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Markets and Organizations

Individualism and Economic Theory

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Abstract:

Economic theory depicts markets and organizations as opposite allocation mechanisms. Market allocation is based on mobility and organization on instruction. The paper argues that markets and organizations are complements in economies that grow through innovation. Diversity of organizations lies at the heart of innovation and gives factor mobility real meaning. This differs from perfect competition and principal agent theory wherein firms behave identically. Individualism spurs innovation, because it allows the adoption of different opinions on investment projects. Investment outcomes will differ from expectation, but will strike stable expectation equilibrium, if diversity of opinion prevails. Collective opinion, by contrast, arrests productivity growth and causes booms and busts. The rise of individualism in late medieval England and the concept of the individualized corporation in our days are discussed. The effects of collective opinion on financial markets are sketched.

Markets and Organizations

Individualism and Economic Theory

1. Introduction

Economic theory treats markets and organizations as two different ways to allocate production factors. Labor is assumed to be either directed by markets or by instructions from superiors within organizations (Coase, 1937). Markets provide autonomy, if people can found a firm and follow their own plan. Organizations, by contrast, direct employee behavior in ways they consider fit for their purposes. Markets require spot contracts for each transaction, whereas organizations employ persons on long term contracts. These differences between market and organization stand out in economic organization literature. Markets are assumed to support individualism, since every company owner can pursue his own goals. Organizations, by contrast, prompt collective behavior that is prescribed by authority. But, we can also argue that markets stimulate collectivism, since markets group individuals together in aggregates like workers and capital owners that receive identical prices for their services. The question, therefore, arises whether markets allow people to stand out as individuals or let them disappear in groups?

Market wages are based on the idea that people will move to another employer, if they are paid below market wages. But, people will not move, if all organizations value people identically. Mobility only becomes effective, when organizations value people differently. Such individualization occurs, when people are no longer determined by group membership but by individual characteristics. Economic theory, however, cannot easily figure the effects of individualization on market outcomes. Finance theory can better capture the effects of individualized and collective opinion on markets.

Historians have clarified the relationship between contract and mobility in market economies. The possibility to bequeath possessions to non family members in medieval England freed people from traditional group ties and allowed them to make choices of their own (Macfarlane, 1978).

Modern management theory has emphasized individualization as a tenet of corporations in dynamic economies (Ghoshal & Bartlett, 1997).

But, individuals are largely invisible in neoclassical economic theory, wherein firms of equal size respond identically to exogenous shocks.

Schumpeter, however, put individuals central in his innovation theory, wherein entrepreneurs move the economy out of equilibrium and towards a new one at a higher level of productivity. Stagnation, however, has been more characteristic of human history than progress. Schumpeter explained progress by the innate desire of people to improve their social

position. However, these desires were frustrated in most epochs or wrought havoc, when people took to war to achieve their goals.

2. Market Competition as an Exogenous Force

Market prices indicate the value of a product, employee or capital good. Market valuation is anonymous, if it arises through valuations made by numerous suppliers and buyers. Nobody in particular can be held accountable for the depreciation of asset values or sinking real wages caused by changes of supply and demand. Markets seem to operate like forces of nature; out of individual control. Perfect competition theory depicts how equilibrium is attained on spot markets by the interplay of multitudes of suppliers and buyers. Global markets for commodities like wheat fit this picture. The world wheat market brings wheat from various sources together to meet manifold demand. The fate of suppliers is interdependent. Expanding demand increases price for all suppliers and vice versa.

People are also grouped together to obtain market prices for their labor. We can think of markets of skilled and unskilled labor. A person's value is not determined by individual characteristics, but by what it has in common with other people that belong to the same group. Spot market prices for commodities and labor are based on assumed homogeneity of products and people. Spot markets also assume the absence of long term contracts. People can be hired and fired by the day. We can think of markets for day labor during the harvest season to fit this picture. Supply comes from non skilled labor; demand from farmers. Equilibrium is struck, when demand equals supply. Each worker receives the same wage. It is not guaranteed that the wage is sufficient for a family to live on. However, the employer is not responsible for the fate of his workers. Group membership is essential to a person's valuation, which raises the question how group formation occurs? Does supply only encompass unskilled labor in a certain village; a country; the whole world? What is the demand for labor composed of? Are these the farmers in a certain region; the whole country? The size of the market determines to what extent people's fates become identical.

People can improve themselves, if they can leave their initial group and move to another; from unskilled to skilled workers; from landless to landholding people. Individual ascent is related to occupational and geographical mobility. It assumes that individuals can make decisions that diverge from tradition and which are also not imposed on them by the state. The concept of individualism refers to *the rights and privileges of the individual as against the wider group or the state* (Macfarlane, 1978, 5). Macfarlane uses the concept to characterize medieval English

inheritance laws, wherein male primogeniture and other family obligations could be discarded. Women had equal rights to inherit as men. Individualism thus refers to contractual instead of traditional property rights. People could bequeath their possessions to persons they thought deserved it most. Leaving tradition behind prompted people to make individual assessments of people and assets. This seems to oppose market valuation. However, financial markets are involved in individual valuations of people and their plans. Financial markets are about views of future states and can only achieve equilibrium, if investors' views differ.

Markets and organizations feature in economic theory in different ways. We distinguish between 3 different models. Market equilibrium and the incentives to innovate are sketched for these 3 models.

