"The idea that Chinese capitalism provides a blueprint for the rest of the world economy is an absurd exaggeration." -KENNETH ROGOFF, CO-AUTHOR OF THE EPIC WORK ON FINANCIAL BUBBLES, "THIS TIME IS DIFFERENT".

APRIL 20TH, EVA

In a recent EVA, I explained the sequence we follow for this publication. For those that might have missed it, we run the *Points to Ponder* version—a factoid overview, if you will—twice monthly, or every other week. Then, once a month, we publish a "guest" EVA from an outside source that I think is unusual and/or interesting. The fourth week is typically a four to five page edition that I write.

Over the years, I have been able to stick to this order other than those intermittent times of market panic when I have felt compelled to send out an "emergency" EVA. This month, however, our usual beginning of the quarter frenzy, and family spring break considerations, including time with grandchildren, has thrown off my schedule a bit. Therefore, we're running our guest EVA a week early.

This actually works out well because today's issue is a good lead-in for one of the topics I will cover next week: China's urgent need to revamp its economic system. In this issue, we are once again quoting the work of our partners at GaveKal Research, specifically a recent essay from its mainland China operation, GK Dragonomics, based in Beijing.

This piece, a condensed version of an essay written by Dragonomic's Tom Miller, looks at China's daunting challenges with respect to its urban development. Over the last 30 years, China's major cities have undergone a high-speed metamorphosis unlike any the world has ever seen. Unsurprisingly, there has been a price to pay and a fairly steep one at that.

In many ways, China's urban modernization has paralleled its economic advancement. Both have been the result of a command/control approach that has excelled at immense development projects but at the cost of pollution, questionable land acquisitions, corruption, citizen disenfranchisement, and a recurring preference for size and quantity over efficiency and quality.

Just as China's economy will need to follow a different course in the decades ahead, so will the evolution of its great urban centers. As I've noted previously, the necessity of new economic models is not just a China challenge; the US, Europe and Japan all need to find new ways to revive growth, cope with aging populaces, and restructure outdated social contracts. The venerable Chinese saying is "may you live in interesting times" and we unquestionably do.

Now, enter the Dragonomics...

Urban living Unlovely cities By Tom Miller

Why are Chinese cities so horrible? The typical Chinese city is gray, ugly and congested. It looks very much like every other city in China, with pointlessly wide roads and squares, and

functional, boxy buildings clad in grimy concrete or shiny white tiles. The old parts of the city have been demolished, save perhaps for a solitary pagoda, rebuilt and sucked dry of its historical sap. If the city is large, its roads are certainly clogged, the air filthy, the streets often unwalkable. Many of its pavements and public entrances are blocked by private vehicles, whose owners scream abuse at cyclists and pedestrians for getting in their way.

Most Chinese cities are ugly, congested and polluted

China's cities have grown at an unprecedented pace over the past 20 years. They are economic machines driving social development and fattening their residents' wallets. Half of China's population lives in towns and cities, roughly 680m people, where they produce more than 80% of GDP. But rapid urbanization has brought with it a litany of social and environmental problems. China's cities suffer from social stratification and a shortage of affordable housing, from appalling air pollution and a lack of fresh water, from poor urban planning and a paucity of good design. They are simultaneously overcrowded and underpopulated, and rapidly moving towards an unsustainable model of suburbanization and car dependency.

Blame the system

The most glaring problem with China's cities is their inability to take account of the people who live in them. The root cause is the system of local government, which rewards officials for boosting economic growth rather than providing public goods. China's urban administrative units are divided into six levels, from provincial-level cities at the top to townships and neighborhood committees at the bottom, with power and fiscal resources flowing downwards. Local jurisdictions that develop rapidly are able to apply for a promotion. From 1995-2008, the number of county-level cities fell by 59, while the number of prefectural-level cities and above jumped by 74. At every level of the hierarchy, local jurisdictions and their officials are incentivized to climb the administrative ladder.

