Testimony before the U.S.-China Economic and Security Review Commission on China's Shifting Economic Realities and Implications for the United States

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Co-chairs, members of the Commission: thank you for inviting me to testify today on China's Shifting Economic Realities and Implications for the United States, particularly as it pertains to China's nonmarket economy (NME) status under World Trade Organization (WTO) rules.

This testimony will assess China's reform progress towards the market economy statutory criteria as well as highlighting concerns that China's still nonmarket economy—in particular through the back door for Chinese imports created by the Tans-Pacific Partnership's loose "Rules of Origin" and the risk of providing state-controlled enterprises with access to investor dispute settlement under the proposed U.S.-China bilateral investment.

It has been nearly 15 years since China acceded to the WTO. China's accession agreement classified it as a "nonmarket economy," a designation that recognized China's unique economic institutions deserved special consideration for enforcing a level commercial playing field in the rules-based international trade and finance system. China's accession agreement allowed WTO members to define criteria for how and when a country could be considered a market economy. [1]

U.S. law in particular specifies the following six factors, although most countries adhere to a similar set of criteria:

1. The extent to which the currency is convertible into the currency of other countries,
2. The extent to which wages country are determined by free bargaining between labor and management,
3. The extent to which joint ventures or other foreign investments are permitted,
4. The extent of government ownership or control of the means of production,
5. The extent of government control over the allocation of resources and over the price and output decisions of enterprises,
6. Other factors considered appropriate by the administering authority.

Despite independent processes, countries converged on a common set of criteria, based on economic first principles, which define core institutions of a market economy. Economists might more neutrally classify China as a "still transitioning economy" rather than a "nonmarket economy." This is consistent with the dramatic transformation in China's economic structure from the centrally planned and administered economy left behind in 1978 to the not yet fully transformed economy that we see today.

To be certain, even "market economies" exhibit significant roles for state action and intervention. However, what distinguishes NMEs is that, by design, they allocate resources and make economic choices based on factors other than market prices and economic viability. Thus, the transaction prices observed in NMEs don't necessarily reflect the normal value of goods. In particular, NMEs may directly or indirectly subsidize producers by creating the conditions to underprice the costs of an economy's factors of production—money for investment, energy and raw materials for industry, and even people for work.

Much has changed in China and the world economy over this time. When China joined the rules-based international trading system, roughly two-thirds of it's population still lived in poverty, it's economy was one-third the size of the United States, and the world was still six years away from seeing the first iPhone.[2] Today, China's economy is the second only to the United States in size, it is the world's largest trader and source of foreign direct investment, and its economic growth in this time has lifted close to 500 million of its people out of poverty.

A stable and prosperous China is of benefit to the world, but this does not mean that accommodation of China's nonmarket economy within the global trade system has been all benefit and no cost. MIT economist Daron Acemoglu and co-authors estimate that import competition cost the United States as many as 2.4 million jobs in the first decade to the 21st Century.[3] The shock affects not just those employed directly in import-competing industries, but spills over to suppress employment and wage growth and to burden public budgets across entire regional economies.[4] The U.S. trade deficit with China has expanded to 50 percent of a growing total U.S. trade deficit in 2015 from 20 percent in 2001.[5]

The NME measure was designed not just—or even primarily—to protect U.S. jobs and businesses. They are designed to protect against the general social welfare losses that occur from such inefficient economic choices. These choices have allowed real economic costs like toxic air, water, food and consumer goods; wage repression; and constraints on growth and innovation in private economic activity to weigh on Chinese people and China's national development.

This testimony begins with an overview of the recent trends in economic policymaking since China joined the WTO, evaluates China's progress towards market economy criteria, and concludes with concerns for U.S. policymakers from China's still transitioning economic structure.

2. China's progress toward the market economy criteria

China's economy is certainly not the same as it was when it first joined WTO in 2001. Rapid growth propelled China on the path to become the world's largest economy and trading nation. China's technological sophistication in China's economy advanced rapidly with substantial investments to expand its indigenous capacity along with

learning from investment from multinational enterprises that relocated first production and later research and development activities to China's shores.