1. *The Perfect Competition Model*
2. *The Principal Agent Model*
3. *The Model of the Innovative Firm*

3. Firms and Markets in Perfect Competition

The perfect competition model draws a picture of people and organizations that are completely dependent on anonymous market forces. Firms in the pc model are assumed to be numerous and of small size. Small size emanates from small fixed costs and declining marginal productivity of labor. Firms do exist in perfect competition theory, but long term labor contracts are absent. Workers are completely interchangeable in this model. Firms hire workers, who are put to work with equipment of a fixed size in the short run. Each consecutive worker is assumed to become less productive, since capital is spread more widely. The firm stops hiring after the value of the produce of the last hired worker equals wages. Each worker is paid the same wage, which is determined by supply and demand. Wages are low, if labor is in ample supply and increase, if labor is relatively scarce. Producer surplus consists of the value created by non marginal workers. Producer surplus is higher, if wages are lower and more workers are hired. Assume that the first worker produces 10 units, the second 9 units per day and so on. Each unit of output sells for a price of 10, while the wage rate is 50 per day. The firm will hire 6 workers, since the value of the produce of the 6th worker is 50, which equals his wage. Producer surplus is $50+40+30+20+10 = 150$ at this wage and product price (see table 1). The producer surplus would shrink to 100 if wage was 60 and 5 workers were employed. It would increase till 210 if wages decreased till 40 and 7 workers were employed.

Table 1

Total Value Added, wage costs and Producer Surplus (PS) in the Short Run

$P = 10, w = 50$

Workers	Value added	Wage costs	PS
1	100	50	50
2	190	100	90
3	270	150	120
4	340	200	140
5	400	250	150
6	450	300	150
7	490	350	140

The labor share of valued added would drop from 75 percent, when 5 workers were employed at wage 60; till 66,67 percent, if 6 workers were employed at wage 50 and to 57 percent, if 7 workers were employed at wage 40. More numerous labor thus lowers wage rates and increases producer surplus both absolutely and as a share of value added.

Long term differs from short term equilibrium, because no excess profits are incurred in long term equilibrium. Long term equilibrium is reached when average total costs of the efficient firm are equal to price. Long term is identical to short term equilibrium at a wage of 50, if fixed costs are 150. The efficient firm would employ 6 employees and incurs producer surplus of 150, which equals its fixed costs (See table 2). Average costs are at a minimum of 10 at this point.

Table 2

Total value added; wage cost, total costs and average total costs (atc)

$P = 10, w = 50, F = 150$

Employees	Value added	wage costs	total costs	atc
1	100	50	200	20
2	190	100	250	13,2
3	270	150	300	11,1
4	340	200	350	10,3
5	400	250	400	10
6	450	300	450	10
7	490	350	500	10,2

Firms do not make profits in long run equilibrium. A wage decrease would entail short run profits, but these would disappear in long run equilibrium. Producer surplus increases from 150 to 210, if wages decline from 50 till 40. But, new entry would increase output and reduces price. Price would be reduced to average costs of 8,67 in long run equilibrium for a firm employing 6 employees and fixed costs of 150. Entry would thus eat away producer surplus of 210 and reduce it to 150. But, if entry is barred, producer surplus will stay at 210, if wages drop and product price remains unchanged. The firm would now reap excess profits of $210 - 150 = 60$. However, under perfect competition, excess profits do not exist. Fixed costs will, therefore, increase till 210 as a consequence of an appreciation of assets. Total costs and total revenues balance again and average total costs stay at 10.

The value of a limited production factor rises, because it incurs a scarcity rent. We can think of arable land, whose supply is fixed. Landowners can incur a scarcity rent, if wages drop while the amount of land remains unaltered.

Wages could drop below subsistence levels, if labor supply increased, while land is fixed. Markets thus do not guarantee survival of people. However, nobody is to blame, because nobody took decisions that led to this dismal state of affairs. No investment decisions need to be made, if one production factor is fixed, since the number and size of firms then remains unaltered.

Firms in perfect competition theory lack leadership and do not look forward. The firm in the pc model does not operate according to plan. Investment decisions are dictated by changing market circumstances to which firms adapt. Labor is hired on spot markets and easily shed, as wages constitute variable costs. Employers do not feel responsible for workers' fates.

Markets are assumed to destroy community, because traditional relations are replaced by contracts. Coase's extreme market model, wherein each person has his own firm, lacks community. His model assumes that people are all residual claimants and is, therefore classless. The perfect competition model, by contrast, features capitalists and workers.

Organization is limited to hiring and firing by the day and selling the produce on spot markets. There is no room for strategy in the pc model, which, therefore, seems to fit an economy that is directed by tradition as described in Schumpeter's circular flow.

4. Schumpeter on Innovation and Competition

Schumpeter contrasted the dynamic economy with the stagnant economy of the circular flow. Market economies spur innovation through the foundation of new organizations that differ from old ones. This is the essence of his theory of economic development (Schumpeter, 1934). Without innovation, a market economy is caught in a circular flow, where identical processes are repeated from one period to the next. Schumpeter envisioned the circular flow as a perpetum mobile, wherein perfect competition prevailed. Population and capital stock were assumed to be constant. Capital and labor markets are superfluous in the circular flow, since everybody stayed with the same organization and firms ploughed back their cash flow by buying identical capital goods to replace old ones. There is no need for factor mobility in a stagnant economy. Leadership is also superfluous in the circular flow, because no decisions need to be taken; everything being directed by tradition.

Schumpeter distinguishes between exogenous and endogenous events that impinge on a circular flow economy and break up equilibrium.

Exogenous events are strikes of nature that produce good or bad harvests; epidemics that reduce the population; earthquakes that destroy people and assets. Endogenous changes, by contrast, stem from human decision making. These could be decisions to found new organizations. New organizations require investment. These investments create net value in the Schumpeterian scheme, because new organizations are superior to old ones. Entrepreneurship thus causes diversity and labor and capital are re-allocated from old to new organizations. People move to organizations where they are more productive and better rewarded. The same applies to capital. Schumpeter conceived of innovation funded by banks that grant loans to selected entrepreneurs every so many years, fuelling an investment wave. Schumpeter contended that market rivalry involves *creative destruction*; the destruction of asset value of incumbent firms due to the appearance of new, innovative firms. However, losses of asset value are not limited to incumbent firms. New firms can also fail at innovation and lose their value. The unpredictability of investment success does not allow a whole category of firms to either fail or succeed. Schumpeter's endogenous theory of economic development differs from neoclassical theory that describes how the economy reacts to exogenous shocks. Neo classical theory explains how the distribution of value added among production factors is driven by relative scarcities. Net investment occurs through entry and disinvestment through exit of firms. However, entrant firms are not assumed to be superior to incumbents. Both firm births and deaths are shaped by present market conditions in the pc model. Firms jump blindly onto each market opportunity that presents itself instead of looking forward and developing a plan of their own. Profits and losses emerge as a consequence of anonymous forces and nobody can be