Local governments reward officials for boosting GDP, not for providing public goods

In practice, this translates into an orgy of development and unhealthy competition between cities: more roads, new industrial parks, unnecessary airports, bigger government offices. This top-down system of government means that China does an excellent job of building urban infrastructure, often ahead of demand. Yet it also means that every city aspires to be a mini-Beijing, rather than catering to more organic local needs. There is little incentive for an official or a city, both looking for promotion, to listen to the concerns of ordinary people. China's cities will remain depressing places so long as the political system prevents local voices from being heard.

The task for municipal governments over the next two decades is clear: to create a healthier model of urban development. That means addressing growing social inequity and helping migrant workers integrate into urban society. It means creating a greener environment and doing more to mitigate the damaging effects of rampant development. And it means investing in the mass rapid transit systems needed to create a functioning modern labor market. If cities are to attract educated workers, boost services and create a consumption-based economy, they need to transform themselves from utilitarian dormitories into vibrant social and commercial spaces. In short, China's cities need to become more livable.

A cruel, functional urbanism

For many years, China pursued an ambivalent urban policy. Mao's regime ostensibly had a rural bias, yet its ultimate goal was urban-based industrialization. Protecting the productivity of

China's cities, which were viewed primarily as centers of heavy industry, meant limiting inflows of farmers. The household registration scheme, known as the hukou system, was introduced in 1958 to control the influx of rural migrants, who threatened to gobble up urban food supply. In the initial years of Communist rule, urban investment focused on boosting industrial productivity. Local governments built vast new roads and public squares, compounds to house factories and workers, and universities to educate engineers and technicians. There was little interest in making cities pleasant places to live.

The hukou system was invented in 1958 to keep rural migrants out of cities

In the 1980s, as Beijing loosened its economic and social grip, rural workers were encouraged to "leave the land but not the villages, enter the factories but not the cities." The success of township and village enterprises, owned and run by rural collectives, spawned a policy of small-town development. The government advocated "controlling the big cities, moderating the development of medium-sized cities, and encouraging the growth of small cities." The policy of restricting the growth of large cities continued through the 1990s, even as tens of millions of migrant workers voted with their feet and moved to the metropolises of the east coast.

1

Image not found or type unknown

In the 2000s, policy finally shifted to recognize the reality on the ground. The 11th Five Year Plan (2006-10) advocated "balanced development" of cities, regardless of size. Current leaders are enthusiastically pro-urban; there is a consensus that developing prosperous cities is the key to fostering greater domestic demand. Li Keqiang, who is poised to replace Wen Jiabao as China's premier, argues that greater urbanization is the best way to boost consumption and rebalance China's lopsided economy. The 12th Five Year Plan (2011-15) explicitly promotes the growth of metropolitan regions and urban clusters of large cities orbited by smaller satellites. The revolutionary mantra of turning "consumer cities" into "producer cities" has turned full circle: China's leaders want the country's cities to become centers of urban consumption, peopled by service workers rather than factory hands.

Still building a planned economy

However, when it comes to how these new consumer cities will look, some elements of old thinking continue to prevail. Urban planning regulations and city planners still view Beijing as a model, whether consciously or not. In the 1950s, China's ancient capital was reconstructed on Soviet lines. The city walls, a symbol of the hated feudal past, were demolished. The square in front of the Gate of Heavenly Peace – Tiananmen – was turned into the largest urban space in the world. And ancient courtyard homes and alleyways were bulldozed to create avenues 100

meters wide. The role of spatial planning was to ensure social control; urban design to project Communist Party power. The Soviet model aimed to create a productive city primed for industrial growth (and along whose central boulevards tanks could happily rumble).

Since the 1980s, market reform has transformed the urban landscape. Over the past 30 years, China added more than 120m units of urban housing, built hundreds of economic development zones, and turned city centers into places of commerce. But go to any new Chinese city or district and you will find grandiose government buildings and expansive central boulevards on the Beijing model. One ordinary intersection in Chenggong New District, a satellite city of Kunming, is fully 200 meters wide. The central public square in Ordos City, a new town in the Inner Mongolian desert, is nearly as large as Tiananmen Square. Buildings and cities across China are routinely built and laid out on an unnecessarily large scale. The result is that millions of square meters of real estate are empty or barely used.

