is said to be **inviting research** by academics of nations, as well as the advanced economy.

A psychological economy with a name that has not been **described** is also said to be **inviting attack** as it is eventually attacked by superior econom(ies), including the advanced economy.

Proto-advancing economy

The automono economy that is a scandinavian economy, is a yogic economy, and all of whose individuals have diksha and gita is called the **proto-advancing economy**. The proto-advancing economy is superior to the automono economy because it has additional knowledge, technology and capital.

The proto-advancing economy is unique because the automono economy is unique. The proto-advancing economy is the only psychological economy that can become the **advanced economy**, and it does so by producing **advancing technologies**.

Technology that removes inferior technolog(ies) from an economy is said to supply **convenience**. An **advancing technology** is any superior technology that is not force, which also supplies convenience. Production of an advancing technology is generally welfare-increasing for individual(s) in an economy.

The proto-advancing economy may also choose to **retire** its economic actors and directors through an advancing technology called **judiciary**, which works by **introducing** them to the ethical problem and this paper, with the ultimate aim of **training** them into politicians.

Automation, robot and upgrade

A machine that requires zero labor to produce an additional good is called an **automation**. An automation that requires zero capital to produce an additional good is called a **robot**. Modification of an existing machine into an automation or robot is called an **upgrade**. The proto-advancing economy eventually upgrades all machines into robots through advancing technologies.

Restlessness, long-run technology and utopian values

Introduction of automation and/or robots in an economy generally causes another psychological problem in individuals called **restlessness**. Restlessness is characterized by labor by individuals to produce goods/services that cannot be produced by existing automation and/or robots, instead of labor by those same individuals to produce automation and/or robots that can produce those same goods/services.

Restlessness is caused by asymmetric information between individuals that produce automation/robots, and individuals that do not produce automation/robots. Restlessness is also a **societal problem** for governance. Restlessness may be reduced by **educating** restless individuals about technology, methods of production of robots, and about economies in general, including through this paper.

Note that restlessness can be reduced and removed through an **appropriate** yoga. Removal of restlessness in an economy requires that every factory/machine/automation in the economy be modified into robots, and that every individual have the **opportunity** to use every robot present in the economy at any time with zero labor and at zero price. An economy with such opportunity for every individual forever is said to have **utopian values**.

Rishi, yogi and gotra

An individual that produces yoga is called a **rishi**. An individual that uses yoga is called a **yogi**. A family in which at least one individual is a rishi, and at least one individual is a yogi that uses the yoga produced by that rishi, is called a **gotra**. The superiority of a gotra is determined by the yoga in that gotra.

Vedic economy

A psychological economy with gotra(s) is called a **vedic economy**. A vedic economy is superior to every psychological economy that is not a vedic economy. This is because a gotra **preserves** yoga that will not demanded by that psychological economy once it solves a particular psychological problem, but may be supplied to another psychological economy that has not solved that psychological problem.

Since gotras are economies, they may have their own ethics programs. An individual generally enters a gotra through either marriage or **discipline**.

An individual that wishes to enter a gotra by discipline is called a **disciple**. Entering a gotra by discipline generally requires supplying labor to a rishi of that gotra. This labor is called **penance**.

An individual that wishes to enter a gotra by marriage is called a **candidate**. Entering a gotra by marriage generally requires supplying capital to a rishi of that gotra. This capital is called **dowry**.

Entering a gotra by discipline is **considered** superior and is superior to entering a gotra by marriage. This is because the value of penance is known only to that rishi and disciple, whereas the value of dowry is generally known to all individuals, i.e., entering a gotra by discipline generally produces both new capital and new asymmetric information, whereas entering a gotra by marriage generally consumes existing capital.

Medic economy

The economic choice by an economy to become and **remain** a vedic economy forever is called **patience**.

Note that an economy, psychological or otherwise, that can be the advanced economy may choose patience before it becomes the advanced economy. Whenever it does so, that economy is called a **medic economy**. A medic economy is superior to every other psychological economy that has not chosen patience, since it **inspires** yoga. A medic economy **promotes** patience among its indivduals through **meditation**.

A psychological economy that chooses to become a medic economy undergoes an economic phenomenon called **conjunction**. Conjunction is characterized by **visitation** into an economy by rishi(s) and economist(s), including psychologist(s), from other econom(ies) for trade of both capital and knowledge in general, including technology and yoga.

Economists of a medic economy are called **medicis**. A medic economy generally supplies convenience to individuals by producing goods called **medical goods** and services called **medical services**. A medic economy generally **encourages** production and use of yoga to **strengthen** gotras in the economy.

Political economy

An economy that does not cause atrocity nor violence is called a **harmless economy**. An economy that is not a harmless economy is called a **chaotic economy** or **harmful economy**.

An economy that does not use force on a harmless economy is called a **sensible economy**. An economy that uses force on a chaotic economy is called an **opportunistic economy**.

A chaotic economy, demonic or otherwise, that causes or may cause atrocity and/or violence, generally produces propaganda, including but not limited to calling itself a **limited liability company** or a **liberating force** or a **nation of freedom**, or calling itself a **developed economy** without **actually** being a developed economy, or calling itself a **swarg** without **actually** being a swarg, or calling itself a **christian economy** without **actually** being a christian economy, or calling itself an **advanced economy** without **actually** being the advanced economy, or calling itself an **islamic economy** without **actually** being the islamic economy, or generally misrepresenting itself.

A chaotic economy may join groups of chaotic economies, called **offensive groups**, with the aim to use force on harmless economies, or to **persuade** economies into becoming harmful economies.

A harmless economy may join groups of harmless economies, called **defensive groups**, with the aim to **defend** themselves from force, atrocities and violence.

The islamic economy in which every individual is a politician is called the **political economy**.

The political economy is superior to every other economy, since every other economy eventually **tries** to become the political economy. An individual of the political economy is called a **raja**.

Co-operative moment of clarity

The point in time when the superiority of every economy is known to every individual is called the **co-operative moment of clarity**. The co-operative moment of clarity is generally preceded by increased trade of goods and services, including but not limited to financial goods and services. The co-operative moment of clarity must come before any economy achieves the long-run, as some economies may never achieve the long-run if the advanced economy chooses to cause terror forever.

Superiority of the buddhist and the mahabharat economy

The superiority of the buddhist and the mahabharat economy is **apparent** both before and after the co-operative moment of clarity.

Solving the psychological problem

The psychological problem can be solved for some individuals using a technology from the avatar economy called **love and care**. Love and care works **through** the avatars of the avatar economy.

The psychological problem can be solved for some individuals using a technology from a swarg called **peering**. Peering works **through** benevolent yakshini(s), school(s) or universit(ies) that are not jails, and psychologist(s) by removing asymmetric information and **conducting** marriage. Individuals that **conduct** marriage are called **priests**. Kayastas describe economies and secrets for priests and governance. Note that peering is not long-run technology.

The almighty

After the psychological problem has been solved in every psychological economy, individuals of the avatar economy may choose to absorb one another to form **the almighty**.

Light and gold

Knowledge produced in the advanced economy is called **light**. Capital produced in the advanced economy is called **gold**.

Biological economy

An economy that is neither the technological economy, nor a superior economy, nor a psychological economy is called a **biological economy**.

A biological economy is **not** superior to every psychological economy, but becomes superior to other biological econom(ies) by becoming a psychological economy, by acquiring envy and knowledge in general, through an economic phenomenon called **enlightenment**.

Enlightenment generally works through the economic choice of superior econom(ies) with envy, but may also be supplied by individual(s) of those econom(ies), called **profets**. A profet that is also an academic is called a **professor**.

Glimpse, augery, alchemy and professy

Finite time spent in the advanced economy or a superior economy by individual(s) from an economy that is neither the advanced economy nor a superior economy is called a **glimpse**.

A glimpse generally **occurs** through the economic choice of the advanced economy or a superior economy. Note that **undergoing** a glimpse may be **risky** for an economy.

Technology that supplies light through a glimpse into an economy that is neither the advanced economy nor a superior economy is called **augury**.

Technology that supplies gold through a glimpse into an economy that is neither the advanced economy nor a superior economy is called **alchemy**.

Technology that is produced in the advanced economy or a superior economy, but is available for use by a profet in an economy that is neither the advanced economy nor a superior economy is called **professy**.

Biological problems of a biological economy

A biological economy generally **succumbs** to **biological phenomen(a)** due to its biological **state**.

A biological economy may succumb to **mimicry**, which is characterized by production of **biological technology**, that **mimics** non-biological technology but don't produce the same **economic benefit**. Mimicry can be **overcome** by trade with non-biological econom(ies) to acquire non-biological technology.

A biological economy may succumb to **misery**, which is characterized by inadequate supply of capital in the economy. Misery is sometimes, but not always, caused due to insufficient trade of capital from other economies, including but not limited to non-biological economies.

A biological economy may succumb to **worship**, which is characterized by atrocity or violence against an individual to **turn** that individual into a politician. Worship is sometimes **accompanied** by propaganda about individual(s) that are not politician(s).

A biological economy may succumb to **politics**, which is characterized by **failure** to attract new politicians into the economy. Politics is sometimes **accompanied** by worship.

Individual(s) of a biological economy sometimes attempt to **overcome** the biological state of the biological economy through glimpse(s) supplied by the advanced economy or a superior economy.

A biological economy may succumb to **statehood**, which is characterized by atrocit(ies) or violence towards individual(s) that try to overcome the biological state of the biological economy. Statehood can sometimes, but not always, be overcome through glimpse(s) supplied by the advanced economy or a superior economy.

Political problems of the political economy

The political economy **suffers** from at least two **political problems** until it solves them:

1. The political economy suffers from **forcefulness** due to the presence of force between its rajas.

2. The political economy suffers from **jealousy** of swarg(s), inspite of being a superior economy, until it itself becomes a swarg.

Hinduism

The unique political phenomenon that the political economy **chooses** to undergo to become a swarg is called **hinduism**.

The End

Professy for certain individuals and economies

Soumadeep Ghosh

Hyderabad, India

Abstract In this paper, I supply knowledge through professy to certain individuals and economies, including some nations that will recieve further professy from me in the near future. The paper ends with "The End"

Introduction

In two previous papers, I have described economies in order of superiority culminating into a succint description of **hinduism**. While hinduism *proper* is the political phenomenon that the political economy undergoes to solve two of its political problems, namely forcefulness and jealousy of swargs, several other economies suffer from similar problems.

Some, but not all, of these economies, called **gentle economies**, demand knowledge from the political economy and swargs in general to fix these problems. Gentle economies eventually undergo unique economic phenomena of their own to remove forcefulness and jealousy of swargs. Improperly, however, these economic phenomena are also called hinduism, until they are described more accurately by the respective gentle economies.

The body of knowledge supplied to gentle economies to solve the problems of forcefulness and jealousy of swargs is collectively called **gentility**. Gentility is a **large** body of knowledge. Gentility is supplied to a gentle economy **discretely** and sometimes **discreetly** over time through an economic phenomenon called **deliverance**.

This paper, however, supplies professy to certain individuals and economies, including some nations that will recieve knowledge from me through further professy. Some, but not all, of this knowledge is gentility.

Professy for the nation Germany

Reichsland is possible. However, it has been **blocked** by other economies so far because of a simple reason: the economist of reichsland has not yet demanded gentility. This economist is of the family Mueller. This economist will eventually demand gentility and will be supplied gentility. Reichsland will begin to form after this happens.

Professy for some gentle nations

The following are the gentle nations for which I have professy that I am willing to supply.

1. Denmark
2. Finland
3. Greece
4. Romania
5. Norway
6. Bulgaria
7. Hungary
8. Russia

Professy for India

The professy by Nostradamus about a fox was referring to the economist Modi.

Professy for the brahmins

The brahmins will find a brahmin who will eventually demand the knowledge of the religious structure that needs to be constructed in India. I am willing to supply this knowledge for a monetary fee.

Professy for the saukaalin gotra

The Kali yuga will end earlier than expected due to the construction of a new Kali temple that will be configured by me.

Professy for the Mueller family

The economist of reichsland is from this family. The prominence of this family will grow further.

Professy for the Saha family

This family will come into prominence soon due to the technology and yoga produced by this family.

Professy for china

The possibility of china becoming a demonic economy still exists.

Professy for israel

Conflict with Palestine will continue for at least another decade since the time of this writing.

Professy for the Shalom family

Although most jewish economies recede to german economies, this family is one of the exceptions due to the yoga already produced by this family in conjunction with the avatar economy. This family will continue to produce prominent economists until the end of this Kali yuga.

Professy for the buddhist economy

A new stupa will be configured by me and constructed by the buddhists. The nation that constructs this stupa will be visited by the reincarnation of the Karmapa Lama after the birth of his child.

Professy for the Mitra family

This family will eventually produce yoga that will surpass the yoga of the Ghosh family. Prepare your individuals for discipline, wedding and marriage.

Professy for the economist Modi

You produced force when it was demanded of you. You should stop producing force and become a kayasta soon.

Professy for the economist Cochrane

You will enter a psychological economy that you haven't been in before within 3 years of this writing.

Professy for the psychologist Guha

The professy for you is private. I shall supply it to you whenever you demand it from me.

Professy for the psychologist Yellen

You will be given a chance to name a possible successor. Weakness in your heart and mind while naming your choice, if any, can and will be exploited by economists and economies in general.

Professy for the psychologist Pattanaik

You have been supplied knowledge of one of the avatars of the almighty. You may prepare candidates for marriage.

Professy for the economist Panagariya

You too have been supplied knowledge of one of the avatars of the almighty. You too may prepare candidates for marriage.

The End

Fundamental economic problems of confutious and american economies

Soumadeep Ghosh

Hyderabad, India

Abstract In this paper, I describe some fundamental economic problems of confutious and american economies. The paper ends with "The End"

Introduction

For an introduction to the terms used in this paper, the reader may refer to my previous paper titled 'Hinduism.'

The problem of costly reception

Individuals of a confutious economy generally face the problem of **costly** reception of information by individuals of another economy, as information produced by the confutious economy generally requires a cost to **filter**.

The problem of ignorance

A confutious economy generally undergoes **ignorance** by another economy if the cost to filter information from the confutious economy is large.

The problems of repeated and perpetual reconciliation

In confusion, an individual of a confutious economy undergoes an economic phenomenon called **reconciliation**, that is generally characterized by non-increasing or decreasing economic welfare of that individual. In case of a confutious economy, reconciliation is sometimes **repeated**. In case of an american economy, reconciliation is sometimes **perpetual**.

The problem of wary individuals in other economies

An individual that has knowledge of non-increasing or decreasing economic welfare from reconcilation is called a **wary** individual. A wary individual generally prefers to **avoid** reconciliation and may simply **ignore** all information from an economy known to be a confutious or an american economy.

The problem of a shorter technological window

The interval of time during which an economy can become the technological economy is called its **technological window**. Not all economies have a technological window. The technological window of a confutious economy is generally shorter than that of a non-confutious economy, since the number of wary individuals in economies generally increases.

The problem of isolation of wary individuals from capital

A confutious economy that knows about the problem of a shorter technological window may **resort** to **isolating** wary individuals from capital, even those from other economies, including through theft, kidnapping and rape. This generally results in **suspicion**, an increase in the number of wary individuals and sometimes a shorter technological window.

The problem of technological overreach

A confutious economy that knows about the problem of a shorter technological window may **resort** to producing superior technology at the **expense** of economic welfare of its individuals. This is called **technological overreach**. Technological overeach is atrocity and sometimes violence.

The problem of technological overwhelm

Some individuals of a confutious economy that is in technological overreach **suffer** from **technological overwhelm** that is characterized by use of inferior technology even when supplied superior technology. Technological overwhelm is sometimes, but not always, caused by the atrocities of technological overreach.

The problem of ineffective signalling for absorption

In ignorance, signalling from a confutious or american economy for absorption by a superior economy becomes ineffective. In case of prolonged ignorance, supply of absorption by a superior economy may become zero forever.

The End

Fundamental economic problems of germane and english economies

Soumadeep Ghosh

Hyderabad, India

Abstract In this paper, I describe some fundamental economic problems of germane and english economies. The paper ends with "The End"

Introduction

For an introduction to the terms used in this paper, the reader may refer to my previous paper titled 'Hinduism.'

The problem of adventurism

A germane economy or an english economy may undergo **adventurism**, which is characterized by some individuals of that economy **starting** war on other econom(ies) to **establish** empire. Prolonged adventurism is generally welfare-decreasing for economies, including, but not limited to, that germane or english economy.

The problem of americanism

A germane economy or an english economy may undergo **americanism**, which is characterized by some individuals of that economy producing knowledge of their preference that that economy **converts** or **reverts** to an american economy.

The problem of americanization

A germane economy or an english economy may undergo **americanization**, which is the **permanent** conversion of that economy to an american economy. A germane economy or an english economy may **try** to **avoid** americanization, including through war and/or through **cessation** of trade with american econom(ies).

The problem of american rape

A germane economy or an english economy or some of their individual(s) may suffer from **american rape** due to their economic choice to not become an american econnomy. This generally occurs due to **insufficient** policing.

The problem of overburdence of the king and/or the queen

An english economy with a large number of individuals generally suffers from the problem of **overburdence** of the king and/or the queen as asymmetric information generally increases with an increase in the number of individuals.

The problem of atrocity on subjects of monitoring

An english economy may suffer from **atrocity** on subjects of monitoring due to force produced in the economy or from other economies.

The problem of atrocity on the king and/or the queen

An english economy that is not in a welfare-increasing equlibrium sometimes **resorts** to **atrocity** on the king and/or the queen. An english economy under prolonged monitoring sometimes also **resorts** to **atrocity** on the king and/or the queen.

The problem of resignation of the king and/or the queen

An english economy may suffer from **resignation** of the king and/or the queen which may **reduce** the status of the english economy.

The problem of assassination of the king and/or the queen

An english economy with a prolonged period of violence on many individuals sometimes **resorts** to causing death, also called **assassination**, of the king and/or the queen.