held accountable for failure. Risk is absent, if assets can always be resold at purchase price. Assets are sunk, if their value cannot be recaptured on second hand markets. Sunk costs constitute barriers to exit and keep firms in the industry as long as some part of fixed costs can still be recovered. Sunk costs incur losses. However, sunk costs are not deemed to deter entry in the competitive model. We can explain this by arguing that investments in assets become unexpectedly sunk, since people are myopic. Sunk costs constitute the mirror image of scarcity rents in the neo-classical model. Market equilibrium thus features neither profits nor losses, but involves appreciations and depreciations of asset values caused by increasing or decreasing relative scarcity.

Scarcity of entrepreneurial talent cannot explain innovation profits, since supply of entrepreneurship is abundant. Many people want to start their own firm with external finance. Investors, therefore, need to select among the many proposals they receive. Schumpeter assumed that banks were endowed with perfect foresight and would only provide credits to 'good' entrepreneurs. However, this is not the case and some investors in new firms suffer losses, while others incur high gains. Hence, returns are distributed around a 'normal' rate of return on investment featuring both profits and losses (Brouwer, 2002). Some entrepreneurs possess scarce resources, but scarcity only appears after the act of investment is carried out. Profits would dissipate, if it had been clear from the outset which entrepreneurs would succeed and which not, because scarcity rents would be paid to entrepreneurs up front. As a consequence, no investor could make a profit and innovative investment would come to a standstill. Scarcity is thus the opposite of innovation and economic growth. Our description of the pc model indicated how new firm entry can only increase output, if scarcity rents are absent. New firms can obtain finance in economies with developed financial markets. But, investment decisions in the pc model are taken on the spur of the moment without regard of future asset values. As a consequence, investors would lose their money, if demand declines or wages rise. We could argue that capital costs encompass a risk premium that rises, if investments are considered to be more sunk. However, risk premiums could limit the demand for capital up to a point where no new firm formation would occur in response to exogenous events that are considered transitory. Exogenous changes would then be completely translated into quasi rents (and losses) incurred by incumbent firms. The economy would be completely static.

Net investment will only occur, if people expect long term growth and not windfall profits caused by transitory shocks. Growth expectations thus need to precede actual growth to trigger net investment. The economy is in a *steady state* when size and productivity of labor and capital increase at equal rates. The shares of labor and capital in total valued added can

remain unchanged in growing economies as has been the case in 20th century developed economies like the US (Mankiw, 2007). However, this state of affairs is based on technological progress that overcomes scarcity. This picture befits developed market economies. However, steadily increasing factor productivity is abnormal, if judged by historical standards. It does not apply to traditional economies that were stagnant. Moreover, modern economies do not grow according to a linear path but through cycles of boom and bust. Dynamic equilibrium is thus a rare phenomenon in both former and present times.

5. Market and Non Market Change

Innovation causes change, because organizations take decisions based on individual plans instead of responding to exogenous forces. Escape from the circular flow requires the execution of plans by organizations that are forward looking. Capital and labor markets process the changes caused by innovation.

But, purposeful behavior is not restricted to commerce. Groups of people can attempt to grasp political power to improve the position of their members at the expense of others. Land owners can be ousted and the land redistributed among landless people. Forward looking decision making also underlies organizations that decide to wage war. A tribal or feudal leader can decide to invade and occupy neighboring territory to appropriate land and other assets. If successful; his organization will thrive, whereas the defeated party is either eliminated or subjected. All types of competition; market, politics and war involve decision making under conditions of uncertainty of outcomes. War is waged, if the outcome is uncertain. Otherwise, weak states would voluntarily subject to stronger states. Revolutions only occur, if wealthy elites do not render their assets voluntarily. Innovation would also halt, if successful innovations were known beforehand.

Market competition is the only form of rivalry that constitutes a positive sum game, wherein gains exceed losses. War is a negative sum game, whereas political rivalry for surplus appropriation also causes bloodshed and destruction of human and physical capital. Innovation creates more than it destroys.

Investors and workers can lose their opportunity costs, if innovation fails. However, such losses are restricted to the amount invested or wages foregone. Investors are not personally liable for losses and workers remain hireable on labor markets. Limited liability limits losses in market economies. This contrasts with the consequence of failure in war and revolution, where losers often lose their lives and possessions.

The development of limited liability laws is concomitant to economic growth. Limited liability law assumes that losses were not predetermined, but occur by chance. Predetermined failure is considered a criminal act and, therefore, falls under a different type of legislation. Bankruptcy law has become separated from criminal law in developed economies. Bankruptcy proceedings allocate losses to those parties that willingly took risks. These are primarily creditors and shareholders in modern corporations. Company law limits investor liability to the invested sum. Management is responsible for drafting strategy and, therefore, also for losses. However, management is not liable for losses that were not caused by a felony and has limited liability, if they acted in good faith. Economic growth is based on the premise that people act in good faith and, therefore, relies on trust. The origins of limited liability can be found in medieval contract law that was developed in Italian city-states like Venice and Genoa, where the commenda organization emerged in the 11th century to facilitate sea trade. This company form was adopted by Dutch and English traders in the late Middle Ages (Brouwer, 2005).