Metrics and rankings favored by the popular press often give a misleading impression that China is nearing a market-based economy. For example, China boasts 106 companies in the ranks of the 2015 *Fortune* Global 500 .[6] Of China's 596 billionaires (in dollar terms), 242 reached that status in 2015.[7] Chinese consumers crave international luxury goods with perhaps even greater fervor than consumers elsewhere in the world.[8] Chinese companies have set successive records for largest initial public offering, or IPO, most recently with e-commerce giant Alibaba's 2014 offshore listing in the United States, the largest in history on the New York Stock Exchange.[9]

Such stylized and anecdotal facts can be misleading. It is necessary to make a more systematic evaluation of the empirical evidence and institutional changes in China's economy since 2001. While investment, exports, and individual fortunes have certainly surged ahead in the 2000s, and while this prosperity derived from the combination of new foreign market access and export-oriented growth policies, the overall evidence assessed in each of the market economy criteria areas reveals that despite many areas of progress, key features of China's NME remain intact.

Following China's WTO entry, it is widely understood that the leadership of Hu Jintao and Wen Jiabao had moved China's economic development increasingly in a state-centered direction. In the words of political scientist Minxin Pei, this is when "China's reform died… so much for the prognostication that WTO accession would spur reform."[10] The rebound of the state was so universally obvious after 2001 that native speakers coined a new idiom to describe the phenomenon: "guo jin min tui," or, "the state advances while the private sector retreats," a play on Jiang Zemin's market reform slogan from the 1990s.[11]

When Xi Jinping and Li Keqiang took office in 2012, they pledged a new dawn of reform in China's long arc of economic transition that would course correct from the previous ten years and put China back on the path away from central planning and towards a greater role of market mechanisms and the private sector. The Party's 3rd Plenum Decision in October 2013 outlined a call for reform heretofore unparalleled in ambition of scope.[12] It is worth noting that, even if fully implemented as articulated in the Decision and with the further detail provided in subsequent policy announcements, reforms would still leave China's economy short of the market economy criteria and with a substantial role for government control unparalleled in other WTO member countries.

Not only are the market economy criteria enumerated by China's WTO partner countries derived from economic first principles, but a WTO Working Party comprised of representatives China's government and other representative governments meeting 14 times reviewed in nearly 200 pages of detail specific policies and practices that WTO members saw as violating the conditions of commercial fair

play, as well as the specific steps China's policymakers pledged to take to remedy these upon accession. [13] This included issues like: trade distorting subsidies and industrial policies, non-commercial lending terms, failure to adequately make subsidy disclosures, technical barriers to trade, investment restrictions and conditionality, unfair commercial use and disclosure of test and regulatory data, use of offset arrangements in aerospace and other advanced technology manufacturing, and commitment to enforcing intellectual property rights. As the Commission is well aware, these and more are issues that continue to be sticking points in the U.S.-China relationship.

2a. Government ownership and control of the means of production

China's economy has changed in many sensible ways, yet its political institutions have lagged behind. University of Chicago political scientist Yang Dali describes the extent of state involvement, virtually ubiquitous across most dimensions of economic activity:

> "It was not just government departments that engaged in business dealings. The military, the police, and the courts, indeed just about any party and state agency that could convert its power, assets, and privileges into lucre, were running business operations."[14]

In the assessment of Professor Yang, full transition for China's economy requires not only "introduction of markets, but also the rebuilding of the state into one that is qualitatively different and suited to markets…the state [must] retreat in some areas of the economy, change its behavior in others, and build and rebuild the institutions and capacity to govern markets and provide various forms of public goods." [15]

What matters—from an economic perspective—is who holds agency over China's economic resources, and what incentives and constraints these people face in making economic decisions? The same groups of people hold the same policy levers and face the same set of incentives. They occupy positions of controls over China's productive and financial resources and are linked together through formal and informal networks that allow coordination of activities across discrete institutions.

The WTO defines government ownership or control of the means of production to comprise a public body, "an entity that possesses, exercises, or is vested with governmental authority." [16] This means that a government exercises meaningful control over an entity and that this entity may be used in certain circumstances to serve or exercise governmental authority. WTO rulings currently measure a public body according to a five-factor test that includes: [17]

- Government ownership
- Government presence on the board of directors
- Government control over activities
- Pursuit of governmental policies or interests

- Whether the entity was created by statute

The US has argued for a different definition of public body as an “entity controlled by the government such that the government can use the entity’s resources as its own.”[18] WTO Subsidies and Countervailing Measures Article 1.1(a)(1) discusses “a government ***or any*** public body.” Therefore, the “or” suggests that a public body encompasses a broader meaning than just a body of the government, and “any” means there may be different types of public bodies. Government control and ability to use resources is the “unifying characteristic” of all types of public bodies. Some might have governmental authority, but others may not.