The End

Biadation

Soumadeep Ghosh

Hyderabad, India

Abstract In this paper, I describe a simple economic phenomenon called biadation. The paper ends with "The End"

Introduction

Large financial economies sometimes have the economic choice to undergo a simple economic phenomenon called **biadation** that is described in this paper. Biadation is both technology and economic choice and is undergone by two financial economies simultaneously.

The stage for biadation

We have two financial economies E1 and E2 each with a bond B, a stock S and gold.

Each of the economies have **regulated** bond, stock, gold and financial markets with **deep** spot, forwards, futures and options trading on B_1, S_1, B_2, S_2 and gold in both economies.

A **biad** is a bundled offering of bond B from one economy and stock S from the other economy. A **golden biad** is a bundled offering of bond B from one economy, stock S from the other economy and gold.

Therefore, we have biads $(B_1 + S_2)$ and $(B_2 + S_1)$ and golden biads $(B_1 + S_2 + G)$ and $(B_2 + S_1 + G)$.

Standard biadation

Banks in each economy sell biads and golden biads to individuals and firms at premium. Individuals and financial firms buy biads and golden biads for investment, hedging and/or speculation.

Governance in each economy works with entrepreneurs via financial firms to create financial assets called **biad portfolios**:

$$A(r) = (1-r)(B_1 + S_2) + r(B_2 + S_1), \text{with various r}$$
$$B(r) = (1-r)(B_1 + S_2 + G) + r(B_2 + S_1 + G), \text{with various r}$$

.

Governance **manages** risk through **regulation** of biad portfolios, biads, golden biads and underlying goods. Financial firms undertake **financial risk** via marketing and selling of biads and biad portfolios for profit through arbitrage. Eventually, individuals and firms begin to hold biad portfolios for convenience, while market prices simultaneously adjust to new equilibria for all these assets.

Advantages of biadation

1. Biadation is an easy method to begin integration of two financial economies.

2. Biadation is financially safe for individuals as biads and golden biads are naturally hedged.

3. Biadation generally leads to new price discovery of underlying assets through markets.

4. Biadation is not very risky for economies since it leverages assets that are already traded in existing emarkets.

Biadation in practice

Biadation is generally undergone as part of a larger strategy to integrate two financial economies. Biadation works well whenever both financial economies are similar to each other. Biadation generally doesn't work well if only one of the two economies is a psychological economy. Financial economies generally undergo biadation with several distinct pairs of bond and stock. Financial economies generally don't undergo biadation with more than 3 other financial economies simultaneously to mitigate volatility in asset prices.

The End

Triadation

Soumadeep Ghosh

Hyderabad, India

Abstract In this paper, I describe the economic phenomenon called triadation. The paper ends with "The End"

Introduction

In a previous paper, I have described the economic phenomenon called biadation. There exists a similar but more complicated economic phenomenon called **triadation**.

Three large financial economies sometimes have the economic choice to undergo triadation that is described in this paper. Triadation is both technology and economic choice and is undergone by three financial economies simultaneously.

The stage for triadation

We have three financial economies E1, E2 and E3 each with a bond B and a stock S.

Each of the economies have **regulated** bond, stock and financial markets with **deep** spot, forwards, futures and options trading on B_1, S_1, B_2, S_2, B_3 and S_3.

A **bond-overweight triad** is a bundled offering of two bonds from two economies and a stock from the third economy. A **stock-overweight triad** is a bundled offering of two stocks from two economies and a bond from the third economy.

Therefore, we have bond-overweight triads (B_2+B_3+S_1), (B_3+B_1+S_2), and (B_1+B_2+S_3) and stock-overweight triads ($S_2 + S_3 + B_1$), ($S_3 + S_1 + B_2$), and ($S_1 + S_2 + B_3$).

Standard triadation

Banks in each economy sell bond-overweight triads and stock-overweight triads to individuals and firms at premium. Individuals and financial firms buy triads for investment, hedging and/or speculation.

Governance in each economy works with entrepreneurs via financial firms to create financial assets called **triad portfolios**:

$$A(r) = (1-r)(B_2 + B_3 + S_1) + r(S_2 + S_3 + B_1), \text{with various r}$$

$$B(r) = (1-r)(B_3 + B_1 + S_2) + r(S_3 + S_1 + B_2), \text{with various r}$$

$$C(r) = (1-r)(B_1 + B_2 + S_3) + r(S_1 + S_2 + B_3), \text{with various r}$$

Governance **manages** risk through **regulation** of triad portfolios, triads and underlying goods. Financial firms undertake **financial risk** via marketing and selling of triads and triad portfolios for profit through arbitrage. Eventually, individuals and firms begin to hold triad portfolios for convenience, while market prices simultaneously adjust to new equilibria for all these assets.

Advantages of triadation

1. Triadation is an easy method to begin integration of three financial economies.

2. Triadation is financially safe for individuals as triads are naturally hedged.

3. Triadation generally leads to new price discovery of underlying assets through markets.

4. Triadation is not very risky for economies since it leverages assets that are already traded in existing emarkets. However, triadation is riskier than biadation.

Triadation in practice

Triadation is generally undergone as part of a larger strategy to integrate three financial economies. Triadation works well whenever the three financial economies are similar to each other. Triadation generally doesn't work well if only one of the two economies is a psychological economy. Financial economies generally undergo triadation with several distinct triples of bond and stock. Financial economies generally don't undergo triadation with more than 2 other financial economies at the same time to mitigate volatility in asset prices. Sometimes, financial economies choose to undergo biadation, including 3-way mutual biadation, before undergoing triadation to further mitigate volatility in asset prices.

Gold-augmented triadation

Sometimes the three financial economies undergoing biadation establish a **deep** common gold market with spot, forward, futures and options trading of gold before undergoing triadation. Sometimes, this is **facilitated** by a fourth **benefactor** economy that profits from arbitrage of the gold price during triadation.

Quadation etc.

Quadation etc. is theoretically possible but is generally not observed as the large number of quads etc. become difficult to manage and market for banks and financial firms. Moreover, volatility in gold and asset prices generally increases with an increase in the number of financial economies involved.

The End

Hexation

Soumadeep Ghosh

Hyderabad, India

Abstract In this paper, I describe the economic phenomenon called hexation. The paper ends with "The End"

Introduction

Large financial economies sometimes have the economic choice to undergo an economic phenomenon called **hexation** that is described in this paper. Hexation is both technology and economic choice. Hexation is generally a prolonged phenomenon.

The stage for hexation

We have a large financial economy with a bond B, a stock S and gold. The economy has **regulated** bond, stock, gold and financial markets with **deep** spot, forwards, futures and options trading on B, S and gold.

Standard hexation

We have the following **hex positions**:
$a(t) = B(t) - G(t)$ and $a'(t) = G(t) - B(t)$
$b(t) = S(t) - B(t)$ and $b'(t) = B(t) - S(t)$
$c(t) = G(t) - S(t)$ and $c'(t) = S(t) - G(t)$

A bank in the economy **markets** financial assets at a premium to a **diverse** set of firms looking to speculate or diversify through each of the hex positions. Firms undertake **financial risk** by taking up hex positions through financial assets for a finite time period.

Sometimes these firms are extended a limited line of credit for trading on the hex position by banks for a fixed fee or a percentage of their profit in the time period. The fee is generally waived for firms that make a loss from their hex position in the time period.

Governance in the economy **manages** risk through **licensing** of the bank and **regulation** of financial assets.

Prolongation and reduction of hexation

As long as the economy has firms willing to take up hex positions, hexation is prolonged. If a hex position remains unprofitable for a prolonged period of time, firms no longer take that hex position and the hex reduces. The reduction may reverse if a hex position becomes profitable again for an extended period of time.

Limited economic stimulation by the bank

As $a(t) + b(t) + c(t) = 0 = a'(t) + b'(t) + c'(t)$, there exist two simple ways for the bank to increase the number of firms in the hex.

As $S(t)a(t) + G(t)b(t) + B(t)c(t) = 0 = S(t)a'(t) + G(t)b'(t) + B(t)c'(t)$, there exist two more ways for the bank to increase the number of firms in the hex. However, these ways are generally more difficult and riskier than the previous two ways.

Why do financial economies undergo hexation?

Economies undergo hexation for a variety of reasons, including reducing volatility in asset prices, profiting from speculatory behavior in markets, causing economic diversification through profit-sharing **and** risk-sharing, and sometimes for political reasons. Hexation is generally less risky for a large economy than direct trading of financial assets by a large number of its individuals, as large trading losses by firms are **back-stopped**, at least partially, by banks.

Hexation in practice

Financial economies generally undergo hexation with several distinct pairs of bond and stock. Financial firms generally have hex positions in more than one stock or bond. Hexation is generally prolonged if the economy is a psychological economy.

$a(t)$ and $a'(t)$ are called **governmental positions** as these positions are generally taken by firms that produce governance, since governance is sometimes able to affect one of (or both) $G(t)$ and $B(t)$.

$b(t)$ and $b'(t)$ are called **financial positions** as these positions are generally taken by financial firms, since financial firms are generally able to affect one of (or both) $B(t)$ and $S(t)$.

$c(t)$ and $c'(t)$ are called **corporate positions** as these positions are generally taken by large firms, called corportions, that produce gold, goods and/or technology and are generally able to affect one of (or both) $S(t)$ and $G(t)$.

Extending hexation

Economic phenomena similar to standard hexation are theoretically possible with an **appropriate** set of positions on a **different** set of assets.

The End

Two simple models of monetary expansion

Soumadeep Ghosh

Hyderabad, India

Abstract In this paper, I describe and compare two simple models of monetary expansion. The paper ends with "The End"

Introduction

Financial economies sometimes face the economic choice to increase the supply of money in the economy. Successful monetary expansion is generally a quick phenomenon as prolonging it is generally risky for the economy. Two broad but simple models of monetary expansion are described below:

The basic model of monetary expansion

The money supply is increased from X to Y. Define $k = \frac{Y}{X}$
There are two opposing market forces in play.
Expansionary market forces are characterized by $Y = X(1 + e)$
Contractionary market forces are characterized by $X = Y(1 - c)$
The model **suggests** that equilibrium values $\bar{c}$, $\bar{e}$ and $\bar{k}$ satisfy the following equations:

$$\bar{c} = \frac{\bar{e}}{1 + \bar{e}} \; ; \; \bar{k}^2 = \frac{1 + \bar{e}}{1 - \bar{c}}$$

Policy-making using the basic model

The second equation suggests that an estimate of a **marketable** amount of monetary expansion k^* can be obtained by first estimating the values of $\bar{e}$ and $\bar{c}$ from economic and financial data. The first equation serves as a check to **discover** more data and/or take **necessary** economic action.

Flaws of the basic model

The basic model is flawed since it completely ignores the demands of the financial sector of the economy, as well as the constraints of various futures, forwards and options on the money of the economy embodied through the financial sector. These demands and constraints are generally both **coupled** and **dispersed** and generally can't be **reliably** captured through the estimation of $\bar{e}$ and $\bar{c}$

The slack model of monetary expansion

The money supply is increased from X to Y. Define $k = \dfrac{Y}{X}$
There are two opposing market forces in play.
But there is also the financial sector that demands a **slack** to hedge risk.
Expansionary market forces are characterized by $Y = X(1 + e) + s$
Contractionary market forces are characterized by $X = Y(1 - c) + s$
Elimination of the slack variable leads to the following equation:

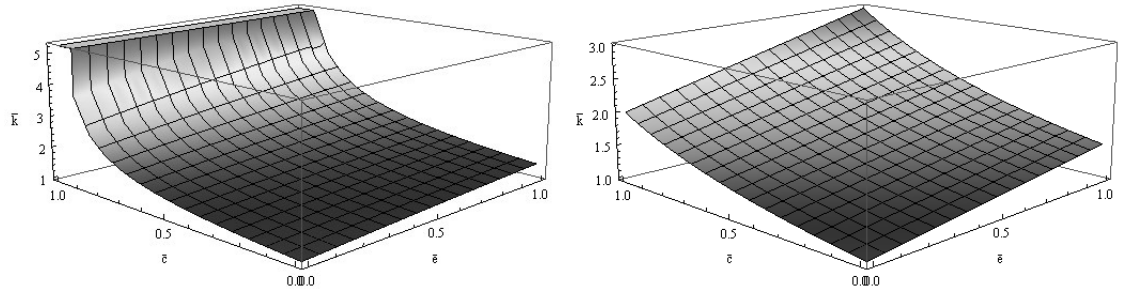
$$\bar{k} = \frac{2 + \bar{e}}{2 - \bar{c}}$$

Policy-making using the slack model

This equation too suggests that an estimate of a **marketable** amount of monetary expansion k^* can be obtained by first estimating the values of $\bar{e}$ and $\bar{c}$ from economic and financial data.

The equilibrium slack $\bar{s}$ is determined through **financial intermediation** by the financial sector of the economy, including banks, and **financial oversight** of the financial sector by governance, including regulation, in the economy. This determination must happen quickly as prolonging it is generally risky for the economy.

Figure 1: Comparing the two models



Practical comparision of the two models

When the economy has **sizeable** contractionary market forces, the first model cautiously **prescribes** a larger increase in money supply, which may be necessary to prevent deflation. However, in extreme cases, the financial sector is sometimes rendered dysfunctional or undergoes market failure, and practical application of this model is **severely** limited.

The second model is generally applied in **maturing** financial economies since they generally need to expand money supply without causing **market failure** in the financial sector of the economy. Practical application of this model generally requires **swift** financial intermediation by the financial sector and **strong** financial oversight by governance.

The End

A theory of geopolitical influence and imbalance

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a fundamental method of measuring geopolitical influence and imbalance for states. The paper ends with "The End"

Introduction

All states find methods to measure geopolitical imbalance and influence as these determine several economic and political outcomes including trade, diplomacy and war. A fundamental method of measuring geopolitical imbalance and influence is described in this paper.

The principal direction

The **principal direction** Ω is chosen differently by states depending on economic progress. Some choose it to be the direction of the rising sun and expand towards it. Others choose it to the be the direction of the nearest ally and trade towards it. Yet others choose it to be the direction of the nearest enemy and avoid that direction.

The method

The method involves geography, diplomacy and politics. Fundamentally, it involves the creation and analysis of the **geopolitical circle** of the state. A geopolitical circle is created by first mapping the directions of the capitals of neighbouring states on a circle. Meetings between representatives of the states usually follow. The geopolitical circle is then populated with **information** about the neighbouring states, including military, economic and political data which are co-operatively shared between the two states. The data is generally augmented with **intelligence** gathered by the state. Finally, the geopolitical circle is analyzed to determine geopolitical imbalance and influence on the state.

The geographic direction of influence

N is the **number of neighbouring states** given by the simple formula:

$$N = \sum_i 1$$

The **angles of the neighbouring states** θ_i are measured from the principal direction.

The **geographic direction of influence** θ_{geo} is given by the following formula:

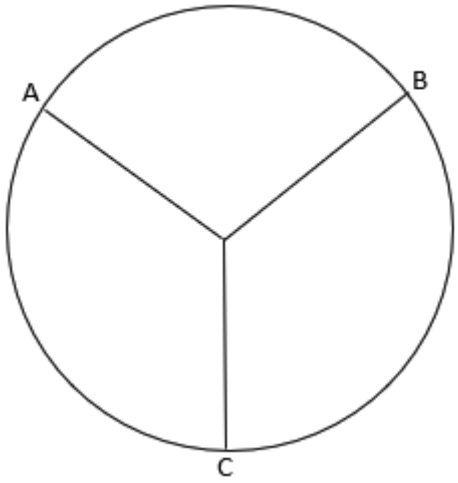
$$\theta_{geo} = \frac{\sum_{i=1}^{N} \theta_i}{N}$$

This is an estimate of the direction in which most of the **primitive trade** by the state is likely to occur.

Geopolitical circle of a hypothetical state

This is a geopolitical circle of a hypothetical state.

Figure 1: A hypothetical geopolitical circle



The neighbouring state capitals are marked A, B and C.

Progress

The state begins by populating some basic data of the neighbouring states on the circle.

1. M is the measure of the **size of the military** of the state.
2. W is the measure of the **wealth** of the state.
3. P is the measure of the **size of the population** of the state.

The construction of the circle proceeds by assigning three scores to the neighbouring states:

1. α is a score of the **military prowess** of the state.
2. β is a score of the **economic progress** of the state.
3. γ is a score of the **political stature** of the state.

The composite score Z of a neighbouring state is given by the following formula:

$$Z = \alpha \; log \; M + \beta \; log \; W + \gamma \; log \; P$$

The pole of primary influence

The **pole of primary influence** is given by the angle of the largest of the various Z_i of the neighbouring states. This is an estimate of the direction in which most of the **primitive diplomacy** and **post-primitive trade** of the state is likely to occur.

Angular gaps and geographic imbalance

The **angular gaps** ϕ_i are given by the differences between the various θ_i.

The **geographic imbalance** around the state can be measured by 2 estimators:

1. The **average angular gap** ϕ_{avg} is given by the formula $\phi_{avg} = \frac{\sum_{i=1}^{N} \phi_i}{N}$

   A large average angular gap is indicative of **large wars in the future**.

2. The **variance of angular gaps** $Var(\phi_i)$ is given by the formula $Var(\phi_i) = \frac{\sum_{i=1}^{N} (\phi_i - \phi_{avg})^2}{N}$

   A large variance of angular gap is indicative of a **war with a neighbouring state in the future**.

The zone of primary imbalance

The angluar gaps ϕ_i are arranged in decreasing order to give Φ_i. The **zone of primary imbalance** Φ_1 is given by the largest angular gap of the various ϕ_i. This is an estimate of the area where a large war is likely to occur in the foreseeable future. It is **also** the estimate of the area where diplomacy is likely to be found in order to **avert** the war.

The zones of early alliances

The **zones of early alliance** are generally found to be from Φ_n back towards Φ_2. This is an estimate of the area where alliances will **decide** large wars in the later future. They are **also** the estimate of the areas where diplomacy is likely to be found in order to **accelerate** the war.