6. Innovation and Organizations

Perfect competition theory lacks organizations that have long term commitments. But, most actual organizations in both past and present feature some kind of commitment. This applies to traditional organizations. Lord and peasant were related by long term bonds in feudalism. The same applies to tribal societies, where people belong to a certain tribe by birth. Tribal and feudal leaders were held responsible for the welfare of the members of their organization. They constituted communities and not markets. These organizations were usually not monetized and were hardly involved in trade as they strove for self sufficiency. Equilibrium of food supply and demand was struck by infanticide or geronticide, if the population became too numerous. Traditional leaders are not liable for failure as long as they stick to the script written by tradition. They could also attempt to improve the situation of their clan. Tribal leaders could lead their people in war to seize land of other tribes. Victorious tribes usually had no use for conquered people, especially the male, because they wanted to guarantee the survival of their tribe at the expense of others by expanding their territory. Hence, primitive war involved total war; meaning that there was no room for subjugation of conquered people and paying of tribute. *Tribal societies, by their nature, cannot fight for subjugation and all that it implies* (Keeley, 1996, 116). Warfare was frequent in primitive societies and was usually fought for economic reasons. No prisoners were taken in these fights. The number of war deaths in non civilized

communities was large and amounted from 7 to 40 percent of all deaths, far exceeding war casualties of civilized states (Keeley, 1996, 90).

Market economies that are caught in a circular flow have nothing to offer above traditional organizations. People would even be better off in traditional than market organizations, if traditional organizations provided subsistence incomes, while markets did not.

Civilization is built on the appropriation of surplus by elites and assumes productivity to exceed subsistence levels. Land holding elites in traditional societies incur land rents, which they can spend on artifacts of civilization like palaces and works of art. Political elites can appropriate all value added above subsistence levels in autocracies. They would be interested in innovation, if they can appropriate innovation rents.

However, innovation often requires new organizations and therewith a reallocation of people over firms and industries. But, labor mobility would erode time honored social structures. Agricultural elites, therefore, were not drawn towards innovation. If innovative; they preferred innovation that allowed them to feed a growing population and increase surplus without endangering traditional relationships between leading and subjected classes.

The population of a certain territory can only increase, if agricultural productivity increases. Land productivity can be increased by adopting more labor intensive techniques like irrigation and terrace-building. We assume, extending our above example that 12 workers instead of 6 can be put to work on a plot of land, while wages stay at 50. The farmer will now pay 600 in wages instead of 300. His share of total revenues will only remain constant at one third of value added, if total revenues increase from 450 till 900. Hence, labor productivity should remain constant and land productivity should double to achieve this result. The value of a piece of land would then also double.

Labor absorbing agricultural innovation was practiced in riverbed civilizations in ancient Egypt; imperial China and Indonesian Java. Population increased in imperial China, while per capita income remained constant (Maddison, 2007). Controlled flooding also lied at the heart of ancient Egyptian and Mesopotamian civilization. These areas could carry larger populations than less productive lands and also incurred larger producer surpluses.

A different situation emerges, if labor productivity increases. If three instead of six workers can generate revenues of 450 and the third worker produces 10 units at a value of 100; which raises the wage rate till 100. Total wages would stay at 300 and producer surplus at 150. The share of producer surplus in total value added is constant at one third. However, an increase of labor productivity is only translated in increasing wage rates, if labor supply shrank. 3 out of 6 people should leave the land and

find alternative employment to make this happen. Otherwise, wages would remain constant at 50 and landowners would absorb a producer surplus of 300 instead of 150, if they employed 3 workers. However, redundant labor that is not re-employed could shatter established social relations and stir social unrest. Labor saving innovation thus requires markets and mobility of production factors to benefit labor. Moreover, new activities need to be developed to attract redundant agricultural labor. An increase of agricultural labor productivity requires the foundation of new organizations that absorb surplus labor at productivity levels that preferably exceed that of agricultural labor.

7.1. Innovation in Medieval England

Agricultural productivity in Western Europe of both land and labor was raised in the late Middle Ages by *a new integration of agriculture and herding; three field rotation; modern horse harness and nailed horse shoes*. Regional specialization that came with increased trade also spurred productivity in the late Middle Ages (Maddison, 2007, 77). Increased productivity of land and labor implied that populations could grow and the people could leave the land and find employment elsewhere.

Medieval people went to towns, where they became engaged in trade and commerce. Both population growth and labor mobility characterized late medieval England, where population increased from 2,5 million in 1100 till 5 a 6 million in 1300 (Dyer, 2005, 3). The doubling of population in this period was accompanied by the foundation of many towns. The rise of towns spurred a division of labor between town and country-side that promoted trade. Both domestic and international trade with commercial centers in Flanders, France and Italy bloomed in this period of English history.

Departure from the countryside assumes that people are not tied to the land by unbreakable traditional bonds. Tradition thus needs to be discarded to generate productivity growth. The towns constituted the new organizations of medieval Europe. Many English towns were founded by local lords, which saw an opportunity to make money through taxing trade. However, competition among towns reduced the tax burden, which was modest by modern standards. Lords also invested in infra-structures like roads and bridges to facilitate trade and in water and wind mills. Trade brought monetization and put a monetary value on people and assets. Land values increased, when population rose from 1100 till 1300 (Dyer, 2005, 8). Contractual relations between lord and tenant were hardly disturbed by increasing land rents. But, lords incurred a scarcity premium by imposing an entry fee, when tenants had to renew land leases (Dyer, 2005, 88). The labor share of income decreased somewhat from

1100 till 1300, but this decrease was impeded by the clearance of more land and the establishment of new towns. Consequently, population could grow without bumping into limits to growth imposed by insufficient food supply and decreasing real wages. The period from 1100 till 1300 was, therefore characterized as a period of opportunity (Dyer, 2005, 31).

The picture of medieval England drawn by Dyer only partly supports pc theory. The theory would have predicted increasing poverty of tenants and growing producer surpluses to be used for conspicuous consumption by land holding elites as a consequence of population growth. But, the downward pressure on real wages was mitigated by innovation and the rise of towns. Traditional relationships were increasingly replaced by market relationships. Many peasants leased lands and serfdom was relatively rare in 13th century England. Moreover, *even tenants in villeinage were able to accumulate land and profit from the sale of produce* (Dyer, 2005, 90).