This latter standard is perhaps more appropriate to the case of China’s economy considering the myriad forms of state ownership and channels of state involvement that have and continue evolving in China’s transition away from central planning.

Economic theory recognizes multiple dimensions of property rights. These include:
1. The right to control a good or assets.
2. The right to collect income flows from use of the good or asset.
3. The right to sell buy and sell assets (alienability right)

A simple look at the data reveal the trend since WTO accession in China has actually been to expand assets in the economy where property rights fell to government control, not an expansion of the private sector. Figure 1 shows the growth of fixed asset investment in China by ownership form, adjusted for inflation. State-involved enterprises, encompassing all forms of state-owned enterprises as well as joint ventures with majority state-owned partners, grew apace with investment in domestic-owned private enterprises in China in the late 2000s and into the 2010s. The effects of China’s response to the Great Recession—fiscal stimulus and monetary easing—can be seen in the bubble of state-involved enterprise investment in 2009 and 2010, not mirrored by private investment trends.

More surprisingly, given the seeming deep integration of major global businesses in China’s domestic economy, investment from foreign owned companies (not in joint venture with state-owned enterprises) remains less than 2 percent of total business investment in China—about half of foreign investment in China is registered to Hong Kong, Macau, and Taiwan companies, of which economists estimate that as much as half of this may actually be domestic capital, laundered abroad in order to qualify for preferential policies or to shelter assets.[19]

Similarly, state-owned enterprises also comprise an increasing share of employment since 2002, as seen in Figure 2, reversing course on what has been overall a decline since in state enterprise employment since the early 1990s. The biggest changes in China’s labor market have been the shift of employment out of agriculture and into businesses registered as private owned, self-employment, or other unspecified forms of ownership. The share of Chinese people working in agriculture fell from 50 percent

in 2000 to 31 percent in in 2013, while the share working in the private sector rose from 13 percent to 43 percent.

The shift out of labor employment is well known and widely recognized as contributing significantly to China's increase in overall economic productivity and broad increase in living standards. It is less widely understood that in fact employment in state-owned enterprises also expanded as a share of the economy—those owned by government entities at the central, provincial, and local levels. Between 2000 and 2011, employment in state-owned enterprises grew from 33 percent of all employment in China to 37 percent. Following 2011, official statistics do not report observations for the full range of ownership forms, but assuming proportional growth, state-owned enterprise would account for well over 40 percent of all jobs in China today. This expanding of state employment does not reflect the surplus labor long-since shed from official payrolls, but rather the real expansion of the footprint as enterprising managers learn to effectively capitalize on the incentives provided in China's economic system. At the same time, Figure 2 shows that wholly-private foreign direct investment in China, though increasing to 4 percent today from less than 1 percent in 2000, still registers only a minor share of overall employment.

Public officials, not shareholders, continue to select the top managers and members of boards of directors of China's major and minor corporations including most state-owned and many privately owned firms.[20] High ranking employees often hold positions of power simultaneously in government institutions, within the party, and on boards of related enterprises.[21] Senior managers of central SOEs—the 117 enterprises controlled by China's State-owned Asset Supervision and Administration Commission, commonly referred to as SASAC—hold the equivalent of senior minister-level status in China's political system and run some of the world's largest corporations. Political scientist Minxin Pei estimates that the Chinese Communist Party appoints four-fifths of the chief executives at SOEs and more than half of all senior executives.[22]

A systematic rotation of high level people among corporations, government, and the Communist party enables planning and coordination for these separate entities.[23] Executive musical chairs is a common occurrence. For example, leaders in three of China's top telecommunications SOEs swapped places in 2007.[24] In holding multiple positions within firms and government simultaneously, senior officials are constantly rotating through various positions, allowing them to easily collaborate strategy and activities, and to develop experience and relationships to proactively solve problems. By 2003, 34 percent of private entrepreneurs were CCP members, compared to 14 percent a decade earlier. Membership is a valuable asset, and is associated with private entrepreneurs' ability to gain access to bank credit.[25]

Increasingly, such enterprises have transitioned to apparently modern corporate governance structures with extensive families of corporate subsidiaries.[26] As a recent editorial in *Caixin* magazine—comparable to *The Economist* of China—observed:

> Nowadays, many state firms are undertaking shareholding reforms, and many have become listed companies. However, since state shareholders have absolute control of these firms, there has been no marked improvement in their governance structure.[27]

Unfortunately, the challenge of divorcing the state from the levers of economic control remains daunting to both domestic and international experts. Legal institutions necessary for the micro-market structure necessary to rely on market mechanisms for aligning manager and owner incentives for governance of the firm do not exist in China.[28] Even where public listings sell shares to private investors, Chinese laws and regulations constrain the control that shareholders can exercise over management. This is a somewhat moot point because only non-controlling minorities of shares are ever in play in China's stock markets. As a result, the market can do little to weigh in when it comes to choosing firm managers and boards of directors—positions appointed by party personnel systems.