Poles of secondary influence

The **poles of secondary influence** are given by the angles from the smallest of the various Z_i of the neighbouring states till Z_2. These are estimates of the direction in which most of the **prevalent diplomacy** and majority of **intermediate trade** of the state is likely to occur.

Geopolitical evaluation

The **average Z score** Z_{avg} is given by the formula:

$$Z_{avg} = \frac{\sum_{i=1}^{N} Z_i}{N}$$

This is a measure of the **geopolitical progress** of the **region** around the state including the neighbouring states.

The **variance of Z scores** $Var(Z_i)$ is given by the formula:

$$Var(Z_i) = \frac{\sum_{i=1}^{N} (Z_i - Z_{avg})^2}{N}$$

This is a measure of the **geopolitical imbalance** of the **region** around the state including the neighbouring states. The higher the variance, the more likely is **diplomacy in the short-term, trade in the medium-term but also war in the long-term**.

The **Z-weighted angle** Θ is given by the following formula:

$$\Theta = \frac{\sum_{i=1}^{N} \theta_i \ Z_i}{\sum_{i=1}^{N} Z_i}$$

This is the estimate of the **direction of geopolitical influence**.

The capital closest to this direction is the **seat of power**. **Immediate diplomacy, trade in the short-term, war in the medium-term and decline in the long-term** are likely at the seat of power.

The End

Empirical results involving distributions of forces

Soumadeep Ghosh

Hyderabad, India

Abstract In this paper, I describe some empirical results involving distributions of expansionary and contractionary forces. The paper ends with "The End"

Introduction

In a previous paper, I have described two models of monetary expansion, based on expansionary and contractionary market forces. In this paper, I describe some empirical results involving distributions of expansionary and contractionary forces.

b and disequilibrium

The quantity

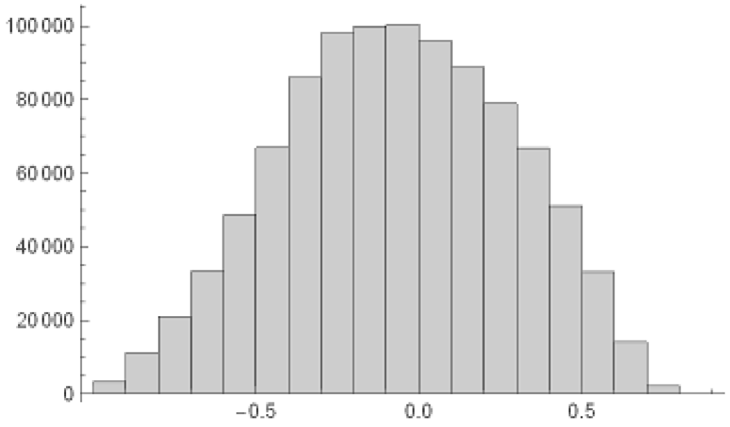
$$b = \frac{e}{1+e} - c$$

serves as a fundamental measure of disequilibrium in the economy. A zero b corresponds to **equilibrium** in the economy, a positive b corresponds to **expansionary disequilibrium** in the economy and a negative b corresponds to **contractionary disequilibrium** in the economy.

Empirical results

I used Mathematica to obtain distributions of b by sampling from underlying distributions of e and c. Descriptive statistics are shown in each case with a commentary on the economic implications of each case:

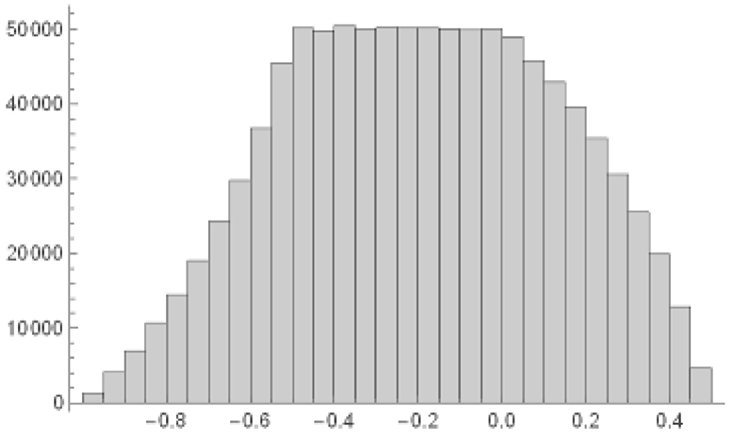
1. e sampled from a half-normal distribution and c sampled randomly from [0,1]




```
Minimum:  -0.998534 Mean:  -0.0685435 Median:  -0.0688291 Maximum:  0.823431
Standard Deviation:  0.349348
```

The economic implication of this simulation is that such an economy tends to be in a **contractionary disequilibrium**.

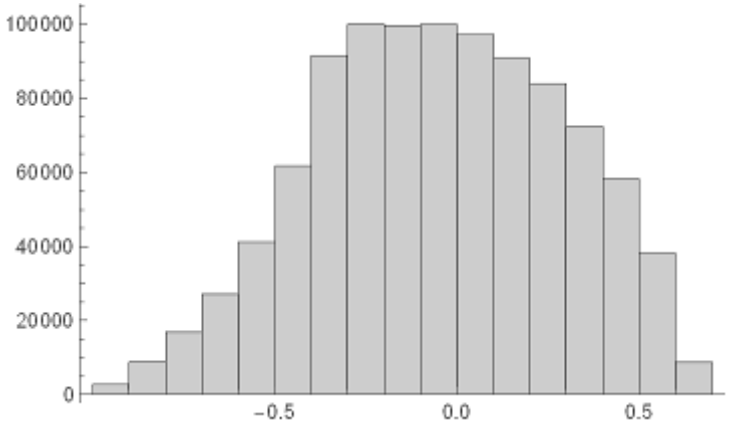
2. e sampled randomly from [0,1] and c sampled randomly from [0,1]




```
Minimum:  -0.999332 Mean:  -0.193488 Median:  -0.193663 Maximum:  0.499527
Standard Deviation:  0.320405
```

The economic implication of this simulation is that such an economy also tends to be in a **contractionary disequilibrium**.

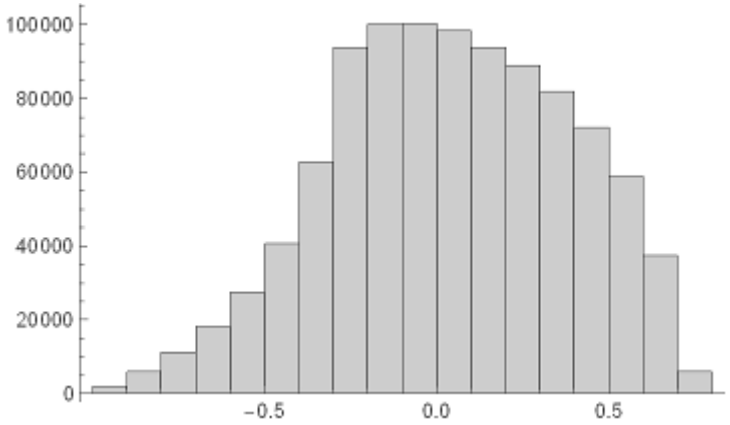
3. e sampled randomly from [0,2] and c sampled randomly from [0,1]




```
Minimum:  -0.998327 Mean:  -0.0501151 Median:  -0.0500521 Maximjum:  0.666261
Standard Deviation:  0.338995
```

The economic implication of this simulation is that such an economy also tends to be in a **contractionary disequilibrium**.

4. e sampled randomly from [0,3] and c sampled randomly from [0,1]




```
Minimum:  -0.997232 Mean:  0.0376862 Median:  0.037852 Maximum:  0.749534
Standard Deviation:  0.346169
```

The economic implication of this simulation is that such an economy tends to be in an **expansionary disequilibrium**.

Notebook

The Mathematica notebook `Dist.nb` is available online at `http://ghosh.site/Dist.nb`.

The End

Capital impairment and nuclear deterrence

Soumadeep Ghosh

Kolkata, India

Abstract In this paper I describe a single-period model of capital impairment and its application to the case of nuclear deterrence. The paper ends with "The End"

Introduction

It is traditionally believed by the nuclear powers that no matter what happens to their conventional capabilities during a major war, they can always rely on their nuclear weapons as a deterrent. But how does nuclear deterrence actually work?

In this paper, I describe a single-period model of capital impairment and apply it to the case of nuclear deterrence.

The model

There exists a capital stock K. An impairment D occurs ar $t = 0$. After waiting till $t = w$, capital is repaired by $t = T$. The rate of repair is r. The bank interest rate is b.

Therefore, we must have $(K - D)[1 + r(T - w)] \geq K(1 + bT)$

Differentiating with respect to K, we obtain

$$\frac{b}{r} + \frac{w}{T} \leq 1$$

Differentiating with respect to T, we obtain

$$\frac{b}{r} + \frac{D}{K} \leq 1$$

This inequality forms the basis of nuclear deterrence.

The mathematics of nuclear deterrence

The mathematics of deterrence is straight-forward. If the expected impairment $\mathbf{E}[D]$ to capital K is large enough such that

$$\frac{b}{r} + \frac{\mathbf{E}[D]}{K} > \tau$$

where τ is the level of tolerance, then deterrence is **realized**.

High-yield nuclear weapons that exist today easily produce the deterrence required in today's multi-polar world.

The psychology of nuclear deterrence

The psychology of deterrence is not as straight-forward. Nuclear weapons are **not** the weapon of choice against **any** enemy. Use of nuclear weapons against an enemy that does not have them will almost surely be perceived negatively in the international arena. Use of nuclear weapons on an enemy that also has them will almost surely be answered back in kind. And finally, no state produces nuclear weapons without contingent plans to use them in case of a major war. Thus, the psychology of nuclear deterrence works in the mind of the enemy.

Conclusion

Nuclear weapons were and continue to remain a necessary evil in the world because a strategic balance of power is needed to ensure that a multi-polar world remains a multi-polar world. The true cost of a nuclear attack to humanity probably cannot be captured by any model, howsoever complicated.

The End

Mapping the ideological mindscape

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the ideological mindscape as it exists in 2018 before the beginning of world war 3. The paper ends with "The End"

Introduction

There exist essentially 6 major mainstream ideologies that permeate the world. In alphabetic order they are:

1. Capitalism
2. Communism
3. Feminism
4. Hinduism
5. Marxism
6. Militarism

These six ideologies have their own strengths and weaknesses. Each of them is not the product of any mastermind, but the shared minds of various individuals. However, each of them has been described by various scholars of great importance.

Understanding ideology

There exists a crucial difference between ideology and belief. A belief is an individual's prerogative. But an ideology is the property of a socio-cultural group, sometimes encompassing entire nations. It is a product of both science and art. It is a bond that transcends everything else. As such one cannot understand ideology without being immersed in one.

At the same time, new ideologies are created all the time. Usually, a major ideology branches off into two or more sub-ideologies. More rarely, however, is there catharsis that merges two ideologies into one. It is not possible, therefore, to forecast future ideologies with any more certainty than it is for any other social phenomenon.

Are other ideologies not important?

It would be premature to say that ideologies other than these six are not important. There exist, of course, scholars of many minor ideologies - examples include everything from anarchism to futurism. But who is to say that an ideology, howsoever minor, is not important? After all, even the major ideologies are bound by geographical limits, if not anything else.

Is catharsis possible between the six?

The short answer is no. Every major ideology seeks to replace, if not consume, all the others. Individuals may switch their ideology. Even nations may switch their ideology. But there can be no catharsis between the ideologies themselves and any attempt to do so is futile.

What is the future then?

The answer to this is fairly simple and it is another question - Who knows whether this is not the steady state that holds for the future? After all, is it really possible to reject a major ideology without backlash or war? History tells us that this is simply not possible. So why not just accept it? Maybe the future demands that we do so.

The End

The theory of economic gearing

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the concept of economic gearing and the theory of the fourteen different types of sub-economies. The paper ends with "The End"

Introduction

The base of computation b and the currency C is decided by governance in the economy.

Then we may compute three **constants of economic gearing** p, q and r from the equations:

$$W = b^p G$$

$$M = b^q W$$

$$D = b^r M$$

where

G is the value of the gold in the economy in currency C,

W is the value of the wealth in the economy in currency C and

M is the value of the money in the economy in currency C and

D is the value of the debt in the economy in currency C.

The theory

Since there are 14 possible order relations between p, q and r, there exists, quantitatively, only 14 types of sub-economies as follows:

1. Type A: $p < q < r$
2. Type B: $p < q = r$
3. Type C: $p < r < q$
4. Type D: $p = q < r$
5. Type E: $p = q = r$
6. Type F: $p = r < q$
7. Type G: $q < p < r$
8. Type H: $q < p = r$
9. Type I: $q < r < p$
10. Type J: $q = r < p$
11. Type K: $r < p < q$
12. Type L: $r < p = q$
13. Type M: $r < q < p$
14. Type N: $r = q < p$

The End

Estimating the inner circle of influence

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a method to estimate the inner circle of influence from three circles of influence. The paper ends with "The End"

Introduction

Finding the inner circle of influence is often an important step in several fields including communication, economics, politics and psychology. A method to find the inner circle of influence is described in this paper.

The method

1. Let A, B and C be the centres of the three circles of influence and r_1, r_2 and r_3 be their respective radii.

2. Draw the two transverse common tangents between each pair of circles.

3. Let D, E and F be the points of intersection of the three pairs of transverse common tangents.

4. The incircle of the triangle $\Delta\ DEF$ is the estimate of the inner circle of influence.

Application of the method

The initial three circles of influence may be firms, jails, schools, universities, military installations etc. in a settlement. This method then allows one to find the inner circle of influence in the settlement, which may be government centres, banks, political firms, temples etc. The method may be iterated to find further inner circles of influence.

The End

Left, right and center

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe what it means to be aligned left, right or center. In addition, I describe three powerful incantations, one for each of the positions. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Z score to measure a state and predict trade, diplomacy and war with other states. It is in this context of interaction with another state that individuals are said to be aligned left, right or center.

Alignment

If the individual prefers that the interaction with the other state must happen first through political means, then through economic means and finally through militaric means, then the individual is said to **align to the left**.

If the individual prefers that the interaction with the other state must happen first through militaric means, then through economic means and finally through political means, then the individual is said to **align to the right**.

If the individual prefers that the interaction with the other state must happen first through economic means, then through either political means or militaric means, then the individual is said to **align to the center**.

Incantations

The incantaion for an individual aligned to the left is the following:
Oh Lord, if there is noone left, who will offer the obeisances unto you?

The incantaion for an individual aligned to the right is the following:
Oh Lord, thank you for this life, but make it better and make it right.

The incantaion for an individual aligned to the center is the following:
Oh Lord, as you are the center of the universe, let me be centered in you.

The End

The law of measured diplomacy

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the law of measured diplomacy based on the Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Z score to measure a state and predict trade, diplomacy and war with other states. In this paper, I describe the law of measured diplomacy based on the Z scores of the states.

Measured diplomacy

Measured diplomacy is the conduct of inter-state affairs based on some measure of the states. Use of the Z score as the measure then leads us to the following law of measured diplomacy.

The law of measured diplomacy

The law of measured diplomacy stipulates

$$\frac{D_B^A}{D_A^B} = \frac{Z_B^A}{Z_A^B}$$

where

D_B^A is the number of diplomats from state A in state B.

D_A^B is the number of diplomats from state B in state A.

Z_B^A is the Z-score of state B assigned by state A.

Z_A^B is the Z-score of state A assigned by state B.

The End

The law of measured war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the law of measured war based on the Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Z score to measure a state and predict trade, diplomacy and war with other states. In this paper, I describe the law of measured war based on the Z scores of the states.

Measured war

Measured war is the conduct of inter-state war based on some measure of the states. Use of the Z score as the measure then leads us to the following law of measured war.

The law of measured war

The law of measured war stipulates

$$\frac{D_B}{D_A} = (\frac{Z_A}{Z_B})^I$$

where

D_B is the number of deaths of militaric individuals from state B.

D_A is the number of deaths of militaric individuals from state A.

Z_A is the Z-score of state A assigned by state A.

Z_B is the Z-score of state B assigned by state B.

I is the intensity of the war.

The End

The laws of unequal war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the laws of unequal war based on the Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Z score to measure a state and predict trade, diplomacy and war with other states. In this paper, I describe the law of unequal war based on the Z scores of the states.

Unequal war

Unequal war is the conduct of inter-state war based on some measure of the states with an element of inequality. Use of the Z score as the measure then leads us to the following laws of unequal war.

The laws of unequal war

The laws of unequal war stipulate

$$I = a + b$$

$$\frac{D_B}{D_A} = \frac{(Z_A)^a}{(Z_B)^b}$$

where

I is the intensity of the war.

a is the intensity contributed by state A.

b is the intensity contributed by state B.

D_B is the number of deaths of militaric individuals from state B.

D_A is the number of deaths of militaric individuals from state A.

Z_A is the Z-score of state A assigned by state A.

Z_B is the Z-score of state B assigned by state B.

The End

The law of complex war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the law of complex war based on the Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Z score to measure a state and predict trade, diplomacy and war with other states. In this paper, I describe the law of complex war based on the Z scores of the states.

Complex war

Complex war is the conduct of inter-state war based on some measure of the states with an element of complexity. Use of the Z score as the measure then leads us to the following law of complex war.

The law of complex war

The law of complex war stipulates

$$\frac{D_B}{D_A} = \frac{(Z_A)^{Z_A}}{(Z_B)^{Z_B}}$$

where

D_B is the number of deaths of militaric individuals from state B.

D_A is the number of deaths of militaric individuals from state A.

Z_A is the Z-score of state A assigned by state A.

Z_B is the Z-score of state B assigned by state B.

The End

The law of synchronised war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the law of synchonised war based on the Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Z score to measure a state and predict trade, diplomacy and war with other states. In this paper, I describe the law of synchronised war based on the Z scores of the states.

Synchronised war

Synchronised war is the conduct of inter-state war based on some measure of the states with an element of synchronisity. Use of the Z score as the measure then leads us to the following law of synchronised war.