The obsession with gigantism has its roots in ancient imperial design, but was exacerbated by the Soviet urban planning system, which used bold city master plans to create cities of inhuman scale. This style of grand, top-down planning survived even as other elements of the old centrally planned economy were ripped up. All municipal governments must still produce a 20-year master plan outlining general development goals, land use patterns and a transport scheme. China's most economically developed cities have begun to publish strategic development plans to supplement the statutory master plan, which can be too rigid to cope with changes on the ground. Master plans are frequently revised. But in the vast majority of cities, "the conventional approach of urban physical planning is still widely practiced," says Fulong Wu, a professor of urban planning at University College London.

In the past three decades, China has built 120m urban housing units

Top-down planning has its advantages. Hangzhou's master plan for 2001-20, for example, envisages moving all industry out of the city proper, building a 1710km metro system, and expanding the airport to accommodate 30m passengers. "The most striking difference between Chinese cities and cities almost anywhere else is that they build ahead to anticipate growth," says Greg Clark, a London-based expert on city development who advises the municipal governments of some of the world's largest building a 171-km metro system, and expanding the airport to accommodate 30m passengers. "The most striking difference between Chinese cities and cities almost anywhere else is that they build ahead to anticipate cities. "In cities like Sao Paulo and Johannesburg, social and economic development is ahead of the physical infrastructure, which is constantly trying to catch up. In China it is the other way around." By building infrastructure ahead of demand, Chinese planners are able to help direct the physical growth of the city. This is one reason why so many Chinese cities appear to have a surplus of housing and infrastructure, and also why fears about "ghost towns" are so often overblown.

Image not found or type unknown

Top-heavy planning

But top-down planning has its limits. Long-term plans can fail to anticipate the messy reality of rapid development and may lock in planning errors. One example is Beijing's third ring road, which planners thought would serve as an efficient artery circling the core of the city. With few cars on the road in the early 1990s, planners followed the already outdated American practice of merging entrance and exit lanes. But as the number of private vehicles in Beijing exploded from 1m in 1997 to 4.8m by the end of 2010, these ill-designed (not to mention dangerous) junctions became a major cause of congestion. Beijing's third ring road is consistently more jammed than other major arteries in the capital. The fact that planners ignored the US's own negative experience of merged lanes highlights a puzzling unwillingness to learn from international experience.

Another reason for the frequently poor quality of urban planning is that planners pay insufficient attention to voices on the ground. China's authoritarian political system ensures that stuff gets done: subsidized houses are built, bridges constructed, subways dug. But residents are rarely consulted, and the evaluative focus is almost entirely on the plan itself rather than on its implementation. Any monitoring that does occur usually comes once construction has already started, or even after it has finished, by which time it is too late to turn back. " The facts only emerge through disclosure by the mass media or public outcry. By then, negative social impact and economic loss are hard to alter," says Xiaoyan Chen, a former urban planner at the China Academy of Urban Planning and Design. Local governments routinely spend grotesque sums on municipal vanity projects, often egged on by teams of international planners, architects and consultants. Every major Chinese city today has its marquee, foreign-designed building – from Guangzhou's much-admired opera house to the

Image not found or type unknown

striking new headquarters of China Central Television in Beijing (which nevertheless remains empty three years after completion). When smaller cities and districts turn to supposedly superior international planners the results can be positive – but they can also encourage grand designs and gimmicky projects that do more to fan officials' egos than serve local people. In particular, design competitions often produce modernist designs detached from reality, says Craig Allchin, an adjunct professor of architecture at the University of Technology in Sydney.

China's authoritarian planning system fails to pay attention to voices on the ground

Smoggy streets, dusty trees

Nonetheless, after half a century of soul-sapping utilitarianism, the pursuit of design is cheering in itself. Until recently, Chinese cities concentrated simply on nailing down a land-use plan and building lots of housing quickly and cheaply. Chinese cities must construct housing for 10-12m new urbanites every year, so supply remains the focus. But planners and developers are beginning to think harder about aesthetic, social and environmental considerations. Government planners want to create better cities. "There is a lot of sophisticated thinking beginning in China," says Allchin, who helps Chinese cities manage their expansion plans.