Officials often serve simultaneously as the policymaker and regulator, combining direct or indirect ownership interests in enterprises over which they govern. In a true market economy, CEOs face the risk of dismissal if the company's financial performance under their management sufficiently disappoints investors, leading to sagging stock prices. In China, by contrast, with a minority of shares offered to public trading, and with basic legal institutions that restrict the voice and protections of shareholders, senior managers of state-involved firms are largely insulated from the possibility that independent investors could challenge control of the enterprise.

Government control is particularly prevalent in China's financial system where, the U.S. Department of Commerce notes, "near complete state-ownership of the banking sector in China" has functioned to deliver impermissible subsidies to favored companies in carrying out official policy through the banking system.[29] Article 34 of China's Commercial Banking Law states that banks must "carry out their loan business upon the needs of [the] national economy and the social development and under the guidance of State industrial policies."[30] In the prospectus for its global sharing offering, Bank of China was required to disclose the risk to potential investors that: "Chinese Commercial Banking Law requires commercial banks to take into consideration government macroeconomic policies in making lending decisions."[31] As the OECD finds, the chief executives of China's state-owned commercial banks, or SOCBs, are government-appointed and "the party retains significant influence in their choice" despite corporate governance reforms and public share offerings.[32]

In fact, the state directly owns the vast majority of the country's financial institutions, and it is also the largest actor in China's financial markets. Banks, brokerages, insurance, and investment firms, the majority of corporate shares in publicly listed companies, financial assets in bonds, derivatives, and foreign exchange markets are largely under China's control.[33] Many of the nonmarket distortions pervasive in China's financial system are baked into the cake by the extent of state involvement in

financial institutions and its control over nonfinancial corporations. That is to say, financial markets in China cannot operate like financial markets in other developed economies in the following aspects:

- Pricing and allocating capital based on economic risk assessments
- Providing a market for corporate control and a price signal to guide firm managers' performance
- Providing an opportunity to participate in control over firms, including governance and ownership decisions
- Paying income shares to firm owners

The state institutions that control China's financial system preclude the functioning of market-based mechanisms that typically serve these roles in other non-state-driven advanced and developing economies. Instead of two parties engaging in a business relationship, it is two parts of one party in the form of the Chinese government. If the state is party to both sides of transaction, market forces cannot determine capital prices. Domestically-funded financial institutions receive exclusive benefits from liberalization reforms and will continue to be able to offer non-bank financial products like auto loans, trust and asset management, and leasing services on non-commercial terms. [34]

Reform plans are underway for state enterprises in both the real and financial sectors of China's economy. In the real sector, pilot state-owned enterprise reforms call for a "mixed ownership economy" that will allow foreign and private investors to invest in Chinese SOEs but only on a minority basis. [35] The directive is not entirely a shift toward market economy standards. At the same time it lets foreign investors in, other parts of the directive prescribe that state capital should maintain "the absolute controlling position" of the economy and consolidate state assets under complex-corporate structures. None of these signs point to a loss of state control, but rather allow key foreign business interests an opportunity to buy a limited share in China's economic machine.

In the financial sector, pilot reforms to open China's financial system to private banking will be limited to four different models targeted to test the waters in segments of the banking system underserved by current institutions, though all the private investors approved for new ventures all exhibit strong state ties.[36] The first pronouncement on the private banking experiments indicated that new ventures would be required to draw up "living wills"—plans for unwinding an institution's financial commitments in the event it becomes insolvent.[37] The focus on creating a mechanism to insulate public exposure to private risk-taking was ostensibly a lesson that China's leaders and financial regulators drew from watching their U.S. counterparts scramble in 2008 to cope with the collapse of Lehman Brothers investment bank and insurer American International Group.