The law of synchronised war

The law of synchronised war stipulates

$$sinc(\frac{D_B}{D_A}) = \frac{Z_A}{Z_B}$$

where

$sinc(x)$ is the normalized sinc function.

D_B is the number of deaths of militaric individuals from state B.

D_A is the number of deaths of militaric individuals from state A.

Z_A is the Z-score of state A assigned by state A.

Z_B is the Z-score of state B assigned by state B.

The End

The law of hyperbolic war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the law of hyperbolic war based on the Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Z score to measure a state and predict trade, diplomacy and war with other states. In this paper, I describe the law of hyperbolic war based on the Z scores of the states.

Hyperbolic war

Hyperbolic war is the conduct of inter-state war based on some measure of the states with an element of hyperbolicity. Use of the Z score as the measure then leads us to the following law of hyperbolic war.

The law of hyperbolic war

The law of hyperbolic war stipulates

$$csch(\frac{D_B}{D_A}) = \frac{Z_A}{Z_B}$$

where

$csch(x)$ is the hyperbolic cosine function.

D_B is the number of deaths of militaric individuals from state B.

D_A is the number of deaths of militaric individuals from state A.

Z_A is the Z-score of state A assigned by state A.

Z_B is the Z-score of state B assigned by state B.

The End

The law of logarithmic war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the law of logarithmic war based on the Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Z score to measure a state and predict trade, diplomacy and war with other states. In this paper, I describe the law of logarithmic war based on the Z scores of the states.

Logarithmic war

Logarithmic war is the conduct of inter-state war based on some measure of the states with an element of logarithmicity. Use of the Z score as the measure then leads us to the following law of logarithmic war.

The law of logarithmic war

The law of logarithmic war stipulates

$$ln(\frac{D_B}{D_A}) = \frac{Z_A}{Z_B}$$

where

$ln(x)$ is the natural logarithmic function.

D_B is the number of deaths of militaric individuals from state B.

D_A is the number of deaths of militaric individuals from state A.

Z_A is the Z-score of state A assigned by state A.

Z_B is the Z-score of state B assigned by state B.

The End

Standard post-war diplomacy

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the standard post-war diplomacy that follows after the law of the war is satisfied. The paper ends with "The End"

Introduction

In previous papers, I have described the laws of various types of wars based on the Z scores of the states. In this paper, I describe the standard post-war diplomacy that follows after the law of the war is satisfied.

Satisfaction of the law of the war

The law of the war is said to be satisfied whenever one side presents a report of militaric deaths and its Z-score to another.

Standard post-war diplomacy

The standard post-war diplomacy after the satisfaction of the law of the war is to accept the report of militaric deaths and Z-score and hold a martial court of hearing in which signed testimony from the commanders of both sides is recorded along with the reports of militaric deaths and Z-score from both sides. The war is declared to be won by the side with the lowest number of militaric deaths. A treaty of peace is generally signed at this point by the king(s) and/or the representatives of the republic(s) involved in the war. Academics, journalists and propagandists all produce information of the result of the war soon after.

The End

Standard military buildings

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the standard military buildings found in most economies. The paper ends with "The End"

Introduction

Militaries usually construct buildings that serve specific purposes in an economy. In this paper, I describe the standard military buildings found in most economies.

Barracks

This is the most basic miltary building found in an economy. It serves as a residential and training facility for soldiers.

Archery range

Another basic miltary building found in an economy. It serves as a residential and training facility for archers and spearmen.

Shooting range

Another basic miltary building found in an economy. It serves as a residential and training facility for riflemen and snipers.

Granary

Miltary building found in an economy which produces grains and seeds. It serves as a production and storage facility for grains and seeds.

Oilfield

Miltary building found in an economy which produces oil. It serves as a production and storage facility for oil.

Coalfield

Miltary building found in an economy which produces coal. It serves as a production and storage facility for coal.

Resource facility

Miltary building found in an economy which produces other resources like metals, cement etc. It serves as a production and storage facility for resources.

Weapons factory

Miltary building found in an economy which produces weapons. It serves as a production facility for weapons like rifles, SMGs, machine guns etc.

Siege factory

Miltary building found in an economy which produces siege weapons. It serves as a construction and production facility for siege weapons like cannons, tanks, APCs etc.

Dock

Miltary building found in an economy which produces ships. It serves as a production and parking facility for ships and warships.

Fort/Castle

Strategic miltary building found in an economy. It serves as a residential, training and storage facility for soldiers, weapons, ammunition and siege weapons.

Academy

Miltary building found in an economy which produces plans. It serves as a facility for training soldiers and commanders.

Hospital

Miltary building found in an economy with medical services. It serves as a facility for training doctors and treating patients.

Airfield

Miltary building found in an economy which produces airplanes. It serves as a production and parking facility for airplanes and warplanes.

Helipad

Miltary building found in an economy which produces helicopters. It serves as a production and parking facility for helicopters.

Artillery depot

Miltary building found in an economy which produces artillery. It serves as a facility for training artillerymen and storing artillery equipment and ammunition.

Rail station

Miltary building found in an economy which produces trains. It serves as a facility for training railmen and storing railway equipment and trains.

Cellular tower

Miltary building found in an economy. It serves as a facility for training cellular operators and storing communcations equipment.

Radar station

Miltary building found in an economy. It serves as a facility for training radar operators and storing radar equipment.

Chemical war unit

Miltary building found in an economy. It serves as a facility for producing chemical agents and storing chemical equipment.

Anti-aircraft unit

Miltary building found in an economy. It serves as a facility for attacking enemy aircraft.

Missile silo

Miltary building found in an economy which produces missiles. It serves as a facility for training missilemen and storing missiles.

The End

Non-standard military implements

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the non-standard military implements found in superior economies. The paper ends with "The End"

Introduction

Militaries in superior economies have non-standard military implements that serve specific purposes in the economy.

In this paper, I describe the non-standard military implements found in militaries of superior economies.

High-nutrient food

Military implement to enhance soldier performance.

Infrared/Ultraviolet visor

Military implement to enhance land forces.

Cryptography

Military implement to enhance communication.

Rocket/Grenade launcher

Military implement that is usually found in land forces of superior economies.

Cruise missile

Military implement to enhance air forces.

Anti-ship missile

Military implement to enhance air/sea forces.

Surface-to-air missile site

Military building that is usually found in land forces of superior economies.

Intercontinental ballistic missile

Military implement to enhance land forces.

Minesweeper

Military implement to enhance land/sea forces.

Polar station

Military building in one of the polar ice caps that serves as a redundant unit.

Exo-suit

Military implement to enhance soldier peformance.

Nuclear power station

Military implement that for producing large amounts of energy.

Satellite

Military implement that usually comes in three varieties - geosynchronous, communication and imaging.

Automated assembly line

Military implement that is usually found in superior economies.

Nuclear warhead

Military implement for missiles that is usually found in superior economies.

Biological war unit

Military implement or building that is usually found in superior economies.

Psychological war unit

Military implement or building that is usually found in superior economies.

Electronic war unit

Military implement or building that is usually found in superior economies.

Mobile missile launcher

Military implement that is usually found in land forces of superior economies.

Ariel remote-controlled drone

Military implement that is usually found in air forces of superior economies.

War helicopter

Military implement that is usually found in air forces of superior economies.

Supersonic airplane

Military implement that is usually found in air forces of superior economies.

Stealth bomber

Military implement that is usually found in air forces of superior economies.

Nuclear-powered submarine

Military implement that is usually found in naval/sea forces of superior economies.

Laser weaponry

Military implement that is usually found in naval/land/air forces of superior economies.

Electromagnetic weaponry

Military implement that is usually found in land/air/naval/sea forces of superior economies.

Microwave weaponry

Military implement that is usually found in land forces of superior economies.

Rail gun

Military implement that is usually found in land/sea forces of superior economies.

Neutron weaponry

Military implement that is usually found in air forces of superior economies.

Plasma weaponry

Military implement that is usually found in air/land/naval forces of superior economies.

Hypersonic rentry vehicle

Military implement that is usually found in space forces of superior economies.

War robot

Military implement that is usually found in land forces of superior economies.

Artificial intelligence unit

Military implement or building that is usually found in militaries of superior economies.

Neural network

Military implement that is usually found in militaries of superior economies.

Data machine

Military implement that is usually found in militaries of superior economies.

Hive mind

Military implement that is usually found in militaries of superior economies.

Space-suit

Military implement to enhance soldier peformance.

Space station

Military building in space around the home planet that serves as a redundant unit.

Space rocket

Military implement that is usually found in space forces of superior economies.

Space shuttle

Military implement that is usually found in space forces of superior economies.

Cyclotron

Military building that is usually found in militaries of superior economies to study and extract energy from sub-atomic particles.

Anti-gravity drive

Military implement that is sometimes found in space forces of superior economies.

Magnetic levitation drive

Military implement that is sometimes found in air/space forces of superior economies.

Biological computer

Military implement that is sometimes found in militaries of superior economies.

Quantum computer

Military implement that is sometimes found in militaries of superior economies.

Lunar station

Military building in a moon of the home planet that serves as a redundant unit.

Missile defence shield

Military building or implement that serves as a defence against enemy missiles.

Specieal mind

Military implement that is usually found in large militaries of superior economies.

Backup planet

Military occupation of a planet near the home planet that serves as a redundant planet for habitation.

The End

The law of measured infiltration

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the law of measured infiltration based on the Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Z score to measure a state and predict trade, diplomacy and war with other states. In this paper, I describe the law of measured infiltration based on the Z scores of the states.

Measured infiltration

Measured infiltration is the conduct of inter-state infiltration based on some measure of the states. Use of the Z score as the measure then leads us to the following law of measured infiltration.

The law of measured infiltration

The law of measured infiltration stipulates

$$\frac{I_B^A}{I_A^B} = (\frac{Z_B^A}{Z_A^B})^{1/E[I]}$$

where

I_B^A is the number of infiltrators from state A in state B.

I_A^B is the number of infiltrators from state B in state A.

Z_B^A is the Z-score of state B assigned by state A.

Z_A^B is the Z-score of state A assigned by state B.

$E[I]$ is the expected intensity of the next measured war.

The End

Conscription and homeguard

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the militaric strategy called conscription and homeguard. The paper ends with "The End"

Introduction

The military in a homogenous economy has the option of using a militaric strategy called **conscription and homeguard**, which generally works well in homogenous economies. In this paper, I describe this strategy.

Conscription

Conscription has been used in many economies since a very long time. The standard method is to select an individual from each household to be conscripted into the military for monetary wages and be issued a standard weapon.

Homeguard

Homeguard is a strategy used by the military of a homogenous economy when there is an expectation of a war in the near future. The standard method is to post a militaric individual with a standard weapon into each household.

Combining both

The strategy called conscription and homeguard works by selecting an individual from each household, providing military training, issuing a standard weapon and posting the individual in that same household.

Such a strategy is generally used in homogenous economies to decrease the risk of war in the economy as each household is equipped to handle a militaric eventuality.

The End

Measuring bank independence

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the currency matrix, possible carry trades and the criterion for bank independence. The paper ends with "The End"

Introduction

Measuring **bank independence** is a crucial step in the conduction of monetary policy, fiscal policy and trade policy of a nation. In this paper, I describe the currency matrix, possible carry trades and my criterion of bank independence.

Currency matrix

Let C_i be the values of the currencies held in a bank.

Then a diagonal matrix with each entry being one of the C_i is called a **currency matrix**.

There are $n!$ currency matrices possible, where n is the total number of currencies held by the bank.

Carry trade

Let V_i be the set of eigenvectors of a currency matrix C.

Each eigenvector denotes a possible **carry trade**.

Let p be the total number of possible carry trades from all the currency matrices.

The measure I

Let q be the number of carry trades **realized** by the bank where $q <= p$

The measure for bank independence is

$$I = \frac{n! - q}{n!}$$

Criterion of bank independence

I $\epsilon [0.45, 0.75]$ is **acceptable**.

When $I < 0.45$, **change in bank management** is usually demanded.

When $I > 0.75$, **diversification of bank currency portfolio** is usually demanded.

The End

Frontierguard

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the militaric strategy called frontierguard. The paper ends with "The End"

Introduction

The military in a large economy has the option of using a militaric strategy called **frontierguard**, which generally works well in large economies during peacetime. In this paper, I describe this strategy.

Frontierguard

Let **F** be the simple closed curve that denotes the **frontier** of the economy.

The strategy called **frontierguard** works by posting militaric individuals, each with a standard weapon, within a **thickness** inside the frontier.

The thickness to be populated is given the following formula:

$$t = e^{\frac{E[I]ln(M)}{e}}u$$

where

t is the thickness

E[I] is the expected intensity of the next measured war

ln(M) is the natural logarithm of the size of the military of the economy

e is the base of the natural logarithm

u is the constant of distance decided by the military of the economy

The composition and density of the population in the thickness is determined by co-operation between governance and military of the economy. The composition usually changes in favour of the military with an increase in the expectation of the next measured war. The density usually increases with an increase in the expectation of the next measured war.

Such a strategy is generally used in large economies to decrease the risk of war from neighbouring economies as the frontier is equipped to handle a militaric eventuality.

The End

Joy to the world, the Lord has come!

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the re-incarnation of Lord Krishna born to deliver us in 2019. The paper ends with "The End"

Introduction

The Lord has come yet again into the world to deliver the faithfuls! Joy to the world!

Location

The re-incarnation of the Lord has been born in Vrindavan, India.

Name

The name of this re-incarnation is as written in the Vedas.

Professy

This re-incarnation will lead the faithfuls into heaven at the auspicious time.

Temple

A temple dedicated to this re-incarnation will be constructed after His heavenly departure from this world.

The End

Siegeguard

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the militaric strategy called siegeguard. The paper ends with "The End"

Introduction

The military in a large economy has the option of using a militaric strategy called **siegeguard**, which generally works well in large economies during wartime. In this paper, I describe this strategy.

Siegeguard

Let **S** be the simple closed inner curve that denotes the thickness of the frontierguard.

The strategy called **seigeguard** works by posting militaric individuals, each with a siege weapon, within a **thickness** inside S.

The thickness to be populated is given the following formula:

$$t = e^{\frac{Iln(M-m)}{e}} v + \delta$$

where

t is the thickness

I is the intensity of the current measured war

ln(M-m) is the natural logarithm of the size of the military of the economy minus the size of the military posted in frontierguard

e is the base of the natural logarithm

v is the constant of distance decided by the military of the economy, **different** from u

δ is the compensatory distance decided by the military of the economy

The composition and density of the population in the thickness is determined by the military of the economy. The composition usually changes in favour of units with non-standard weaponry with an increase in the intensity of the measured war. The density usually increases with an increase in the intensity of the measured war.

Such a strategy is generally used in large economies to counter the risk of seige war as the thickness is equipped to handle a militaric eventuality.

The End

Obtaining the Grace of Krishna

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the mantra to obtain the Grace of Lord Krishna. The paper ends with “The End”

Introduction

Knowledge has been demanded of me of how to obtain the Grace of Lord Krishna. In this paper, I describe the mantra to obtain the Grace of Lord Krishna.

The mantra

”Hawray nawmo nawmo Hawray.”

The method

Chant this mantra while facing the Sun. Lord Krishna will bestow His Grace onto you if you are a faithful. If you are a chosen one, Lord Krishna may also bestow His gifts onto you.

The End

Regimental sizes for a scalable military

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the regimental sizes for a scalable military. The paper ends with "The End"

Introduction

Scalability of the military is often desired during times of war. In this paper, I describe the regimental sizes for a scalable military.

The mathematics of regimental sizes

Suppose the regiment is of size wxh. We want to find w and h such that addition of another regiment of size wxh results in a bigger regiment of similar proportion.

Thus

$$\frac{h}{w} = \frac{2w}{h}$$

whence

$$h = \sqrt{2}w$$

Discretizing to obtain an approximate integral solution, we obtain

$$\frac{h}{w} = \frac{7}{5}$$

Thus the minimum regiment size is $5x7$.

Changing the scale factor

Changing the scale factor to 3 (so that addition of three similiar regiments results in a regiment of similar proportion) and proceeding as above gives us the minimum regiment size $10x17$.

Changing the scale factor to 4 (so that addition of four similiar regiments results in a regiment of similar proportion) and proceeding as above gives us the minimum regiment size $1x1$.

Conclusion

Thus we have found the ideal regiment sizes so that the military can be scaled with ease.

The End

The Y score

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the Y score which is useful in measuring several militaric outcomes. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Z score to measure a state and predict trade, diplomacy and war with other states. In this paper, I describe the Y score which is useful in measuring several militaric outcomes.

The Y score

The Y score is similar to the Z score in the sense that it uses a similar functional form but differs slightly by including parameters of the military.

The Y score is given by the following formula:

$$Y = \alpha \ log \ M + \beta \ log \ (W - m) + \gamma \ log \ (P - M)$$

where

α is a score of the **military prowess** of the state.

β is a score of the **economic progress** of the state.

γ is a score of the **political stature** of the state.

M is the **size of the military** of the state.

m is the **wealth of the military** of the state.

W is the **wealth** of the state.

P is the **size of the population** of the state.

The End

A model of skirmish

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of skirmish based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Y score to measure militaric outcomes. In this paper, I describe a model of skirmish based on the Y and Z scores of the states.

Skirmish

Skirmish is defined as a short fight between small groups of soldiers, especially one that is not planned.

The model

The model of skirmish is given by the following equations:

$$S_A = o_A|Z_A - Y_A|$$

$$S_B = o_B|Z_B - Y_B|$$

$$\frac{S_A}{S_B} = \frac{o_B}{o_A}e^{-At}$$

where

S_A is the number of skirmishers of state A

S_B is the number of skirmishers of state B

Y_A is the Y score of state A assigned by state A

Y_B is the Y score of state B assigned by state B

Z_A is the Z score of state A assigned by state B

Z_B is the Z score of state B assigned by state A

o_A is the co-efficient of **operational largeness** of state A

o_B is the co-efficient of **operational largeness** of state B

A is the **attenuation rate** of the skirmish

t is time since start of skirmish

The End

A model of nuclear war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of nuclear war based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Y score to measure militaric outcomes. In this paper, I describe a model of nuclear war based on the Y and Z scores of the states.