Market relations prevailed in these times in England, but the dire effects of market relations were mitigated by expansionary investment in land through clearings and in towns, infra-structures and equipment. Such investment seems to undermine the lords' power to extract an increasing surplus from a growing population that is combined to a fixed production factor. Agricultural economies provide few incentives to labor saving innovation, if new organizations are absent. But, investment in towns and other structures was triggered by competition among local lords and labor mobility was spurred by individualized contractual relations.

Some towns failed to attract a sufficient number of inhabitants as happened to the newly founded town of Newborough that was established by the Earl of Derby in 1263. As a consequence, his investment did not pay off, but caused losses. Lords also invested in water mills that were used for sawing and milling of grain. Competition among lords depressed prices for milling services (Dyer, 2005, 91- 93).

The situation sharply changed in the 14th century, when epidemics diminished the population and the 100 years war with France broke the peace. The English population was more than halved in the fourteenth century by the black death, famine and war from 5 a 6 million in 1300 till 2,5 million in the 1360s and stayed at 2,5 million until 1540 (Dyer, 2005, 3). Land revenues decreased after 1300, which fits pc theory. Land devalued in real terms due to increasing manufactured goods prices (Dyer, 2005, 95). Real wages rose due to increased craftsman's wages and declining grain prices (Dyer, 2005, 128). The labor share of value added increased as a consequence of these opposite price movements. Some people returned from the towns to the countryside, where land was cheaply available. Asset deflation hampered investment in land clearings.

Investment in infra-structures also halted after 1300 and trade diminished. Land values only started to increase again in the first half of the sixteenth century (Dyer, 2005, 131). A shrinking population destroyed asset values and constituted a disincentive to investment. Consumption expenditures, however, increased after 1300 indicating a new equilibrium between consumption and investment (Dyer, 2005, 128).

The 14th century fits pc theory better than the dynamic period that preceded it. The theory predicts that the production factor that is in limited supply can increase its share of the pie. The diminution of population in 14th century Europe shifted the power balance between land owners and workers in the latter's favor. The value of land dropped, when there were fewer hands to toil them and wages increased. A diminishing population would not have benefitted labor, if the supply of land had decreased in proportion with reduced labor. The old equilibrium between land and labor would have been re-established, if half of land was laid to waste. However, such expropriation cannot be easily achieved in a private property setting. What happened in 14th century England was that less labor intensive production methods were employed as fields were turned into pastures.

Summing up; late medieval England up to 1300 constituted a mix of market and organization that was conducive to growth. The circular flow was broken due to net investments in infra structures and equipment. Net investment continued until asset values deflated in the fourteenth century. Exogenous shocks can benefit one group or another, but cannot create sustained growth, because its effects are transitory.

Perfect competition theory argues that a person's fate is determined by group membership. Labor or landowners suffer or thrive as a class. However, this does not apply to economies that grow through innovation. Some investors thrive while others suffer losses. It was mentioned above that some towns bloomed in 13th century England, while others ran losses. This resembles modern economies, where some firms bloom, while others decline as a consequence of innovation.

7.2. Occidental Feudalism

It was pointed out above how individualism characterized English medieval relations. Weber argued that occidental feudalism differed from oriental feudalism by its contractual nature. He described how contracts emerged in occidental feudalism due to the special relationship between king and vassals. Vassalage could be terminated by the vassal at any time upon yielding the fief (Weber, 1978, 1075). Moreover, the fief obtained a monetary value and could be sold and bought. Contractual feudalism involved the establishment of alienable property rights and created a

market for land. Land became the property of the vassal instead of a privilege that could be withdrawn. The vassal possessed property rights and the king could not impose arbitrarily imposed obligations on the vassal. The contractual relationship between king and vassal transcended to the relationship between lord and tenant, which was also contractual. Contractual relationships in 13th century England had developed to a stage where contracts were legally enforceable and upheld by courts. The rise of contracts implied that persons were no longer liable for debts with their lives, but liability was limited to an amount of money to be paid off (Weber, 1978, 679-81). Freedom to make wills that disinherited some family members emerged in medieval England as a consequence of the freedom of contract (Weber, 1978, 692). There were no inalienable birth rights either of the eldest child or any other in 13th century England (Macfarlane, 1978, 103). Individualism thus implied the freedom to enter contractual relationships with who one wanted.

Individualism spurs labor mobility, if one organization values a person more than others. Medieval people could join a town guild and earn more than a peasant income by learning a trade. Investment in human and physical capital involves expenditures based on the calculation of expected future values of people and assets. Expected value needs to exceed actual value to make the investment worthwhile. Investment in dynamic economies requires an evaluation of investment plans. A growing economy is characterized by discourse between employers and employees, entrepreneurs and financiers. Economic growth is spurred in systems that allow discussion and a plurality of opinion. Occidental feudalism in its later days featured councils and parliaments, wherein vassals could speak their mind and had some decision power. This also applied to court systems, wherein defense and prosecution exchanged arguments.

7.3. Individual and Collective Opinion

Investment under conditions of uncertainty benefits some and hurts others. Some medieval English towns prospered, while others declined.

Successful lords could appropriate tax revenues from prosperous towns, whereas those that had invested in towns that failed to attract inhabitants lost their money. Success and failure were unpredictable, but in contrast to the effects from exogenous shocks emanated from human decision making. Exogenous shocks caused by nature would affect all land owners or workers in a region, whereas the effects of human decision making can differ from one organization to another. The fates of firms investing in innovation will differ, if they do not share a common view, but carry out different plans. Diversity is triggered by individual assessments of people

and plans. A person's fate is no longer determined by group, but by individual characteristics. Markets in dynamic economies are no longer driven by anonymous forces, but by opinions. But, financial markets are (partly) driven by collective sentiment. Investment occurs in waves, if periods of unwarranted optimism alternate with pessimism. Asset values are affected by these market moods. Cyclical swings of asset values are unpredictable; or their occurrence would be prevented. If people knew when the peak of stock prices would occur, such a peak would be eradicated because people would start selling their shares before it had reached that point. Cyclical investment swings affect long term growth, since collective opinion is less equipped to select innovation than individualized decision making. Cycles could be dampened, if individualized investor opinions prevailed. Some firms would fail and others would gain under such conditions. Failure of individual firms cannot be prevented in economies that grow through innovation. Diversification of investment can curb losses. But, diversification of novelty differs from diversification among a fixed set of activities. That is because the number and size of innovation bets is unclear. Diversification cannot save firms from failure in dynamic economies.