In July 2014, the China Banking Regulatory Commission announced that it would require contingent capital arrangements to ensure sufficient funding is available following unexpected adverse events. Both owners and investors would be exposed to risk that should theoretically reintroduce discretion into the investment process.[38] According to *The Economist*, it would work as "debt issued by a firm that could be converted into equity during a period of financial stress" to guarantee capital liquidity.[39] Reforms rolling out in China's experiments in the Shanghai Free Trade Zone and other newer free trade zones will require new banks to be controlled or founded by a Chinese national and can only implement models based on Internet-based micro-lending, corporate banking, private banking, or other unspecified activities.[40] Still, the SFTZ allows for new finance opportunities in commodities, supply chain, asset management, and international investment.

2b. Currency convertibility and exchange rate management

The most dynamic area of economic reform in China pertains to management of the exchange rate and inextricably related issues of capital market and interest rate liberalization. This is because effective pricing of the exchange rate by market mechanisms requires that investors formulate clear expectations about the term structure of interest rates—that is, what interest rates are charged for different levels of risk and for different lengths of time. The interest rate term structure defines the price of money, and therefore the level at which it should exchange with other national currencies given the interest rate term structure and price levels in those other monies. As Eswar Prasad reported to this Commission, the sequencing of capital market reforms are paramount to the success of an exchange rate reform, however the extensive state ownership and control over capital allocation and pricing present significant barriers to establishing a market-based exchange rate mechanism in China.[41]

China's currency is and for a long time has been freely convertible for trade transactions, but convertibility is still regulated for financial transactions. After a decade of managed appreciation of the China's renminbi, or RMB, against the U.S. dollar, China's monetary authorities once again intervened causing a nearly three percent devaluation over three days in August 2015.[42] As the dollar had appreciated against world currencies—thanks to the ongoing economic stagnation and debt crises in Europe, competitive devaluations from countries like Japan, Singapore, and Malaysia, and expectations of a Fed interest rate hike—China's currency, still pegged to the dollar, appreciated and lost international competitiveness, too.

China's monetary authorities and the IMF declared this move as a step on the road toward eventual liberalization of the exchange rate to a completely market-based mechanism.[43] Premier Li Keqiang, the economist, had said in his 2014 Report on the Work of government and the economic reforms which he was crafting, "We will keep the RMB exchange rate basically stable at an appropriate, balanced level, expand its floating range, and move toward RMB convertibility under capital accounts."[44] PBOC Governor Zhou Xiaochuan explains China's exchange rate mechanism as "a managed

floating exchange rate regime based on market supply and demand and with reference to a basket of currencies."[45]

However, much uncertainty remains over how far and how fast this reform may proceed, particularly given the financial market disruptions and capital outflows experienced in China over the past year. Other statements by Governor Zhou underscore plans to ease its foreign exchange activity will preserve the capacity to intervene in the market depending on the situation.[46] In a recent interview, Zhou said, "Our aim is to have the exchange rate 'broadly stable at an adaptive and equilibrium level.'"[47] Stability and market-based exchange rate pricing do not go hand-in-hand. Indeed, market-based exchange rates have proven more volatile than managed exchange rates across developing and developed countries in the period following the breakdown of the Bretton Woods fixed exchange rate system.[48]

Managing exchange rates also comes with potential costs and risks, but at the present time moving to a market-based exchange rate would certainly exacerbate many of China's macroeconomic problems—particularly debt sustainability and inflationary pressures—while also leading to a sharp depreciation that will worsen China's current account balances with trading partners. But a full liberalization does not seem to be what Gov. Zhou or Premier Li are suggesting—they are indicating that policy management of the exchange rate will continue to define the Renminbi for the foreseeable future.

Statements on the direction of exchange rate reform also reference reliance on a basket of currencies against which the value of the Renminbi will be managed. This is not a new policy, but continuation of a policy announced in June 2005, when policymakers began managing the gradual appreciation of the Renminbi against the dollar. A key question here is against which currencies will the Renminbi be managed? Econometric analysis is helpful in illuminating the composition of the currency basket targeted by monetary policymakers, following a widely-used method developed by Harvard economist Jeffrey Frankel and former IMF economist Shang-Jin Wei to measure the relative flexibility of a currency and how heavily an exchange rate is pegged to other international currencies.[49] This is accomplished by evaluating how China's and other countries' exchange rates co-vary relative to another benchmark rate—in this case, SDRs, while also accounting for monetary pressure building in the financial system due to a misaligned exchange rate peg.[50] Frankel and Wei's method also allows the analysis to account for monetary pressure building up in the financial system due to an exchange rate peg. The results of this analysis are presented in Figure 3. Beyond just looking at one point in time, Figure 3 shows the results of estimating the currency weights using higher frequency daily data in rolling 180-day windows. This provides a clearer picture of how China's exchange rate peg has evolved over time—or in this case has not changed.[51]