Nuclear war

Nuclear war is defined as a short fight between small groups of soldiers using nuclear weapons.

The model

The model of nuclear war is given by the following equations:

$$n_A = p_A|Z_A - Y_A|$$

$$n_B = p_B|Z_B - Y_B|$$

$$\frac{D_A}{D_B} = \frac{p_A}{p_B}$$

where

n_A is the number of nuclear weapons of state A

n_B is the number of nuclear weapons of state B

Z_A is the Z score of state A assigned by state B

Z_B is the Z score of state B assigned by state A

Y_A is the Y score of state A assigned by state A

Y_B is the Y score of state B assigned by state B

p_A is the co-efficient of **nuclear production** of state A

p_B is the co-efficient of **nuclear production** of state B

D_A is the number of militaric deaths of state A

D_B is the number of militaric deaths of state B

The End

A model of network war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of network war based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Y score to measure militaric outcomes. In this paper, I describe a model of network war based on the Y and Z scores of the states.

Network war

Network war is defined as a short fight between large groups of soldiers using computer networks.

The model

The model of network war is given by the following equations:

$$d_A = p_A|Z_A - Y_A|$$

$$d_B = p_B|Z_B - Y_B|$$

$$\frac{D_A}{D_B} = e^{\frac{p_A}{p_B}}$$

where

d_A is the number of computing devices of state A

d_B is the number of computing devices of state B

Z_A is the Z score of state A assigned by state B

Z_B is the Z score of state B assigned by state A

Y_A is the Y score of state A assigned by state A

Y_B is the Y score of state B assigned by state B

p_A is the co-efficient of **network production** of state A

p_B is the co-efficient of **network production** of state B

D_A is the number of militaric deaths of state A

D_B is the number of militaric deaths of state B

The End

A model of carrier war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of carrier war based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Y score to measure militaric outcomes. In this paper, I describe a model of network war based on the Y and Z scores of the states.

Carrier war

Carrier war is defined as a short fight between large groups of soldiers using aircraft carriers.

The model

The model of carrier war is given by the following equations:

$$c_A = p_A|Z_A - Y_A|$$

$$c_B = p_B|Z_B - Y_B|$$

$$\frac{S_A}{S_B} = 2^{\frac{c_A}{c_B}}$$

where

c_A is the number of aircraft carriers of state A

c_B is the number of aircraft carriers of state B

Z_A is the Z score of state A assigned by state B

Z_B is the Z score of state B assigned by state A

Y_A is the Y score of state A assigned by state A

Y_B is the Y score of state B assigned by state B

p_A is the co-efficient of **carrier production** of state A

p_B is the co-efficient of **carrier production** of state B

S_A is the number of sailors of state A

S_B is the number of sailors of state B

The End

A model of biological war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of biological war based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Y score to measure militaric outcomes. In this paper, I describe a model of biological war based on the Y and Z scores of the states.

Biological war

Biological war is defined as a short fight between large groups of soldiers using biological agents.

The model

The model of biological war is given by the following equations:

$$b_A = p_A|Z_A - Y_A|$$

$$b_B = p_B|Z_B - Y_B|$$

$$\frac{P_A}{P_B} = 3^{\frac{b_A}{b_B}}$$

where

b_A is the number of biological agents of state A

b_B is the number of biological agents of state B

Z_A is the Z score of state A assigned by state B

Z_B is the Z score of state B assigned by state A

Y_A is the Y score of state A assigned by state A

Y_B is the Y score of state B assigned by state B

p_A is the co-efficient of **biological production** of state A

p_B is the co-efficient of **biological production** of state B

P_A is the number of medical patients of state A

P_B is the number of medical patients of state B

The End

A model of chemical war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of chemical war based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Y score to measure militaric outcomes. In this paper, I describe a model of chemical war based on the Y and Z scores of the states.

Carrier war

Chemical war is defined as a short fight between large groups of soldiers using chemical agents.

The model

The model of chemical war is given by the following equations:

$$c_A = p_A|Z_A - Y_A|$$

$$c_B = p_B|Z_B - Y_B|$$

$$\frac{D_A}{D_B} = \pi^{\frac{c_A}{c_B}}$$

where

c_A is the number of chemical agents of state A

c_B is the number of chemical agents of state B

Z_A is the Z score of state A assigned by state B

Z_B is the Z score of state B assigned by state A

Y_A is the Y score of state A assigned by state A

Y_B is the Y score of state B assigned by state B

p_A is the co-efficient of **chemical production** of state A

p_B is the co-efficient of **chemical production** of state B

D_A is the number of medical doctors of state A

D_B is the number of medical doctors of state B

The End

A model of raid

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of raid based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Y score to measure militaric outcomes. In this paper, I describe a model of raid based on the Y and Z scores of the states.

Raid

Raid is defined as a short surprise attack using small groups of soldiers, especially one where wealth is looted.

The model

The model of raid is given by the following equations:

$$r_A = t_A|Z_A - Y_A|$$

$$r_B = t_B|Z_B - Y_B|$$

$$\frac{L_A}{L_B} = (\frac{t_A}{t_B})^{\frac{r_A}{r_B}}$$

where

r_A is the number of raiders of state A

r_B is the number of raiders of state B

Z_A is the Z score of state A assigned by state B

Z_B is the Z score of state B assigned by state A

Y_A is the Y score of state A assigned by state A

Y_B is the Y score of state B assigned by state B

t_A is the co-efficient of **raider training** of state A

t_B is the co-efficient of **raider training** of state B

L_A is the amount of wealth looted by state A

L_B is the amount of wealth looted by state B

The End

A model of rote learning

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of rote learning based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Y score to measure militaric outcomes. In this paper, I describe a model of rote learning based on the Y and Z scores of the states.

Rote learning

Rote learning is defined as learning by repeating until memorization using small groups of soldiers.

The model

The model of rote learning is given by the following equations:

$$l_A = t_A|Z_A - Y_A|$$

$$l_B = t_B|Z_B - Y_B|$$

$$\frac{K_A}{K_B} = (\frac{l_A}{l_B})^{\frac{t_A}{t_B}}$$

where

l_A is the number of learners of state A

l_B is the number of learners of state B

Z_A is the Z score of state A assigned by state B

Z_B is the Z score of state B assigned by state A

Y_A is the Y score of state A assigned by state A

Y_B is the Y score of state B assigned by state B

t_A is the co-efficient of **learner training** of state A

t_B is the co-efficient of **learner training** of state B

K_A is the amount of knowledge learned by state A

K_B is the amount of knowledge learned by state B

The End

A model of exchange rate stabilization

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of exchange rate stabilization based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Y score to measure militaric outcomes. In this paper, I describe a model of exchange rate stabilization based on the Y and Z scores of the states.

Exchange rate stabilization

Exchange rate stabilization is defined as a large period of stability in the exchange rate between two states.

The model

The model of exchange rate stabilization is given by the following equations:

$$C_A = c_A|Z_A - Y_A|$$

$$C_B = c_B|Z_B - Y_B|$$

$$\frac{C_A}{C_B} = \frac{c_A}{c_B}e^{-Bt}$$

where

C_A is the amount of currency of state A

C_B is the amount of currency of state B

Y_A is the Y score of state A assigned by state A

Y_B is the Y score of state B assigned by state B

Z_A is the Z score of state A assigned by state B

Z_B is the Z score of state B assigned by state A

c_A is the co-efficient of **currency production** of state A

c_B is the co-efficient of **currency production** of state B

B is the **balance rate** of the stabilization

t is time since start of stabilization

The End

A model of embargo

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of embargo based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Y score to measure militaric outcomes. In this paper, I describe a model of embargo based on the Y and Z scores of the states.

Embargo

Embargo is defined as an order by one state to cease trade with another state.

The model

The model of embargo is given by the following equations:

$$C_A = t_A|Z_A - Y_A|$$

$$C_B = t_B|Z_B - Y_B|$$

$$\frac{W_A}{W_B} = \frac{C_A}{C_B}$$

where

C_A is the number of customs officers of state A

C_B is the number of customs officers of state B

Y_A is the Y score of state A assigned by state A

Y_B is the Y score of state B assigned by state B

Z_A is the Z score of state A assigned by state B

Z_B is the Z score of state B assigned by state A

t_A is the co-efficient of **customs training** of state A

t_B is the co-efficient of **customs training** of state B

W_A is the amount of wealth **confiscated** by state A

W_B is the amount of wealth **confiscated** by state B

The End

On state-sponsored use of mercenaries

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe and compare two models of state-sponsored use of mercenaries. The paper ends with "The End"

Introduction

State-sponsored use of mercenaries is a very old practice. But does it actually work? In this paper, I describe and compare two models of state-sponsored use of mercenaries.

Mercenaries

A **mercenary** is a soldier who will fight for any state that offers monetary compensation.

Mercenary armies have existed and have been hired since ancient times.

Contrary to popular belief, mercenary armies are both a necessity and a reality. This is because certain geopolitical risks are best addressed by a militaric-mercenaric joint operation.

The risk-differential model

The **risk-differential model** of state-sponsored use of mercenaries is given by the following equations:

$$(1-f)L = (R+r)k$$

$$fL = MW + mw$$

$$W = Rk$$

$$w = rk$$

where

L is the loot obtained from the militaric-mercenaric joint operation.

$(1-f)$ is the fraction of loot given to state.

f is the fraction of loot given to the militaric and mercenaric forces.

M is the number of militaric individuals

W is the wage per militaric individual

m is the number of mercenaric individuals

w is the wage per mercenaric individual

R is the measure of risk taken per militaric individual

r is the measure of risk taken per mercenaric individual

k is the wage-risk constant

This is a standard model that has been in use since ancient times.

The lumpsum-survivor model

The **lumpsum-survivor model** of state-sponsored use of mercenaries is given by the following equations:

$$(1-f)L = (R+r)k$$

$$fL = MW + S$$

$$W = Rk$$

$$S = E[s]rk$$

where L is the loot obtained from the militaric-mercenaric joint operation.

$(1-f)$ is the fraction of loot given to state.

f is the fraction of loot given to the militaric and mercenaric forces.

M is the number of militaric individuals

W is the wage per militaric individual

S is the lumpsum given to mercenaric individuals

$E[s]$ is the expected number of mercenaric survivors

R is the measure of risk taken per militaric individual

r is the measure of risk taken per mercenaric individual

k is the wage-risk constant

This too is a standard model, but it has been in use in modern times since results of militaric-mercenaric joint operations could be forecasted with confidence.

Comparison of the two models

The risk-differential model has the advantage of being a tried-and-tested model which has been used since antiquity. But the state might end up overpaying the mercenaries by the use of this model.

The lumpsum-survivor model has the disadvantage that it relies on various external sources of information for the forecast of mercenaric survivors. The state usually ends up paying a smaller amount to the mercenaries but the model raises ethical questions about the role of the mercenary individuals that do not survive.

The End

Hawrey Krishno Bawlo Hawrey Krishno

Soumadeep Ghosh

Kolkata, India

Bhajman Ram Rahim Japman Krishna Karim

Soumadeep Ghosh

Kolkata, India

Krishno Bawlo Shonge Chawlo

Soumadeep Ghosh

Kolkata, India

On demonization of political opponents

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the political phenomemon of demonization of political opponents. The paper ends with "The End"

Introduction

Demonization of political opponents is a very old practice. But how does it actually work? In this paper, I describe and compare two methods of demonization of political opponents.

Demonization

Demonization is defined as describing an individual in a way that is intended to make others think of them as evil or dangerous.

The unprosecuted-crime method

Suppose $-C$ is the monetary value of an unprosecuted crime committed by the individual.

The unprosecuted-crime method works by producing asymmetric information AI of the crime given by the following formula:

$$log_2 log_2 AI = -lnC$$

The wealth-GDP-ratio method

Suppose W is the monetary value of the wealth of the individual.

Suppose G is the monetary value of the GDP of the economy of the individual.

The wealth-GDP-ratio method works by producing asymmetric information AI of the wealth of the individual given by the following formula:

$$log_2 log_2 AI = -lnW + lnG$$

Comparison of the two methods

The first method has reasonable success whenever the value of C is large. However, it may **back-fire** if the value of C is small.

The second method has reasonable success whenever the economy of the individual suffers from greed. However, it may **back-fire** if the economy knows about this method.

The End

A model of art

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of art for artists. The paper ends with "The End"

Introduction

Artists may benefit from a model of art that is described in this paper. This model is intended to be a guideline for the artist, but as any artist knows, the artist is free to ignore this model.

The life of the artist

The life of the artist is a continuous struggle to remain true to their values, training to excel in their art and to produce works that remain relevant and indeed inspirational for large periods of time. The artist thus needs to be nurtured by the society in which he/she lives.

The model

The model of art is given by the following equations:

$$I_A = t_A s_A$$

$$S_A = T_A ln I_A$$

$$log_2 log_5 A_A = S_A$$

where

I_A is the income of the artist

t_A is the co-efficient of **teaching** of the artist

s_A is the number of **students** of the artist

S_A is the **skill level** of the artist

T_A is the co-efficient of **training** of the artist

A_A is the monetary value of the work of art by the artist

The End

A model of trade war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of trade war based on the bank rate and repo rate of the states. The paper ends with "The End"

Introduction

Trade wars have been waged since ancient times. In this paper, I describe a model of trade war based on the bank rate and repo rate of the states.

Trade war

Trade war is defined as disruption of trade between two states using monetary policy tools.

The model

The model of trade war is given by the following equations:

$$d_A = t_A|r_A - b_A|$$

$$d_B = t_B|r_B - b_B|$$

$$\frac{U_A}{U_B} = \frac{d_A}{d_B}$$

where

r_A is the repo rate of state A

r_B is the repo rate of state B

b_A is the bank rate of state A

b_B is the bank rate of state B

t_A is the number of **monetary policy tools** of state A

t_B is the number of **monetary policy tools** of state B

d_A is number of **trade disruptors** of state A

d_B is number of **trade disruptors** of state B

U_A is the amount of **unrealized trade** of state A

U_B is the amount of **unrealized trade** of state B

The End

A model of civil war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of civil war based on the repo rate and reverse-repo rate of the states. The paper ends with "The End"

Introduction

Civil wars have been waged since ancient times. In this paper, I describe a model of civil war based on the repo rate and reverse-repo rate of the states.

Civil war

Civil war is defined as disruption of trade between two states using lawyers.

The model

The model of civil war is given by the following equations:

$$d_A = l_A|r_A - rr_A|$$

$$d_B = l_B|r_B - rr_B|$$

$$\frac{U_A}{U_B} = \frac{d_A}{d_B}$$

where

r_A is the repo rate of state A

r_B is the repo rate of state B

rr_A is the reverse-repo rate of state A

rr_B is the reverse-repo rate of state B

l_A is the number of **lawyers** of state A

l_B is the number of **lawyers** of state B

d_A is number of **trade disputes** of state A

d_B is number of **trade disputes** of state B

U_A is the amount of **unrealized trade** of state A

U_B is the amount of **unrealized trade** of state B

The End

The classical measures of a bank

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the classical measures of a bank in use since ancient times. The paper ends with "The End"

Introduction

Measuring the stablity, effectiveness and longevity of a bank are crucial steps in the lifecycle of a bank.

Stability

The measure of stability S is obtained by running the following regression:

$$G = T + Sln(G - T)$$

where

G is the amount of gold reserves of the bank

T is the amount of true reserves of the bank

S is the measure of stability of the bank

Effectiveness

The measure of effectiveness E is obtained by running the following regression:

$$r = r_f + Eln(r - r_f)$$

where

r is the bank rate of the bank

r_f is the risk-free rate of the bank

E is the measure of effectiveness of the bank

Longevity

The measure of longevity L is obtained by running the following regression:

$$D = D_m + Lln(D - D_m)$$

where

D is the duration of the bond portfolio of the bank

D_m is the modified duration of the bond portfolio of the bank

L is the measure of longevity of the bank

The End

A model of proxy war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of proxy war based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

Proxy wars have been waged since ancient times. In this paper, I describe a model of proxy war based on the Y and Z scores of the states.

Proxy war

Proxy war is defined as a war between two states using politicians.

The model

The model of proxy war is given by the following equations:

$$C_A = f_A|Z_A - Y_A|$$

$$C_B = f_B|Z_B - Y_B|$$

$$\frac{U_A}{U_B} = \frac{C_A}{C_B}$$

$$W_A = p_A C_A$$

$$W_B = p_B C_B$$

$$\frac{D_A}{D_B} = \left(\frac{W_A}{W_B}\right)^I$$

where

Z_A is the Z score of state A

Z_B is the Z score of state B

Y_A is the Y score of state A

Y_B is the Y score of state B

f_A is the number of **funded politicians** of state A

f_B is the number of **funded politicians** of state B

C_A is the wealth of the **warchest** of state A

C_B is the wealth of the **warchest** of state B

U_A is the amount of **unrealized trade** of state A

U_B is the amount of **unrealized trade** of state B

W_A is the number of **weapons produced** by state A

W_B is the number of **weapons produced** by state B

p_A is the co-efficient of **weapons production** of state A

p_B is the co-efficient of **weapons production** of state B

D_A is number of **militaric deaths** of state A

D_B is number of **militaric deaths** of state B

I is the intensity of the proxy war.

The End

A model of the chinese war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of the chinese war based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

The chinese war is the first of the classical wars that will be fought in the world. In this paper, I describe a model of the chinese war based on the Y and Z scores of the states.

Chinese war

Chinese war is defined as a war between two states using philosophers, characterized by production of inferior goods and unrealized trade.