8. Firms and Markets in Principal Agent Models

The principal agent model differs from the pc model, because the p-a model features leadership and decision making. The principal is the decision maker, who can only achieve his goals through efforts exerted by agents. The business owner is the principal and the employee the agent in this model. Employers pay market wages. Principal agent theory assumes that the efforts of agents vary according to intent. Effort means a disutility to employees, who prefer leisure to work. Labor productivity is thus not determined by a fixed amount of equipment serving a variable number of workers, but by workers' attitudes. Such attitudes do not play a role in the pc model where labor productivity was determined by the rank order by which a worker appeared on the farm. Motivation is, therefore, not an issue in the perfect competition model, but is central to the principal agent model. We can say that workers can choose between putting forth or withholding effort in the p-a model. Company success does not depend on ideas/strategy but on control. We can imagine how p-a theory depicts firms that all follow identical investment policies, but whose success depends on the effectiveness of control. Principals (owners) can earn excess profits, if workers put forth more effort than expected, but run into losses, if workers perform below expectations. We assume that firms that perform below average will fail. Principals are held responsible for preventable failure due to weak control. Bankruptcy can

be prevented, if principals fire agents that do not meet expectations and keep those that did. Dismissal would be considered proof of lacking motivation, which would kill job prospects of people that are dismissed. Workers would, therefore, put forth sufficient effort, which would solve the principal agent problem. The p-a problem would, therefore, be short-lived in market economies with labor mobility.

The principal agent problem could more easily arise, when labor is not free to move. The principal agent model could explain the feudal relationship between lord and serf, or the relationship between master and slave. Bonded labor is not remunerated by wages, but lives on what it receives in kind. Workers cannot appropriate the revenues from their labor and, therefore, have no incentive to put forth effort.

P-a theory contends that people can be induced to do their best by installing incentive pay. Incentive pay is the carrot, while dismissal represents the stick. But, performance can deteriorate due to exogenous shocks. Bad weather could ruin a harvest, whereas good weather could boost it irrespective of effort levels. The relationship between effort and performance becomes blurred under such conditions. A high degree of uncertainty would make incentive pay rather costly, since large bonuses need to be paid in the case of good performance, if uncertainty is high (Brouwer, 2005).

Incentive pay and wages can be combined in a system where base pay is determined by market wages, whereas bonuses are related to above average performance. Employee remuneration does not drop below market rates, but can exceed market rates in the case of good performance. Uncertainty could be shared between capital and labor, if labor received a fixed share of value added of a firm. This can be achieved, if labor owns equity in the firm. However, such arrangements would dissolve the distinction between capital and labor, since both are residual claimants in this construction.

Principal agent theory is based on distrust and can be linked to exploitation of labor in market economies. This derives from the idea that people acquire firm specific skills in tenured labor relationships. However, these skills are not tradable on labor markets. As a consequence, firms can pay workers less than their worth due to the lack of market prices for firm specific skills. This phenomenon is called the '*hold up*' problem. Firms could thus appropriate more producer surplus by not paying employees their full value. However, this would keep employees from acquiring firm specific skills, which would stop such exploitation. The principal agent model would thus dissolve, if agents were forward looking. Agents would neither shirk, because this would cost them future income nor invest in firm specific human capital that is not rewarded. The

p-a model thus only makes sense, if agents are myopic and do not learn from past experience.

9. Economic Theory and Real World Organizations

9.1. Traditional Society and Totalitarian States

Perfect competition theory depicts organizations that do not take responsibility for the well-being of their members. Wages drop below subsistence levels, if labor supply increases. Perfect competition models best describe static economies that respond to exogenously caused changes. Population growth is halted and the majority of the population is bound to live at subsistence levels. India under Mogul rule fits this picture. Population and per capita income remained stagnant for about thousand years. Occupations were determined by birth and property rights were absent. Small elites could appropriate surpluses that were used for conspicuous consumption (Maddison, 1971).

Control of employee behavior is the main source of success in the p-a model. Principals give instructions that are carried out by agents. Employees do not need to come up with ideas, but can limit themselves to executing plans thought up by a central authority. We can think of firms that implement innovations accruing from a common knowledge base to fit this picture. P-a theory can also hardly be reconciled with forward looking behavior in market economies. The model also cannot easily deal with uncertainty that lets organizations fail irrespective of agents' effort levels. The p-a model seems better suited to describe autocratic political organizations without free labor mobility. Failure is attributed to faulty execution of plans that are beyond questioning. Shirking becomes a crime under such conditions. Hence, the principal agent model can easily be transformed into a model of a totalitarian state, if we remove markets and individual rights from the picture. Several 20th century experiences of totalitarian political leadership and command economies fit this picture. People were moved at the will of a central authority, which distinguishes modern totalitarianism from traditional land bound societies. Failure is attributed to people that do not share the organization's goals, who are considered criminals and political enemies. Totalitarian states in 20th century Germany and the Soviet Union attributed failure to people that underperformed or wanted to sabotage the system. People, who are accused of undermining the collective effort, are eliminated in such organizations and/or subjected to harsh conditions in (labor) camps. Individuals were held personally liable for the failure of the organization. Such unlimited personal liability and criminalization constitutes the mirror image of incentive systems in dynamic market economies that pay

bonuses for good performance. Innovation is arrested in totalitarian societies due to the criminalization of failure.