Surging exchange market pressures create small spikes and valleys in the estimated basket weights—most notably for the speculative bubble years that preceded the 2007–2008 global financial crisis. When the crisis hit, capital controls bound tighter,

and China reverted back to a near-100 percent peg to the U.S. dollar. This worked for a while, but China's capital controls soon saw more pressure. This was due to a rising tide of capital in international financial markets—enabled in part by successive rounds of quantitative easing of monetary policy from the Federal Reserve, as well as by the large gap between potential returns on dollar and RMB assets.[52] The analysis shows an ongoing shift away from the U.S. dollar as the sole currency in the exchange rate basket. The Singapore dollar, and the Euro have been the main currencies added into the mix, but the dollar still maintains its role as predominant currency in China's basket, explaining roughly 90 percent of the RMB's exchange rate.

2c. Government control over allocation, pricing, and production

Since 2001, in compliance with WTO commitments, China abolished some 124 price regulations.[53] Many prices in China's economy operate on conditions of supply and demand—particularly for consumer goods and services—where high output and economies of scale in production can drive prices down and help raise real consumption. Many key prices remain state-influenced, including prices in financial markets, land markets, and key raw materials and intermediate goods that feed into other industries in China's economy. These hold down the prices of key inputs for China's industries, providing cost advantages in specific industries and more generally economy-wide.

Market price determination exists for more and more things in China. As millions of households enter the middle class, China's thriving consumer market has forged a hyper-competitive environment for attracting the spending of newly acquired disposable income.[54] Consumer goods and services—from tube socks, to basic groceries, to motor scooters—are bought and sold at cutthroat prices, often referred to as the "China price."[55]

Like with foreign investment, discussed below, prices are still deemed a matter of national security in China, granting the central government significant decision-making power. The inflation-led social instability created by the 1989 crisis still looms large in the minds of top officials. As a result, policymakers at the top and at China's central bank watch prices closely. In fact, China's consumer price index measure deviates from international statistical standards to more heavily weight consumer staples such as pork, cooking oil, rice, and garlic, among other items, thought to have the potential to elicit protest over rising costs of living.[56] Pressure to ensure stable garlic prices, for one, have led to extensive state involvement in garlic production and distribution since 1994, including the dumping of surplus garlic on international markets.[57]

Pricing reform is reaching previously untouchable parts of China's economy. In 2014, regulators unleashed mobile telecommunications operators by granting operators full autonomy over fees and pricing models at the retail level.[58] Further reforms will allow third party companies—including foreign companies—to license and sell phone, text, and data services. More change is coming in the areas of healthcare and

private education, and other typically non-tradable service industries, too.[59] Yet in other areas, market price mechanisms appear not to be functioning in guiding allocation decisions. For example, industries exhibiting global overcapacity continue to expand investment and output despite price and demand slumps. For example, China's shipbuilding industry, amidst a global oversupply in ships and declines in demand for shipping that saw new orders down 48 percent, actually increased shipbuilding by 7 percent in 2015.[60]

China's top economic administrative body, the National Development and Reform Commission, or NDRC, in its price department, administers pricing for energy utilities to ensure profitability for producers and at times to discriminate between certain industries or firms.[61] Utilities in China do not yet set prices based on supply and demand conditions. Instead, authorities are experimenting with a three-year pilot program aimed at market pricing of electricity transmission for commercial and residential users in the southern city of Shenzhen this year.[62] So far, the utility rates remain set by economic planning authorities at NDRC, although these policymakers are taking steps to reduce costs to household end-users. Reportedly, the murky pricing mechanism of the utility provider in the Shenzhen region, Southern Grid, derailed the company's bid for a Hong Kong IPO in 2008.[63] NDRC also still sets prices nationally for rail freight in China; only one freight rail line—running 180km between Inner Mongolia and Shanxi provinces—operates on conditions approaching supply and demand. [64]