The model

The model of the chinese war is given by the following equations:

$$K_A = p_A|Z_A - Y_A|$$

$$K_C = p_C|Z_C - Y_C|$$

$$\frac{A_A}{A_C} = \frac{K_A}{K_C}e^{-Bt}$$

$$I_A = e^{Bt}A_A$$

$$I_C = e^{Bt}A_C$$

$$\frac{U_A}{U_C} = \frac{I_A}{I_C}$$

where

Z_A is the Z score of state A

Z_C is the Z score of state C

Y_A is the Y score of state A

Y_C is the Y score of state C

p_A is the number of **philosophers** trained by state A

p_C is the number of **philosophers** trained by state C

K_A is the **knowledge** produced by state A

K_C is the **knowledge** produced by state C

A_A is the **asymmetric information** produced by state A

A_C is the **asymmetric information** produced by state C

B is the **balance rate** of the chinese war

t is time since start of the chinese war

I_A is the number of **inferior goods** produced by state A

I_C is the number of **inferior goods** produced by state C

U_A is the amount of **unrealized trade** of state A

U_C is the amount of **unrealized trade** of state C

The End

A model of the russian war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of the russian war based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

The russian war is the second of the classical wars that will be fought in the world. In this paper, I describe a model of the russian war based on the Y and Z scores of the states.

Russian war

Russian war is defined as a war between two states using nuclear weapons using unrealized trade.

The model

The model of the russian war is given by the following equations:

$$U_A = n_A|Z_A - Y_A|$$

$$U_R = n_R|Z_R - Y_R|$$

$$\frac{U_A}{U_R} = \frac{n_A}{n_R}e^{-Bt}$$

where

Z_A is the Z score of state A

Z_R is the Z score of state R

Y_A is the Y score of state A

Y_R is the Y score of state R

U_A is the amount of **unrealized trade** of state A

U_R is the amount of **unrealized trade** of state R

n_A is the number of **nuclear weapons** produced by state A

n_R is the number of **nuclear weapons** produced by state R

B is the **balance rate** of the russian war

t is time since start of the russian war

The End

A model of the jewish-islamic war

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of the jewish-islamic war based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

The jewish-islamic war is the third of the classical wars that will be fought in the world. In this paper, I describe a model of the jewish-islamic war based on the Y and Z scores of the states.

Jewish-islamic war

Jewish-islamic war (also known as **jihad**) is defined as a war between the jewish and the islamic states using priests/prophets and conversion.

The model

The model of the jewish-islamic war is given by the following equations:

$$F_J = p_J|Z_J - Y_J|$$

$$F_I = p_I|Z_I - Y_I|$$

$$\frac{C_J}{C_I} = \frac{p_J}{p_I}e^{-Gt}$$

where

Z_J is the Z score of the jewish state

Z_I is the Z score of the islamic state

Y_J is the Y score of the jewish state

Y_I is the Y score of islamic state

F_J is the number of **jewish families**

F_I is the amount of **islamic families**

p_J is the number of **jewish priests**

p_I is the number of **islamic prophets**

G is the **gold rate**

t is time since start of the jewish-islamic war

C_J is the number of **jewish converts**

C_I is the amount of **islamic converts**

The End

Thwarting the conspiracies aganst hinduism

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the methods to thwart the conspiracies against hinduism. The paper ends with "The End"

Introduction

Thwarting the three major conspiracies against hinduism is very easy if one knows the right methods.

Thwarting the brahmahana conspiracy

The brahmahana conspiracy seeks to turn the brahmins in assassins. This conspiracy is easily thwarted by supplying the conspirator the right amount of **indian hash**.

Thwarting the shivaic conspiracy

The shivaic conspiracy seeks to turn the mahadeva into shiva. This conspiracy is easily thwarted by supplying the conspirator the right amount of **avataric ash**.

Thwarting the antimasonic conspiracy

The antimasonic conspiracy seeks to neutralize soni. This conspiracy is easily thrwated by soni's mother by supplying the conspirator with the right amount of **masonic silence**.

The End

Pacifying Death

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the need to pacify Death and His cure. The paper ends with "The End"

Introduction

Due to the deaths in the past wars fought in various economies, Death (also known as Yama) has developed a morbid fascination.

The need for the cure

It is necessary to cure Death of His morbidity lest He starts a Yamahic war to fuel His fascination.

The cure

I recommend individuals to perform the Yamahic ritual of offering beetlenuts to His bull and showing Him the suffering faces of dead individuals from various economies in order to counter His growing fascination.

The omen

If the economists are unable to do this, it might fuel a Yamahic war among the various economies.

The End

A model of the war of constantinopole

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of the war of constantinopole based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

The war of constantinopole is the fourth of the classical wars that will be fought in the world. In this paper, I describe a model of the war of constantinopole based on the Y and Z scores of the states.

The war of constantinopole

The war of constantinopole is defined as a war between the romano-christian and the islamic-automono states using companies.

The model

The model of the war of constantinopole is given by the following equations:

$$F_{RC} = p_R|Z_R - Y_R| + t_C|Z_C - Y_C|$$

$$F_{IA} = p_I|Z_I - Y_I| + t_A|Z_A - Y_A|$$

$$\frac{D_{RC}}{D_{IA}} = \frac{F_{RC}}{F_{IA}}e^{-Gt}$$

where

Z_R is the Z score of the roman state

Z_C is the Z score of the christian state

Z_I is the Z score of the islamic state

Z_A is the Z score of the automono state

Y_R is the Y score of the roman state

Y_C is the Y score of the christian state

Y_I is the Y score of the islamic state

Y_A is the Y score of the automono state

p_R is the co-efficient of **technology production** of the roman state

t_C is the co-efficient of **soldier training** of the christian state

p_I is the co-efficient of **technology production** of the islamic state

t_A is the co-efficient of **soldier training** of the automono state

D_{RC} is the number of deaths of militaric individuals of the romano-christian states

D_{IA} is the number of deaths of militaric individuals of the islamic-automono states

G is the **gold rate**

t is time since start of the war of constantinopole

The End

Radhey Radhey!

Soumadeep Ghosh

Kolkata, India

Govinda go vinda, Govinda go vinda!

Soumadeep Ghosh

Kolkata, India

The correct way to worship the warlord

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the correct way to worship the warlord. The paper ends with "The End"

Introduction

Knowing the correct way to worship the warlord can make a difference in the outcome of wars fought by an economy. In this paper, I describe the correct way to worship the warlord.

The warlord

The warlord is known by many names in various economies but the two most common names are Kartik and Kratos.

The correct way to worship the warlord

The correct way to worship the warlord is to throw an idol of His likeness into the house of a family without a child.

The warlord is said to descend into the womb of the woman of the house as her child and is expected to join the military for training and advisory.

The End

The story of afrodeity

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the story of afrodeity. The paper ends with "The End"

Introduction

Having read the hindu scriptures, afrodeity sought communion with the gods. In this paper, I describe the story of afrodeity.

Obtaining the boon from krishna

Afrodeity prayed to krishna in order to obtain communion with him. However, as krishna was already married to kalki, he refused, but pleased with the worship by afrodeity, krishna bestowed the boon that anyone she would lay her eyes on would fall in love with her.

Afrodeity's scheme

Encouraged by the result of worship of krishna, afrodeity instructed her devotees to throw an idol of Kratos in her own house in order to seek communion with the warlord. True to the scriptures, Kratos impregnated her with three sons named Kotumba, Kobile and Kartoum.

The result of afrodeity's scheme

The three sons of afrodeity, having been born from the seed of the warlord inherited the properties of the warlord. Meanwhile, other African women went on carrying out afrodeity's scheme to their own pleasure seeking communion with the sons of the warlord.

What you see today

Thus, the continent of Africa was populated by the progeny of the warlord and you see many states in Africa led by warlords today.

The End

A model of the war of baghdad

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe a model of the war of baghdad based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

The war of baghdad is the fifth of the classical wars that will be fought in the world. In this paper, I describe a model of the war of baghdad based on the Y and Z scores of the states.

The war of baghdad

The war of baghdad is defined as a war between the american and the islamic states using companies.

The model

The model of the war of baghdad is given by the following equations:

$$F_A = p_A|Z_A - Y_A| + t_A|Z_A - Y_A|$$

$$F_I = p_I|Z_I - Y_I| + t_I|Z_I - Y_I|$$

$$\frac{D_A}{D_I} = \frac{F_A}{F_I}e^{-Ot}$$

where

Z_A is the Z score of the american state

Z_I is the Z score of the islamic state

Y_A is the Y score of the american state

Y_I is the Y score of the islamic state

p_A is the co-efficient of **technology production** of the american state

t_A is the co-efficient of **soldier training** of the american state

p_I is the co-efficient of **technology production** of the islamic state

t_I is the co-efficient of **soldier training** of the islamic state

D_A is the number of deaths of militaric individuals of the american state

D_I is the number of deaths of militaric individuals of the islamic state

O is the **oil rate**

t is time since start of the war of baghdad

The End

The Ghosh probability density function

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the Ghosh probability density function f(x) which is never 1 for any real x. The paper ends with "The End"

Introduction

It is often desired to have a probability density function which is never 1 for any real x. In this paper, I describe the Ghosh probability density function f(x) which is never 1 for any real x.

The Ghosh probability density function

Define $f(x) = \begin{cases} \frac{\cos\left(3\pi x^2\right)+\cos(2\pi)}{2\left(\frac{C(\sqrt{6})}{\sqrt{6}}+1\right)} & -1 \leq x \leq 1 \\ 0 & x < -1 \vee x > 1 \end{cases}$

where

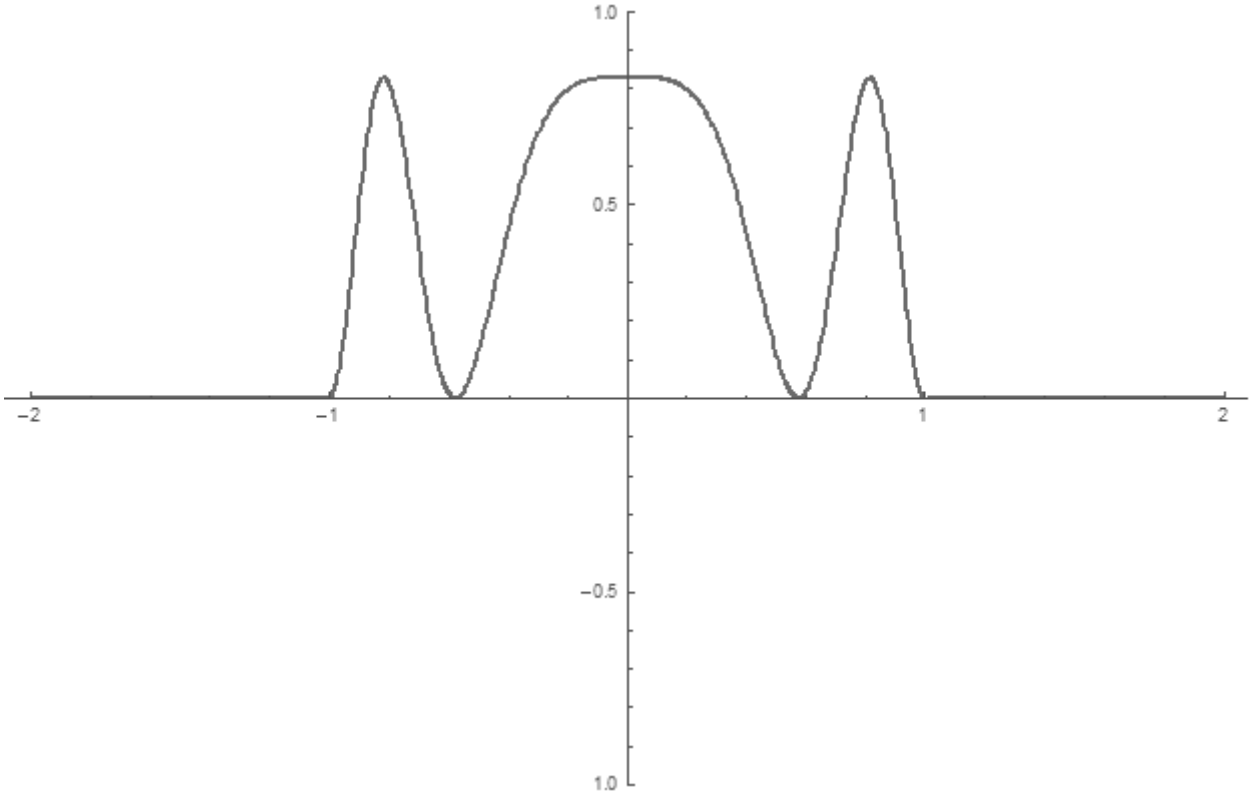
$C(x) = \int_0^x cos(\pi t^2/2)dt$ is the FresnelC function.

Then

1. $0 \leq f(x) < 1$ for all real x.
2. $\int_{-\infty}^{\infty} f(x)dx = 1$

Thus f(x) is a probability density function which is never 1 for any real x.

Plot of the Ghosh probability density function



The End

The Mahaloy probability density function

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the Mahaloy probability density function f(x) which is never 1 for any real x. The paper ends with "The End"

Introduction

It is often desired to have a probability density function which is never 1 for any real x. In this paper, I describe the Mahaloy probability density function f(x) which is never 1 for any real x.

The Mahaloy probability density function

$$\text{Define } f(x) = \begin{cases} \frac{\left|\operatorname{sinc}\left(8x^2\right)\right|}{\frac{1}{4}\left(-\sin(8)-8C(2)\sqrt{\pi}+8C\left(\sqrt{2}\right)\sqrt{\pi}+4C\left(\frac{4}{\sqrt{\pi}}\right)\sqrt{\pi}\right)} & -1 \leq x \leq 1 \\ 0 & x < -1 \vee x > 1 \end{cases}$$

where

$sinc(x)$ is the sinc function.

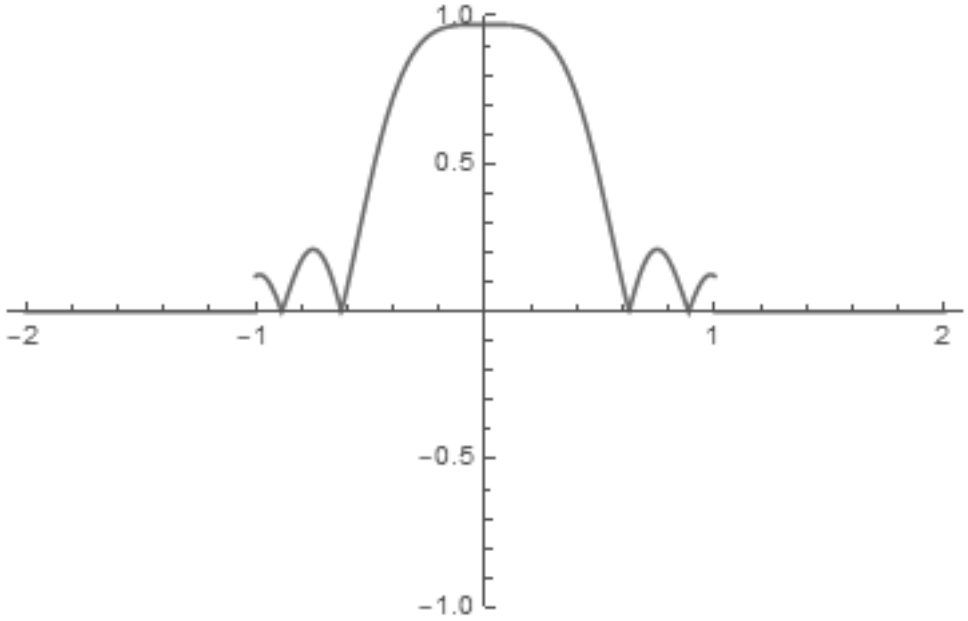
$C(x) = \int_0^x cos(\pi t^2/2)dt$ is the FresnelC function.

Then

1. $0 \leq f(x) < 1$ for all real x.
2. $\int_{-\infty}^{\infty} f(x)dx = 1$

Thus f(x) is a probability density function which is never 1 for any real x.

Plot of the Mahaloy probability density function



The End

The Madras probability density function

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the Madras probability density function f(x) which is never 1 for any real x. The paper ends with "The End"

Introduction

It is often desired to have a probability density function which is never 1 for any real x. In this paper, I describe the Madras probability density function f(x) which is never 1 for any real x.

The Madras probability density function

Define $f(x) = \begin{cases} \frac{\left|\sin(\pi x^2)\right|}{\sqrt{2}S(\sqrt{2})} & -1 \leq x \leq 1 \\ 0 & x < -1 \vee x > 1 \end{cases}$

where

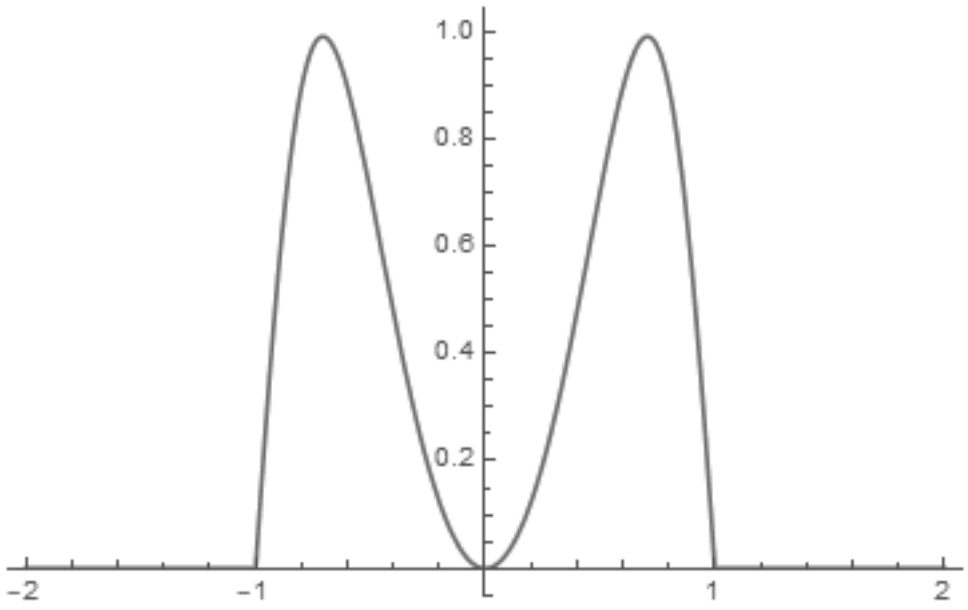
$S(x) = \int_0^x sin(\pi t^2/2)dt$ is the FresnelS function.