Creating more environmentally sustainable cities is the biggest challenge facing urban planners

The biggest challenge is to create more environmentally sustainable cities. Hundreds of Chinese cities are habitually shrouded in a brown or smoky fug that swallows buildings and bleaches the streets of color. There is not much point in constructing signature buildings if no one can see them. Fewer than 20% of China's cities meet World Health Organization standards for sulfur dioxide and nitrogen dioxide, and almost none for particulate matter. The air in dry, northern cities swirls with construction dust and sand blown off the Gobi. China's cities emit 75% of the country's greenhouse gases, and more than 400 are short of water. As China's urban population expands by more than 300m to 1 bn over the next 15-20 years, its cities will have to use resources more efficiently and enforce environmental regulations more rigorously.

Policy makers are clear about what needs to be done. "In China you can go to any city, big or small, and they will have energy efficiency targets to meet. I have not seen that anywhere else in the world," says Ede Ijjasz, head of the China and Mongolia Sustainable Development Unit at the World Bank. Almost 200 Chinese cities have low-carbon or "eco-city" targets. The problem is that there is far more talk than action. The vast majority of so-called "eco-cities" are anything but

ecologically sound.

Labeling a city or development as "green" is often little more than a useful branding tool. Even those cities that invest in low-carbon construction or fancy waste disposal schemes tend to have wide roads and free parking.

Chinese cities have done a better job of mobilizing human resources to improve the environment, planting millions of trees and shrubs to help filter dust particles and freshen the air. Official statistics state that the total area of "green land" in China's cities grew from 475,000 hectares in 1990 to more than 2m hectares in 2010. Changing city boundaries and a liberal definition of what constitutes "green land" mean these numbers should be taken with a pinch of salt: few residents would believe that nearly 40% of the area of Chinese cities is green. But many urbanites have seen decrepit housing demolished to make way for new parks, and Chinese cities are noticeably less gray than they were a decade ago.

Time to pack 'em in

China's cities remain dense by international standards, but they could use land far more efficiently. The loss of valuable farmland is usually blamed on property developers, but more land is actually used for industrial development. The biggest culprits are the hundreds of economic and industrial zones found on the outskirts of China's cities, both big and small. These zones all look the same: a sprawl of low-rise factory or office buildings crisscrossed by empty roads, often up to 10 lanes wide. Even if city centers remain bursting at the seams, vast areas of land on the urban fringe are wasted.

This wasteful pattern of development explains, in part, why international comparisons suggest that China's cities are underpopulated. This sounds crazy: China's cities do not feel short of people. But of the 858 Chinese cities identified by a McKinsey study, only 13 have populations above 5m. This matters, because China has to feed one-fifth of the world's population with just 7% of its arable land. Around 80% of China's urban residents live in cities with a population below 5m, similar to the figure in the United States, whose land resource per head is eight times greater. In Japan, which also suffers from a shortage of arable land, the figure is just 45%. If China had fewer small cities and more big cities, it could fit many more residents into a smaller area.

Image not found or type unknown

After years spent promoting the growth of small cities and allowing larger cities to sprawl ever outwards, policy makers now say they want to foster a more concentrated mode of urbanization. "The current physical pattern of urbanization is unsustainable," Yang Weimin, secretary general of the National Reform and Development Commission, told a recent forum in Beijing. In 2010, the central government announced that future urban development would be built around five "national central" cities – Beijing, Shanghai, Tianjin, Guangzhou and Chongqing – along with six "regional central cities" (Shenzhen, Nanjing, Wuhan, Shenyang, Chengdu and Xi'an). The 12th Five Year Plan identifies 20 designated centers for future urbanization, with the aim of directing growth into clusters of large cities.