Recent cases in multinational trade law reveal specific areas where a nexus of public policies in China effectively skewed price and output decisions. The 2014 rare earth elements, tungsten, and molybdenum case—critical components in advanced battery technologies and other uses in information and computing technology hardware—illustrates the multiple policy levers that can be pulled for the national economic goal of managing key resources. The case was brought by the United States in 2012, but joined subsequently by 18 third parties, including the European Union, Japan, Canada, South Korea, Brazil, Russia, India, and Trans-Pacific Partnership partner countries Japan, Viet Nam, and Peru.[65] In August 2014, a WTO appellate body confirmed findings the China imposed export duties, export quotas, and restrictions on which companies could produce and trade in these raw materials to impact their supply and price.[66] Chinese officials argue that the policies in question intended to manage conservation of an exhaustible natural resource, as may be permissible under WTO's Article XX. However the appellate body noted "China had not satisfactorily explained why its trading rights restrictions were justified under this provision," and that the policies were not "necessary to protect human, animal, or plant life or health."[67]

Canada's trade enforcement actions involving China is instructive in considering NME status on an industry-by-industry case. The Canada Border Services Agency, or CBSA, handles customs services and sets a higher standard of proof that favors NME economies. In theory, this flexibility allows Canada to recognize the evolving and

hybrid nature of China's economy, but in practice violations of trade rules remain difficult and costly to prove, particularly with the range of available indirect industry support. The CBSA found significant divergence between Chinese domestic prices and global market prices for subject goods in multiple markets.[68] Evidence that Chinese producers still choose to sell in markets where prices are lower than the domestic market support a conclusion that Chinese prices are not what they would be in a competitive market.[69]

CBSA also found that prices for raw materials in China deviated significantly from world prices, thereby transmitting price distortions through the production value chain into other goods. In a dumping case over aluminum extrusions, CBSA found significant deviation from the world price for aluminum on the London Metal Exchange in the Chinese price of aluminum on the Shanghai Futures Exchange.[70] CBSA found a similar pattern of non-market pricing for carbon steel welded pipe exported from China.[71] In a case over seamless casings, CBSA determined that Chinese producers used steel inputs (e.g. iron ore, coke) purchased at world prices, but that the resulting goods produced with these inputs still sold at below world market prices. Interventions can also deliver a benefit by dampening the volatility of prices relative to world market prices, as CBSA found in the oil country tubular goods steel dumping case, indicating that China exercised considerable control over prices.[72]

Specific findings from trade enforcement case evidence are reinforced with analysis of select prices for key goods in China relative to world market prices, showing there is still a wide disconnect. Some commodity prices follow quite closely to the short-term movements in representative world market prices, while others diverge from world market price trends or seem to move on their own volition. This suggests China's ability to "set" pricing for key inputs to production is not impervious to world market forces, but disruption to market price mechanisms can mean domestic prices move unpredictably from the global price trends.

Rigorous statistical tests using cointegration analysis can measure the responsiveness of prices in China's economy to world market prices.[73] Cointegration is a statistical property where a price series or other variable exhibits a stable long-run equilibrium relationship with another variable, tending to move together in proportion. Cointegration of prices in different economies would suggest that price changes in one economy impact upon and adjust to price changes in other economies. Such analysis can also suggest the direction of causality between one economy's price movements and prices on the world market. Testing whether prices for commodities in China are cointegrated with commodity prices around the world gives an indicator of the extent of the market-basis for price setting in China.

Analysis of a selection of representative prices shows that goods prices in China divide into 3 categories:

1. Prices integrated with and leading world prices – this means that economic activity in China drives changes in world market prices.
2. Prices integrated with and following world prices – this means that China's prices adjust, or are constrained to world market trends.
3. Prices with no long-term co-movement with world prices – this shows a fundamental disconnect from market-based prices.

In the first group we find: hot rolled steel and steel wire, coal, and iron ore. For these goods, prices in China's economy move in a long-term relationship to world prices. However, this does not necessarily entail that price-setting for these goods is happening under conditions of competitive supply and demand. Identifying the observed statistical interrelationships between a set of prices allows for estimation of how a shock, or unexpected one-time change, in one price reverberates through prices in related markets.

Take coal as an example: Figures 4A-4C show that a shock to world market coal prices, measured in prices for Australian, South African, and Colombian coal, has asymmetric effects on Chinese coal prices relative to world market prices. Figure 4A shows that, as a result of a price change in Australian coal translates into a change in Chinese coal prices only by about half of the size that a change in Australian prices has on Colombian and South African coal prices. A similar asymmetric effect can be seen in the response of Chinese and other world prices to a shock in South African coal prices.