Then

1. $0 \leq f(x) < 1$ for all real x.
2. $\int_{-\infty}^{\infty} f(x)dx = 1$

Thus f(x) is a probability density function which is never 1 for any real x.

Plot of the Madras probability density function



The End

The Temple bell probability density function

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the Temple bell probability density function f(x) which is never 1 for any real x. The paper ends with "The End"

Introduction

It is often desired to have a probability density function which is never 1 for any real x. In this paper, I describe the Temple bell probability density function f(x) which is never 1 for any real x.

The Temple bell probability density function

Define $f(x) = \frac{\exp(-x^4)}{2\Gamma(\frac{5}{4})}$

where

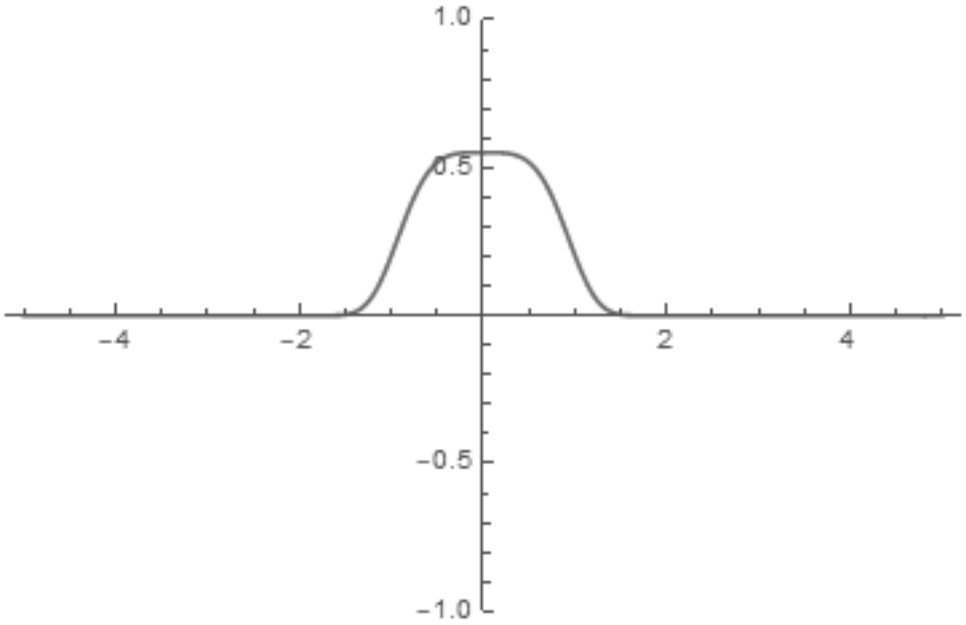
$\Gamma(x) = \int_0^x t^{x-1} \exp(-t)dt$ is the Gamma function.

Then

1. $0 \leq f(x) < 1$ for all real x.
2. $\int_{-\infty}^{\infty} f(x)dx = 1$

Thus f(x) is a probability density function which is never 1 for any real x.

Plot of the Temple bell probability density function



The End

The Rocket cone probability density function

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the Rocket cone probability density function f(x) which is never 1 for any real x. The paper ends with "The End"

Introduction

It is often desired to have a probability density function which is never 1 for any real x. In this paper, I describe the Rocket cone probability density function f(x) which is never 1 for any real x.

The Rocket cone probability density function

Define $f(x) = \begin{cases} \frac{\exp(-x^2)}{\sqrt{\pi}\text{erf}(1)} & -1 \leq x \leq 1 \\ 0 & x < -1 \vee x > 1 \end{cases}$

where

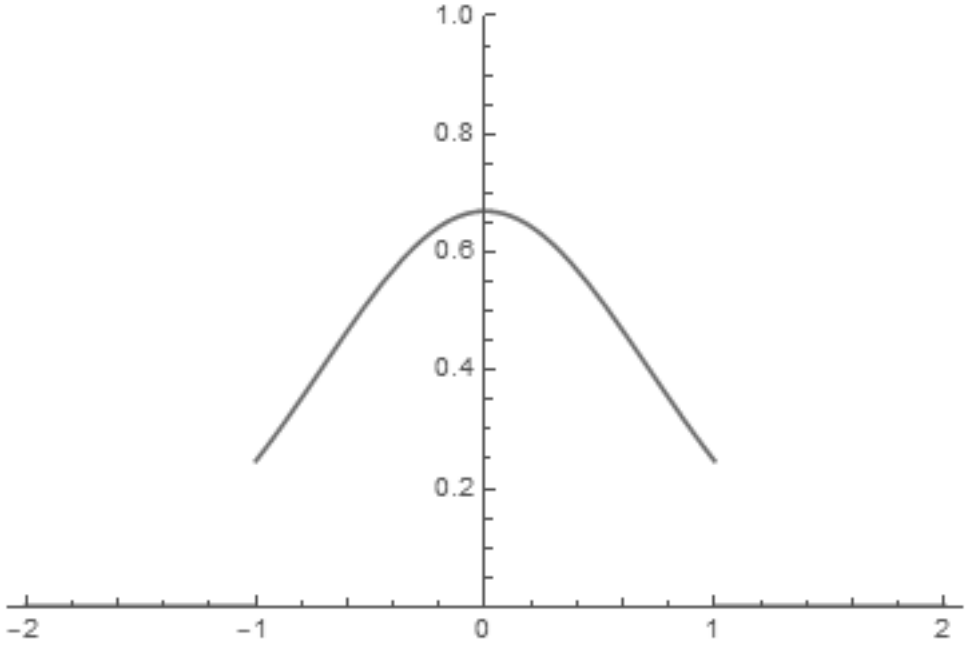
$erf(x) = \frac{2}{\sqrt{\pi}} \int_0^x e^{-t^2} dt$ is the error function.

Then

1. $0 \leq f(x) < 1$ for all real x.
2. $\int_{-\infty}^{\infty} f(x)dx = 1$

Thus f(x) is a probability density function which is never 1 for any real x.

Plot of the Rocket cone probability density function



The End

The Cup probability density function

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the Cup probability density function f(x). The paper ends with "The End"

Introduction

In this paper, I describe the Cup probability density function f(x).

The Cup probability density function

Define $f(x) = \begin{cases} \frac{\exp(x^2)}{\sqrt{\pi} erfi(1)} & -1 \leq x \leq 1 \\ 0 & x < -1 \vee x > 1 \end{cases}$

where

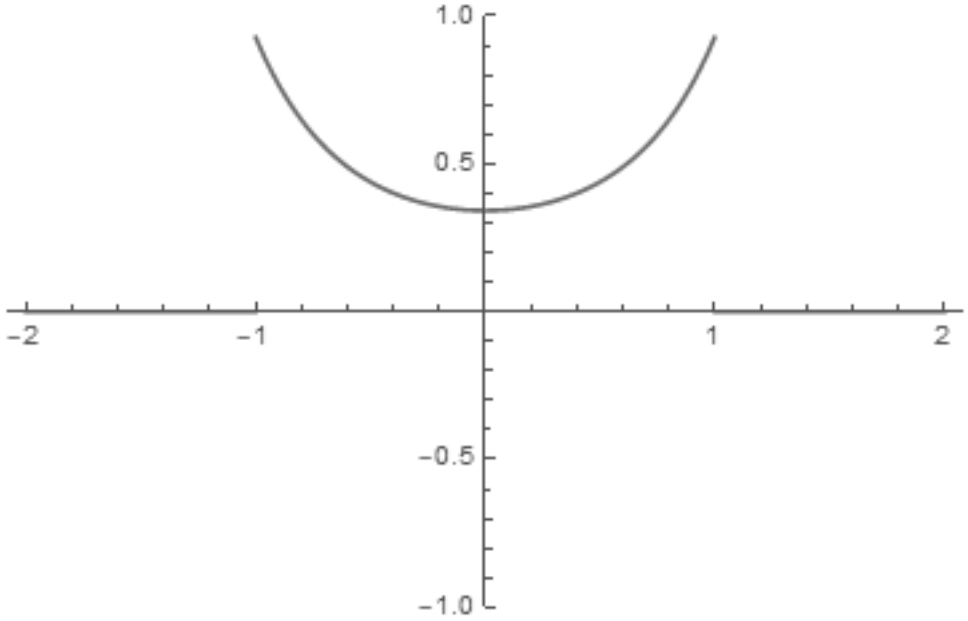
$erfi(x) = \frac{erf(ix)}{i}$ is the imaginary error function.

Then

1. $0 \leq f(x) \leq 1$ for all real x.
2. $\int_{-\infty}^{\infty} f(x)dx = 1$

Thus f(x) is a probability density function.

Plot of the Cup probability density function



The End

Mathematical central geomancy

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the mathematical models to use centrally in economies to bring good luck. The paper ends with "The End"

Introduction

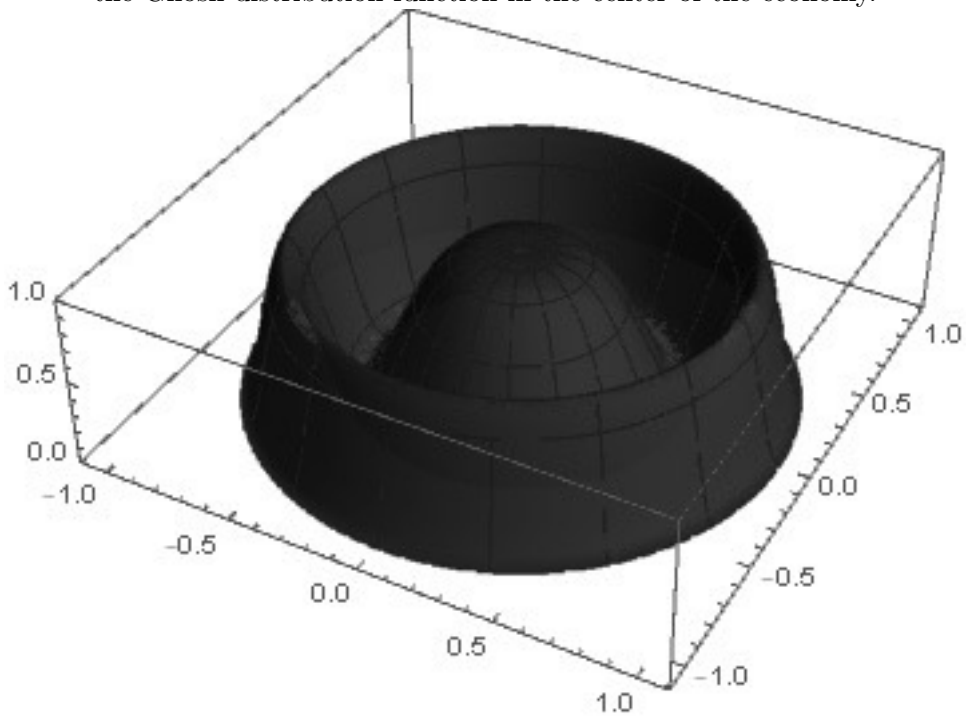
Geomancy is defined as the art of arranging buildings in a good and lucky position. **Mathematical geomancy** is geomancy with the use of mathematical models. **Central geomancy** is geomancy applied in the center of the economy. In this paper, I describe the mathematical models to use centrally in economies to bring good luck.

Why is mathematical central geomancy necessary?

Mathematical central geomancy is necessary in an economy to **prevent** the economy from being destroyed to create the philosopher's stone.

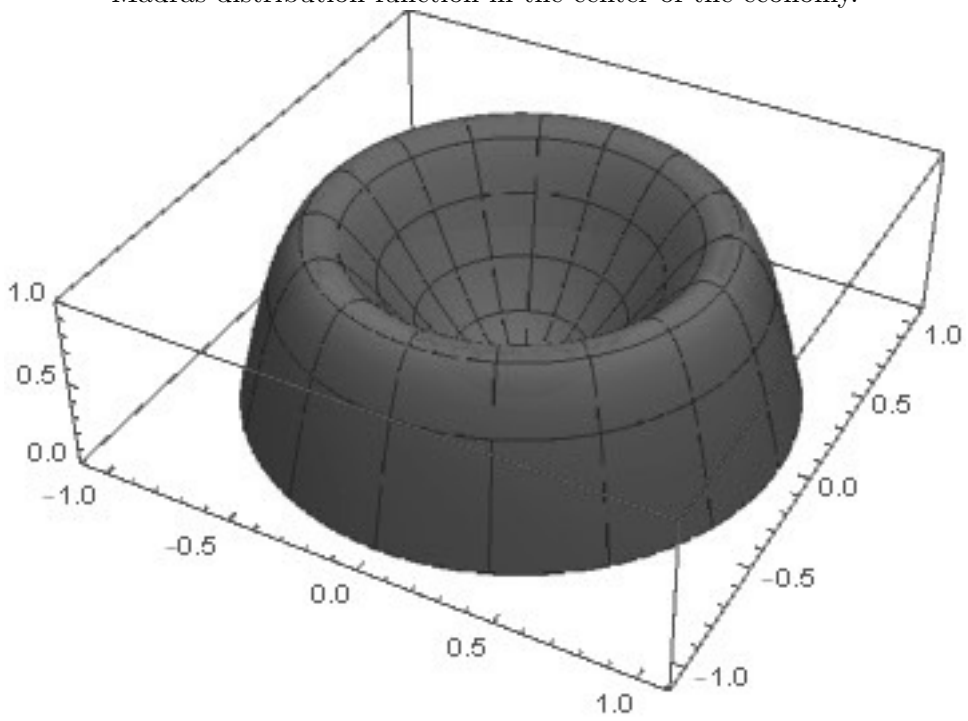
Mathematical central geomancy in a capitalist/financial economy

For capitalist/financial economies, I recommend the placement of a solid of revolution of the Ghosh distribution function in the center of the economy.



Mathematical central geomancy in a communist economy

For communist economies, I recommend the placement of a solid of revolution of the Madras distribution function in the center of the economy.



The End

The ingredients of the white philosopher's stone

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe the ingredients of the white philosopher's stone as revealed to me by Lord Krishna Himself. The paper ends with "The End"

Introduction

The white philosopher's stone is the most powerful philosopher's stone that can be produced but also the most difficult philosopher's stone to produce. In this paper, I describe the ingredients of the white philosopher's stone as revealed to me by Lord Krishna Himself.

The ingredients of the white philosopher's stone

The ingredients of the white philosopher's stone are the following:

- White milk from a white cow
- White snow from the Himalayas
- White semen of a righteous white man

The End

Two models of academic exchange

Soumadeep Ghosh

Kolkata, India

Abstract In this paper, I describe two models of academic exchange based on the Y and Z scores of the states. The paper ends with "The End"

Introduction

In a previous paper, I have described the calculation of a Y score to measure militaric outcomes. In this paper, I describe two models of academic exchange based on the Y and Z scores of the states.

Academic exchange

Academic exchange is defined as a large period of stability in the relations among the academies between two states.

The model of peace-time academic exchange

The model of peace-time academic exchange is given by the following equations:

$$K_A = a_A|Z_A - Y_A|$$

$$K_B = a_B|Z_B - Y_B|$$

$$\frac{K_A}{K_B} = 1$$

where

K_A is the amount of knowledge of state A

K_B is the amount of knowledge of state B

Y_A is the Y score of state A assigned by state A

Y_B is the Y score of state B assigned by state B

Z_A is the Z score of state A assigned by state B

Z_B is the Z score of state B assigned by state A

a_A is the co-efficient of **academic training** of state A

a_B is the co-efficient of **academic training** of state B

The model of war-time academic exchange

The model of war-time academic exchange is given by the following equations:

$$K_A = a_A|Z_A - Y_A|$$

$$K_B = a_B|Z_B - Y_B|$$

$$\frac{K_A}{K_B} = \frac{a_A}{a_B}e^{-Bt}$$

where

K_A is the amount of knowledge of state A

K_B is the amount of knowledge of state B

Y_A is the Y score of state A assigned by state A

Y_B is the Y score of state B assigned by state B

Z_A is the Z score of state A assigned by state B

Z_B is the Z score of state B assigned by state A

a_A is the co-efficient of **academic training** of state A

a_B is the co-efficient of **academic training** of state B

B is the **balance rate** of the exchange rate stabilization

t is time since start of exchange rate stabilization

The End

Gender

Soumadeep Ghosh

Kolkata, India

In this paper, I describe the four genders in existence. The paper ends with "The End"

Introduction

There are various theories of gender. But in this paper, I describe the **reality** of gender as percieved by me, **the representative agent of economics**.

Hormones

A **hormone** is a bio-chemical that is produced by the reproductive organ(s) of an individual. There exist exactly two classes of hormones - **masculine** hormones and **feminine** hormones. An example of a masculine hormone is **testosterone**, produced in the **testicle(s)**, if present, of an individual. Examples of feminine hormones are **estrogen**. **progesterone** and **oxytocin**, produced in the **ovar(ies)**, if present, of an individual.

The four genders

There are exactly four **genders** depending on the combination of hormones present in the bloodstream of an individual:

1. **Pure male**: An individual whose bloodstream has only masculine hormone(s) **and no** feminine hormone.
2. **Pure female**: An individual whose bloodstream has only feminine hormone(s) **and no** masculine hormone.
3. **Neuter**: An individual whose bloodstream has **neither** masculine hormones **nor** feminine hormones.
4. **Bi-gender**: An individual whose bloodstream has both masculine hormone(s) **and** feminine hormone(s).

The End

The equation of psychology

Soumadeep Ghosh

Kolkata, India

In this paper, I describe the equation of psychology. The paper ends with "The End"

Introduction

There are various theories of psychology. But in this paper, I describe the **equation of psychology** as percieved by me, **the representative agent of economics**.