9.2. *Times of Innovation*

Dynamic economies require a combination of market and organization that directs human effort into creation instead of destruction. Innovation appears when property rights and other 'good' institutions allow individual valuation, labor mobility and freedom of organization. This entails the absence of tradition and of totalitarian control of decision making and valuation. Some historical periods were more conducive to innovation than others. The late medieval period is a case in point. Occidental feudal kings did not have absolute power, but had to share it with vassals. Decisions could be revoked and authority was considered neither absolute nor infallible. New organizations emerged, such as monasteries and towns that offered people a life that differed from one's forefathers. Innovation was hampered where authority was absolute and freedom of organization was absent as in imperial China. Land productivity increased due to irrigation and fed an increasing number of people, but per capita income did not grow in China between 1100 and 1800 AD (Maddison, 2007, 382).

In the end, productivity growth depends on the capacity of societies to evoke and adopt good ideas. Multiple decision makers and uncertainty are essential to this process. If the quality of ideas was known beforehand; people possessing such ideas could incur a scarcity premium equal to the value created by the idea. This would annihilate the incentive to invest and entail stagnation. Large firms can hedge their innovation bets through diversification; a possibility small firms lack. Large firms can, therefore, offer more job security than small firms, but cannot diversify by mimicking the economy at large. Such diversification could not take all nascent innovation into account and is, therefore, bound to fail.

Late medieval England was a growing economy. We characterized the process as individualization. The 19th century also constituted a period of rapid economic growth and the rise of new organization. *Self employment and self finance were replaced by business freedoms and enabling institutions in those days. A modern economy is driven by endogenous change instead of by exogenous circumstances* (Phelps, 2006).

10. *The Innovative Firm*

Towns were centers of progress in the Middle Ages. Modern economies rely on business organizations. A picture of innovative business organizations was drawn by Ghoshal & Bartlett in their book *'The*

Individualized Corporation' (1997). They describe how firms like 3M, ABB, Ikea and others have organized their companies in ways that foster innovation. Ghoshal & Bartlett discard the idea that markets are good, while organizations are bad. The modern economy is foremost an organizational economy, in their view; markets taking second place. Economists in the era of trust busting fought firms that made (excess) profits. However, profits in dynamic economies come from investment and not from control of markets and people. Economic policy in former days was based on the premise that corporations wanted to create and abuse market power at the detriment of consumers and society. Received economic and management theory had difficulties to address the needs of innovative firms as it was based on false premises of distrust of corporate motivations and actions (Ghoshal & Bartlett, 1997, 274). However, firms need to compete for innovation and their market power is, therefore, transitory. Uncertainty that is inherent to innovation involves that firms cannot follow recipes from the (strategy) book, but need to make their own plans. They create value by investing in people and planning their own future. Individualized corporations *shape behaviors of each employee, so that they will take initiative, collaborate and develop the confidence and commitment to continually renew themselves and the organization* (Ghoshal & Bartlett, 1997, 178). Innovation requires investment in human capital, which can take the form of giving employees time to think up innovative ideas. Hence, the company must allow a level of slack to be innovative (Ghoshal & Bartlett, 1997, 278). Individualized corporation set their own course. Their behavior is not prescribed by markets. Ghoshal & Bartlett emphasize collaboration as the distinctive feature of the individualized corporation, which distinguishes it from market driven behavior that only pursues self interest (Ghoshal & Bartlett, 1997, 279). They assume that markets induce aggressive behavior, where one person's gain is the other person's loss. Individualized corporations, by contrast, are sharing organizations. I can agree with them on the point that innovative firms need to transcend markets. However, markets are essential to dynamic economies, since they spur labor mobility that is driven by individual valuations. The concept of the individualized corporation indicates that firms need to differ from one another, offering people a choice. Employees can choose organizations whose views and purposes they share. Employers hire people that fit their purposes and culture. Hence, individualized corporations make individual assessments of people. Markets, however, decide about success and failure. Investments in physical and human capital are based on expectations that are not always realized. This interpretation of the concept of individualized corporation brings it in line with the definition of individualism used in this paper. Markets allow

individualism by breaking up tradition and furthering mobility. New organizations are another requirement for economic progress. Human capital is more optimally utilized, if it contributes to innovation. Moreover, employees want to participate in innovation, if expressing ideas does not harm their career. They must thus be spared the negative effects of failure. This can be realized, if innovation profits and losses are shared by all employees of a firm (Brouwer, 2008). However, firms cannot guarantee job security in an innovative economy with its chances of failure. However, job security is replaced by a new moral contract that guarantees workers interesting jobs (Ghoshal & Bartlett, 1997, 286). The modern corporation strikes a balance between individual and organization that is based on trust instead of control. Corporations need to replace rivalry among co-workers by transcending individual success into group success. The emphasis on cooperation raises some intricate questions with regard to promotion and hierarchical relationships in individualized corporations that usually count several layers. But, competition for promotion is not based on individual performance, but on team success. People that are capable of generating profits by making individual assessments of people and plans that lead to success should be in charge. We can imagine that employees want to cooperate, if corporate success benefits them all. Modern corporations resemble communities in this respect. However, modern employees, in contrast to members of primitive tribes, are mobile and can enter and exit organizations. The modern corporation thus combines community and market; individualism and collectivism.

11. Expectation Equilibrium and Innovation

An innovative economy features net investments that are fuelled by expectations of growth and profits. However, steady state economic growth requires *expectation equilibrium*, which is achieved, if expectations turn out to have been right on average. Uncertainty about the right path to success is essential to achieve expectation equilibrium. Uncertainty breeds diversity of corporate strategies. Outcomes of individual firms differ from average performance in this scenario. However, aggregate profits must more than compensate losses to achieve a positive rate of return on aggregate investment. Stable equilibrium thus depends on diversity of opinion and, therefore, on the absence of agreement among investors. Success does not depend on having the right information, but on superior perceptive abilities (Brouwer, 2002). Innovation can only be sustained, if aggregate innovation investment improves productivity. The way strategic decisions are made within firms

is, therefore, of pivotal importance. The same applies to financing decisions taken by financial institutions that should support diversity. Lending in late medieval England occurred mainly between individuals (Dyer, 2005, 175). We could translate that to modern finance by saying that loans were granted based on individual valuations of people and projects. This differs from decision-making that is based on opinions that are shared by all investors. Collective opinion can easily err and too much or too little is invested, if collective opinion prevails. Models that estimate risk based on historical data of a short duration will err, if financial products absorbing this risk give rise to (false) feelings of certainty, which induces ever greater risk taking. Governments that guarantee deposits and bail out banks also enhance risk taking based on collective opinion. Financial institutions can gain from following collective opinion, but cannot lose. Collective opinion raises risks of correlated ups and downs of asset values. All mortgage granting institutions gain if real estate prices rise, but they will also all suffer, if too much money was lent to home owners and a housing bubble bursts. Collective losses could have been prevented, if some firms had been cautious in granting loans. However, all mortgage institutions will suffer, if home prices fall together. So, there is little advantage in being cautious under these circumstances.