With fewer small cities and more big ones, China could fit many more urban residents into a smaller area

The idea is to form networks within each cluster, thereby creating a larger labor pool and preventing duplication of infrastructure. In principle, this makes economic sense: concentrated population centers create more jobs and are cheaper to provide with goods and services. But there is a very real danger that the individual cities within these clusters will merge to create vast, unmanageable seas of concrete. Although megacities (urban areas with populations of more than 10m) benefit from economies of scale, they can easily become intolerably congested and polluted. Economists and urban geographers argue over the point at which the marginal cost of adding more residents exceeds the social benefits gained. But research by McKinsey suggests there are no fixed limits beyond which cities cannot grow productively: "The only hurdle to the growth of urban centers is an inability to keep pace with, and manage, their expansion."

Unreal cities

Both the Yangtze and Pearl River Deltas, respectively centered on Shanghai and Guangzhou, are well on their way to becoming megalopolises (chains or clusters of large urban areas). Along the lower reaches of the Yangtze, improved transport links mean that Shanghai, Kunshan, Wuxi, Changzhou and Nanjing are rapidly merging into one. Ten years ago the 300-km journey from Shanghai to Nanjing took several hours; today high-speed trains whisk passengers to Jiangsu's

capital in just 75 minutes. In the Pearl River Delta, planners are working on an Rmb2 trn project to mesh together nine cities with a combined population approaching 50m. The scheme seeks to integrate transport, energy, water and telecommunications networks. An express train will link the Pearl megalopolis to nearby Hong Kong.

The Yangtze and Pearl River Deltas are growing into giant megalopolises

Is this a recipe for economies of scale or for urban dystopia? That will depend on how these new megacities and megalopolises are managed. Tokyo-Yokohama, the largest urban area in the world, has a population of 37m. But its people are healthy and well-fed, the air tolerably clean, and the city's efficient subway system ensures that commuters arrive at work on time. Seoul-Incheon, which has a population of 23m, has regenerated most of the slums that blighted it in the 1970s and 80s. By contrast, Delhi – the world's second largest urban area – suffers from inadequate infrastructure (despite its subway system) and appalling social deprivation.

Yet Delhi has done a splendid job of preserving its historical heritage – far better than most Chinese cities. In 2007 Qiu Baoxing, then vice-minister of construction, lambasted local officials for the "senseless" destruction of China's architectural and cultural heritage in their headlong rush towards urbanization. Lamenting the ugly, uniform buildings casually erected on old temples and courtyards, he put his finger on the most depressing aspect of modern Chinese urbanism. "It is like having a thousand cities with the same appearance," he complained. India's cities have many problems, and no Chinese urbanite would swap his flat for a Delhi slum. But Indian cities, like their counterparts in Europe, do possess the one element that so many of China's cities singularly lack: character.

As China's urban residents grow richer, they will begin to demand a more pleasant living environment. In wealthy cities such as Shanghai, Hangzhou and, for all its faults, Beijing, this process is well underway. If Chinese cities want to be globally and nationally competitive, they cannot rely on economic growth alone to attract and retain talented, creative residents. And if China's urban dream is to remain intact, planners and officials must work harder to create healthy cities in which people want to live. That means cleaning up the filthy air, investing in public transport, restricting urban sprawl, and respecting cultural heritage. It also means learning when too much planning can stifle a city's soul.

Chinese cities have destroyed much of their heritage in the rush to urbanize

IMPORTANT DISCLOSURES

This report is for informational purposes only and does not constitute a solicitation or an offer to buy or sell any securities mentioned herein. This material has been prepared or is distributed solely for informational purposes only and is not a solicitation or an offer to buy any security or instrument or to participate in any trading strategy. All of the recommendations and assumptions included in this presentation are based upon current market conditions as of the date of this presentation and are subject to change. Past performance is no guarantee of future results. All investments involve risk including the loss of principal. All material presented is compiled from sources believed to be reliable, but accuracy cannot be guaranteed. Information contained in this report has been obtained from sources believed to be reliable, Evergreen Capital Management LLC makes no representation as to its accuracy or completeness, except with respect to the Disclosure Section of the report. Any opinions expressed herein reflect our judgment as of the date of the materials and are subject to change without notice. The securities discussed in this report may not be suitable for all investors and are not intended as

recommendations of particular securities, financial instruments or strategies to particular clients. Investors must make their own investment decisions based on their financial situations and investment objectives.