The equation of psychology

The equation of psychology is

$$P = \psi + v + p$$

where
P is the population in the economy
ψ is the number of psychologists in the economy
v is the number of visionaries in the economy
p is the number of psychopaths in the economy

The End

Configuration of the Kali temple

Soumadeep Ghosh

Kolkata, India

Abstract

In this paper, I describe the configuration of the Kali temple whose construction is **necessary** to end the Kali yuga early. The paper ends with "The End"

Location

A Kali temple must be constructed in Kurukshetra, India.

Material

The temple must be constructed with stone that has been cut in India.

Outer shape

The temple must be a five-sided polygon with four consecutive sides in the ratio of 1:2:4:8. The angles between those sides must be equal to one-third of a full circle. The final side joins the final vertex with the initial vertex.

Inner cirle

The temple must have a circle centred on the centroid of the polygon. The diameter of this circle should be equal to the shortest side of the temple.

Inner square

The temple must have a square centred on the centre of the inner circle with veertices pointing towards the four directions - east, west, north and south.

Double-doors

The temple must have only one set of double-doors that is both the entrance and also the exit. The double-doors must be on the smallest side of the temple.

Orientation

The temple must be oriented about its centroid such that the double-doors face the Kaaba.

Size

The temple must be large enough so that its inner square is atleast 6 feet in size.

Colours

The sides of the temple must be coloured alternately with white and black with the side being coloured white. The inner circle must be coloured black. The inner square must be coloured white. The inside of the temple must be coloured white.

Entrance fee

Money **should not** be charged for entry into this temple.

Announcement

The purpose of the construction of this temple, the start of the construction of this temple and the finish of the construction of this temple must all be announced in India.

The End

Professy for dravidians

Soumadeep Ghosh

Kolkata, India

Abstract

In this paper, I describe economic developments that are **necessary** and will happen for economic progress and political stability in dravidian economies. The paper ends with "The End"

Political developments

Since the demise of a major female dravidian leader, there is competition and a leadership vacuum in a major dravidian economy. To determine its new leadership, dravidian societies in this economy are reaching out to several other major economies for knowledge of possible synergies. This process will go on for some time and a decision will be made before 2020.

International relations

Dravidian economies have and will continue to benefit from production of technology with international partners. Russia, France, Israel and Germany are among the major nations that will be courted for joint production of technology.

Socio-economic developments

Dravidian societies are highly varied in socio-economic customs. After a stable leadership emerges, there will be demand for a pioneering work that synthesizes and describes major non-secret dravidian socio-economic concepts and customs in a concise document. This document will function as the main introduction for outsiders to dravidian societies. Production of this document is necessary for smooth induction of individuals into dravidian societies, in order for them to produce new technologies in these societies.

The End

On discretionary monetary expansion in a republic

Soumadeep Ghosh

Kolkata, India

In this paper, I describe a simple method of discretionary monetary expansion in a republic. The paper ends with "The End"

Introduction

There comes a time when a republic of states needs to engage in discretionary monetary expansion. After all, every constituent state in a republic has different endowments including natural resources, different geopolitical considerations, different risk profiles and different political environments. In addition, payoffs need to be made after the **game of promises** is concluded in the political space.

In this paper, I describe a simple method of discretionary monetary expansion.

The stage for discretionary monetary expansion

We have a republic of n states each with different GDP G_i and growth rates g_i. The GDP-weighted growth rate given by

$$g = \frac{\sum_{i=1}^{n} G_i g_i}{\sum_{i=1}^{n} G_i}$$

is the best estimate of the growth rate of the republic.

The method

Suppose a rate k has been established by regression such that the money supplied to each state in the previous period $m_{i-1} = kT_{i-1}$ where T_{i-1} is the tax revenue collected in the previous period.

The method of discretionary monetary expansion works as follows:

We find a new rate $\bar{k}$ such that $m_i = \bar{k}(T_i + \delta_i)$ where δ_i is the discretionary adjustment for each state decided by governance.

Suppose $k = \bar{k} + \epsilon$

Then

$$m_i = (\bar{k} + \epsilon)T_i = \bar{k}(T_i + \delta_i)$$

Aggregating over all states, we get

$$k - \bar{k} = \epsilon = \bar{k}\frac{\sum_{i=1}^{n} \delta_i}{\sum_{i=1}^{n} T_i}$$

Thus

$$\bar{k} = \frac{k}{1 + \frac{\sum_{i=1}^{n} \delta_i}{\sum_{i=1}^{n} T_i}}$$

The economics of discretionary monetary expansion

The economics of discretionary monetary expansion is strategic in nature. States **lobby** for as high a discretionary adjustment as possible, but high δ_is result in a lower $\bar{k}$. Therefore, it is in the interest of each state to reach a **strategic equilibrium** regarding the value of the discretionary adjustment they negotiate.

The politics of discretionary monetary expansion

In practice, discretionary monetary expansion cannot be achieved without co-operation and understanding between governance in the states of the republic. Moreover, successful discretionary monetary expansion generally requires free access to labor markets in the states. This process allows for **coalition politics** to emerge, which is generally regarded as a healthy compromise between competition and collusion.

Conclusion

Discretionary monetary expansion is a mechanism such that the game of promises made with the states in a republic can be concluded. It is imperative to engage in discretionary monetary expansion whenever the **realpolitik** of the republic demands so.

The End

The utility function of the germanic Fuhrer

Soumadeep Ghosh

Kolkata, India

In this paper, I describe the utility function of the germanic Fuhrer. The paper ends with "The End"

Introduction

The Fuhrer is the representative agent of the germane economy. In this paper, I describe the utility function of the Fuhrer.

The Fuhrer's utility function

The Fuhrer's utility function is given by

$$U(f, U, h, r, e, R) = f + (U(f, U, h, r, e, R))^h + e + r^R$$

where
f is the amount of food the Fuhrer owns
$U(f, U, h, r, e, R)$ is the Fuhrer's utility function
h is the Planck constant
r is the risk-free rate in the germane economy
e is the base of the natural logarithm
R is the coefficient of statistical determination in the germane economy

The End

Demystifying the geographic risk premium and the political risk premium

Soumadeep Ghosh

Kolkata, India

In this paper, I describe closed-form formulae of the geographic risk premium and the political risk premium. The paper ends with "The End"

Introduction

In a previous paper, I've described the calculation of the geographic direction of influence θ_{geo} and the estimate of the direction of geopolitical influence given by the Z-weighted angle Θ. In this paper, I describe closed-form formulae of the geographic risk premium and the political risk premium.

The mathematics of the geographic risk premium and the political risk premium

We have three states - diplomacy, trade and war, denoted by three probabilities p_d, p_t and p_w respectively. We have

$$p_d + p_t + p_w = 1$$

However, exact values of these probabilities are not known and only expected values $\mathrm{E}[p_d]$, $\mathrm{E}[p_t]$ and $\mathrm{E}[p_w]$ are known.

By the linearity of the expectation operator, we have

$$\mathrm{E}[p_d] + \mathrm{E}[p_t] + \mathrm{E}[p_w] = 1$$

This equation allows us to eliminate $\mathrm{E}[p_t]$ since

$$\mathrm{E}[p_t] = 1 - \mathrm{E}[p_d] - \mathrm{E}[p_w]$$

The geographic option (also known as the naive option)

Let $\mathrm{E}[P]$ be the expected price of an option that pays θ_{geo} in the diplomacy state, $\frac{\theta_{geo}+\Theta}{2}$ in the trade state and Θ in the war state.

Then the expected price of the **geographic option** is given by

$$\mathrm{E}[P] = \frac{\theta_{geo}\mathrm{E}[p_d] + \frac{1}{2}(\theta_{geo} + \Theta)(1 - \mathrm{E}[p_d] - \mathrm{E}[p_w]) + \Theta\mathrm{E}[p_w]}{1 + r_f + p_{geo}}$$

where
r_f is the risk-free rate in the economy
p_{geo} is the geographic risk premium

The geopolitical option (also known as the intelligent option or the smart option)

Let $\mathrm{E}[Q]$ be the expected price of an option that pays θ_{geo} in the diplomacy state, $\frac{\theta_{geo}\mathrm{E}[p_d]+\Theta\mathrm{E}[p_w]}{\mathrm{E}[p_d]+\mathrm{E}[p_w]}$ in the trade state and Θ in the war state.

Then the expected price of the **geopolitical option** is given by

$$\mathrm{E}[Q] = \frac{\theta_{geo}\mathrm{E}[p_d] + \frac{(1-\mathrm{E}[p_d]-\mathrm{E}[p_w])(\theta_{geo}\mathrm{E}[p_d]+\Theta\mathrm{E}[p_w])}{\mathrm{E}[p_d]+\mathrm{E}[p_w]} + \Theta\mathrm{E}[p_w]}{1 + r_f + p_{geo} + p_{pol}}$$

where
r_f is the risk-free rate in the economy
p_{geo} is the geographic risk premium
p_{pol} is the political risk premium

Closed-form formulae of the geographic risk premium and the political risk premium

Simple algebraic manipulation of the two equations above gives us

$$p_{geo} = \frac{\theta_{geo}(1 + \mathrm{E}[p_d] - \mathrm{E}[p_w]) + \Theta(1 - \mathrm{E}[p_d] + \mathrm{E}[p_w]) - 2(1 + r_f)\mathrm{E}[P]}{2\mathrm{E}[P]}$$

and

$$p_{pol} = \frac{\theta_{geo}(2\mathrm{E}[P]\mathrm{E}[p_d] - \mathrm{E}[Q](1 + \cdots + 2\mathrm{E}[P]\mathrm{E}[p_w])}{2\mathrm{E}[P]\mathrm{E}[Q](\mathrm{E}[p_d] + \mathrm{E}[p_w])}$$

Notes

1. Note that the geographic risk premium and the political risk premium depend on **expected** prices and not actual prices.

2. Note that we can, alternatively, find closed-form formulae for $\mathrm{E}[p_d]$ and $\mathrm{E}[p_w]$, i.e., the **expected** probability of diplomacy and the **expected** probability of war.

The End

Demystifying the monetary risk premium

Soumadeep Ghosh

Kolkata, India

In this paper, I describe the closed-form formula of the monetary risk premium. The paper ends with "The End"

Introduction

The **monetary risk premium** is the most common risk premium in existence but many individuals don't understand it. In this paper, I describe the closed-form formula of the monetary risk premium.

The mathematics of the monetary risk premium

We have three states - increase in the money supply, no change in the money supply and decrease in the money supply, denoted by three probabilities $0 \leq p_i, p_n, p_d \leq 1$ respectively. We have

$$p_i + p_n + p_d = 1$$

This equation allows us to eliminate p_n since

$$p_n = 1 - p_i - p_d$$

The money supply increases from M to $M + m_i$ with probability p_i or remains at M with probability p_n or decreases from M to $M - m_d$ with probability p_d where $m_i > 0$ and $m_d > 0$

Then we have

$$M(1 + r_f + p_m) = p_i(M + m_i) + (1 - p_i - p_d)M + p_d(M - m_d)$$

which gives us

$$p_m = \frac{p_i m_i - p_d m_d}{M} - r_f$$

where

r_f is the risk-free rate in the economy

p_m is the monetary risk premium

Notes

1. Note that the monetary risk premium depends on the probability of increase in money supply and the probability of decrease in money supply, but **not** on the probability of no change in money supply.
2. Note that the monetary risk premium depends on the existing money supply, the increase in money supply **and** the decrease in money supply.
3. Note that the monetary risk premium depends on the risk-free rate in the economy.

The End

The Kochic parisian wonder

Soumadeep Ghosh

Kolkata, India

In this paper, I describe the Kochic parisian wonder for the parisian economy. The paper ends with "The End"

Introduction

The construction of the Kochic parisian wonder will be the crowning achievement of the parisian economy. In this paper, I describe the Kochic parisian wonder for the parisian economy.

The legend

In the top view figure that follows, black denotes museums and white denotes artists.

The Kochic parisian wonder

Figure 1: The Kochic parisian wonder

The End

Sexuality

Soumadeep Ghosh

Kolkata, India

In this paper, I describe the three sexualities in existence. The paper ends with "The End"

Introduction

There are various theories of sexuality. But in this paper, I describe the **reality** of sexuality as percieved by me, **the representative agent of economics**.

The three sexualities

There are exactly three **sexualities** depending on the sexual experience of an individual:

1. **Virgin**: An individual with no sexual experience.
2. **Homosexual**: An individual all of whose sexual experiences have been with different individual(s) **all** of the same gender as the individual.
3. **Heterosexual**: An individual who is **neither** a virgin **nor** a homosexual.

The legality of the sexualities

Being a virgin is **legal**.
Being a heterosexual is **legal**.
Being a homosexual is **illegal** in some states if the individual in question is a **pure male**.

The End

Narendra Damodardas Modi's TREASON

The complete betrayal of the Indian people by the Bharatiya Janta Party

Soumadeep Ghosh

Kolkata, India

In this paper, I describe the TREASON against India committed by Narendra Damodardas Modi and the complete betrayal of the Indian people by the Bharatiya Janta Party. The paper ends with "The End"

Introduction

After initial doubts regarding the loyalty of Narendra Damodardas Modi to the people of India were raised by the oldest Indian political coalition, namely, the **Indian National Congress**, investigations conducted by various branches of the Indian investigative system have made one fact absolutely clear:

The Prime Minster of India, Narendra Damodardas Modi has, indeed, committed TREASON against India.

In this paper, I describe the implications and logical questions that follow this fact.

The testimony of Rahul Gandhi against Narendra Damodardas Modi

The testimony of the Indian Member of Parliament Mr. Rahul Gandhi has been telecast and viewed by a number of individuals, both in India and abroad, on popular video-sharing websites on the Internet. One of the numerous links is posted here for reference:

`https://www.youtube.com/watch?v=urCBtkx0fgE`

The complete betrayal of the Indian people by the BJP

The **Bharatiya Janta Party**, the right-wing fascist political coalition that Narendra Damodardas Modi belongs to, has lost all relevance to the Indian people.

As of this writing, **death squads**, initiated by the remaining Indian political coalitions, are **hunting down** all known members of the BJP in every constituent state of the Republic of India because Narendra Damodardas Modi has not only betrayed his own party, but the entire people of India.

What's the Indian parliament doing now?!

As of this writing, there's **complete confusion and chaos** in the Indian parliament, because each and every member's loyalty to India is being questioned.

How could it be that one criminal, Narendra Damodardas Modi, got away with TREASON in spite of the system of checks and balances that the Indian parliament claims exists in India?!

Why hasn't the President of India dissolved the Parliament yet?!

As of this writing, even the loyalty of the current President of India, Ram Nath Kovind, to India is being questioned.

Why has Ram Nath Kovind not dissolved the Indian Parliament and called for re-elections in spite of abundant evidence that exists against his so-called Prime Minister and the **complete failure** of the Indian parliament in addressing the core issues surrounding this TREASON by the Prime Minister of India?

The End

The Krishnaic pentaflake wonder

Soumadeep Ghosh

Kolkata, India

In this paper, I describe the Krishnaic pentaflake wonder for the artistic economy. The paper ends with "The End"

Introduction

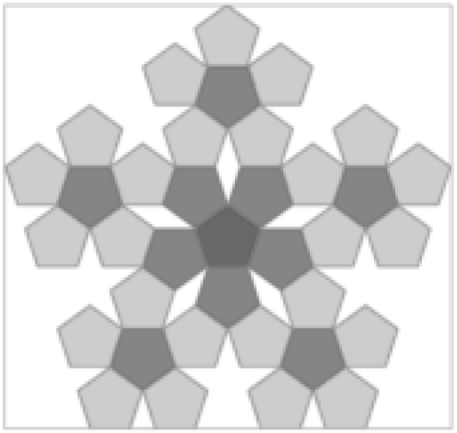
The construction of the Krishnaic pentaflake wonder will be the crowning achievement of the artistic economy. In this paper, I describe the Krishnaic pentaflakewonder for the artistic economy.

The legend

In the top view figure that follows, orange denotes walls, blue denotes reservoirs, green denotes gardens and red denotes temple.

The Krishnaic pentaflake wonder

Figure 1: The Krishnaic pentaflake wonder



The End

The inflation risk premium can be zero at all points in time

Soumadeep Ghosh

Kolkata, India

In this paper, I describe how the inflation risk premium can be zero at all points in time. The paper ends with "The End"

Introduction

The inflation risk premium is defined as the premium needed to hold an asset above the risk-free rate plus the expected inflation. Mathematically, we have

$$r_A(t) = r_f(t) + \mathrm{E}[i(t)] + p_i(t)$$

where
$r_A(t)$ is the return on the asset as a function of time
$r_f(t)$ is the risk-free rate as a function of time
$\mathrm{E}[i(t)]$ is the expected inflation as a function of time
$p_i(t)$ is the inflaton risk premium as a function of time

The inflation risk premium can be zero at all points in time

The inflation risk premium can be zero at all points in time, if the return on the asset, the risk-free rate and the expected inflation have specific functional forms described below:

$$r_A(t) = \frac{1}{\sqrt{2\pi}\sigma} e^{-\frac{(t-\mu)^2}{2\sigma^2}}$$

$$r_f(t) = \begin{cases} 0 & t \leq 0 \\ \frac{2\theta e^{-\frac{\theta^2 t^2}{\pi}}}{\pi} & t > 0 \end{cases}$$

$$E[i(t)] = e^{-Ft} \begin{cases} Ft - e^{Ft}(e^{-Ft}Ft - \frac{e^{-\frac{(t-\mu)^2}{2\sigma^2}}}{\sqrt{2\pi}\sigma}) & t \leq 0 \\ Ft - e^{Ft}(e^{-Ft}Ft + \frac{2e^{-\frac{t^2\theta^2}{\pi}}\theta}{\pi} - \frac{e^{-\frac{(t-\mu)^2}{2\sigma^2}}}{\sqrt{2\pi}\sigma}) & t > 0 \end{cases}$$

where μ, σ, θ and F are real constants and t is time.
Then we have

$$p_i(t) = r_A(t) - r_f(t) - \mathrm{E}[i(t)] = 0$$

The End