Investments in homes are backed by collateral, but collateral value changes are highly correlated. Risk on these investments was severely underestimated by the mass of investors in the 2008-9 sub prime credit crisis. Insurance of such correlated risks is impossible. Financial innovations like credit default swaps, therefore, turned into weapons of financial mass destruction, when home prices fell.

Investment is less risky, if changes of asset values are uncorrelated. We can think of investments in 'high tech' firms. R&D investments are considered sunk and can hardly act as collateral. But, they can be considered less risky than investments in real estate, if investors hold different opinions and profits and losses appear simultaneously. Some firms will win while others lose; some stocks rise, while others decline. Diversity facilitates attaining expectation equilibrium. But, stock markets are also subject to sentiment. Stock busts and booms are caused by collective opinion that deviates positively or negatively from long run average returns. However, stock market bubbles are more easily redressed than real estate bubbles, since they are equity and not debt financed. US and Japanese economies suffered more from the burst of the bubble of home and land values in the 1980s and 90s than from the internet bubble of 2000. The same applies with even greater force to the credit crisis of 2007/8. Deflation of real estate values was ubiquitous and depreciation losses had to be taken by either creditor banks or home owners. Insurance

against losses was futile and could not be paid out of premiums paid for deposit insurance and credit default swaps. Asset depreciations that cannot be recovered by banks or home owners need to be covered by government, that either remits insured deposits of failed banks or bails out banks to cover asset write-offs. US government bailed out banks and also paid out insurance to banks on credit default swaps that were issued in the 2007/8 credit crisis. Government pay-outs saved the system from collapse, but create moral hazard problems that aggravate cycles of under and over investment. Moreover, bad loans that remain on the balance sheets of financial institutions hamper recovery. Depreciation losses that are taken can re-establish expectational equilibrium swiftly and induce a new upturn. The burst of the internet bubble in 2000 led to a massive devaluation of stocks, but stock markets regained momentum soon after the dive. Government money was not involved to cover losses caused by asset depreciation. Investors in stocks thus erred collectively, but the burden was not shifted to the public at large, but was borne by the people who made the decision to buy stocks at elevated prices.

Collective opinion wreaks the greatest havoc, if it involves state supported investment decisions. Conformism seems a safe choice.

However, investment that is supported by government desiccates capital markets and paralyzes economic revival. This happened after the burst of the South Sea Bubble in 18th century England. Stock markets stopped functioning for more than a century after the burst of the bubble in 1720. The same occurred in France after the burst of the Mississippi bubble in 1719. The Mississippi Company was supported by the French state and even obtained the right to issue paper money. Inflation soared as a consequence of these policies (Ferguson, 2001, 315). These state backed ventures seemed to be sure bets. However, their collective nature made them in fact very risky.

Collective opinion creates booms and busts and arrests productivity growth by limiting the number of alternatives that is pursued. Economists estimate real productivity growth to proceed at levels of 2 to 3 percent in modern economies. However collective decision making can support faulty investment projects that do not enhance productivity. The ill fated colonial ventures of the 18th century are cases in point. The same seems to apply to financial innovations that triggered the debt crisis of 2008.

Expectations are diminished, if investment does not generate profits, which drags down future investment.

12. Conclusions

Established economic models of markets and organizations cannot explain growth caused by innovation. Perfect competition theory assumes

perfect knowledge that is accessible to all. Principal agent theory assumes knowledge residing in a central authority that is considered to be infallible. The competitive model of neo-classical theory assumes a monetized economy, where people are paid money wages. Markets are assumed to differ from systems where people are tied to the land and cannot move to other places. However, a search for improvement is futile, if a person's worth is determined by group membership. The most obvious example is that of labor that is tied to a fixed amount of land. This Malthusian version of neo-classical theory depicts societies, wherein populations cannot grow and wages hover along subsistence levels due to the limits imposed by scarce resources. Labor could only gain temporarily high wages, when population was diminished due to the Black Death or other disasters.

Technological progress is assumed to spring from science in neo-classical growth theory. However, many scientific inventions were never adopted for economic purposes. There is no market for inventive ideas in societies that are ruled by tradition or a central authority. Modern societies plan for progress, but are subject to impediments to growth that emanate from collectivism and totalitarianism. Political power that rests on totalitarian ideology wants to destroy political enemies and their artifacts. European monasteries and churches were confiscated and ruined during the Reformation and at the time of the French Revolution. 20th century revolutions based on secular ideology destroyed assets and people on a massive scale. A battle of ideas entails total war, if new ideas cannot coexist with old ones.

Progress was furthered at times when individualization and markets took root. This applies to medieval England, where property rights were defined at an individual level. It also applies to modern economies, wherein organizations are driven by individualized instead of collective opinion. Collective opinion in market economies causes business cycles. Schumpeter attributed recessions to creative destruction, but growth can be steady, if investor expectations are fulfilled. Collective opinion, however, causes cycles of under and overinvestment. Collectivism is not imposed on people in market economies, but chosen voluntarily. Progressive economies need to find ways to further diversity and individualized decision making. Progress in market economies is, therefore, not self-evident, but relies on the organization of creativity.

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