What's more, the shock from changes in world coal prices is more permanent than changes in Chinese coal prices, which not only show a smaller influence of world prices, but also show that the effect of world price shocks does not last as long in affecting Chinese prices. China's asymmetric muted response to price changes on world markets reflects how market mechanisms are disrupted in China for this key input to electricity and other industrial applications. This analysis indicates that China is not impervious to market price forces. Chinese policies are still capable of managing prices to the favor of domestic industries—those that directly use coal in production in industries like steel and cement, and in general lower through lower electricity prices. Beyond the economic costs from market price adjustment, there are grave negative environmental externalities with real economic costs from excessive coal consumption and the range of pollutants to the local air quality and global carbon emissions.

Another example can be seen in prices for iron ore, another key input for raw steel. Figures 5A-B show that when iron ore prices spike on world markets, China's iron ore prices feel a mild short-term impact, and within 3 months not only does that shock disappear, but Chinese prices ratchet down on a persistent basis over the 24 months following a shock of increased world iron ore prices. In contrast, a rise in iron ore

prices originating in China's domestic economy causes a short-term spike in world iron ore prices that is greater than four times the magnitude. World prices gradually adjust down as other producers expand their supply to satisfy increased demand from China for iron ore.

This kind of analysis also suggests that prices for some goods in China are integrated with and follow closely world market prices, meaning that prices in China adjust to or are constrained by world market trends. Copper prices are a particularly illustrative case where cointegration analysis finds China's domestic prices responding to world market conditions. Although China is a world-leading producer of mined copper, it does not produce enough to satisfy the demand for the use of copper for goods and investment in China and in production of consumer and investment goods for world markets. As a result, China is a large net importer of commodity copper products and a large producer and exporter of manufactured copper goods ubiquitous in all kinds of electronic and information and computing technology products and construction products. These items embody processed copper, and the rate at which China's economy processes copper is driven by the demands of consumers and investment in global markets, since the pace of copper demand for domestic use in China is trend-stable with China's high level of investment and average consumption growth.

2d. Regulation of joint ventures or other foreign investments

While inflows of foreign direct investment capital have helped China's economy flourish, investors enter an economy under well-known non-market conditions and at a distinct bargaining disadvantage relative to the leverage held by the Chinese state. Foreign businesses, urged on by the demands of short-term views in financial markets, are still desperate to get a piece of China's economy. The opportunities of to take advantage of rock-bottom manufacturing labor costs, increasingly sophisticated infrastructure, a growing pool of well-skilled workers and aspiring middle class consumers in China's burgeoning economy are lucrative.[74] That access often comes at a cost, a "choice" to invest in a joint venture with a domestic firm where foreign product and process technologies are readily learnable by domestic partners.

Global business face obligations to access both China's increasingly sophisticated production infrastructure and workforces as well as a piece of the largest and fastest growing world market. Policymakers in China use this advantage to leverage technology transfers from foreign investors. By restricting investment in China and market access, Chinese officials set take-it-or-leave-it terms for private-sector and foreign investment in the Chinese economy.[75] While a number of areas are strictly off limits to foreign investment—areas deemed critical to national economic security, a more expansive scope than most market economies take on what is critical for security—investment is actually encouraged in other areas, but under restrictions

requiring minority joint ventures with a domestic firm as a means to facilitate technology transfer.

The strategy of regulating foreign investment for technology transfers can be seen in practice in the rapid development of China's high-speed rail technology. In 2004 the Ministry of Railway (MOR) solicited bids to make some 200 high-speed trains. The Japanese firm, Kawasaki Heavy Industries and its local partner, CSR Sifang Locomotive, won the largest portion of the 140 billion yuan contract. CSR Sifang's employees were trained by Kawasaki. However, Sifang later broke its contract with Kawasaki. Even though the trains emerging from Sifang's factories are identical to Kawasaki's models, the firm claims that the trains are based on their original designs.[76]

Since 1995, a positive list detailing the areas in which investment is encouraged, restricted, or prohibited for non-state and foreign investors governed China's investment restriction regime, the so-called "Catalogue for the Guidance of Foreign Investment, most recently amended in April 2015.[77] Pilot reforms in the Shanghai and other free trade zones in Tianjin and Guangdong province created since 2013 to move toward regulating foreign investment via a negative list—indicating which areas are prohibited or restricted for investment, rather than which limited areas were open—so far have merely replicated a mirror image of the existing positive list, meaning no practical change in how China's investment policies regulate joint ventures and other foreign investment. [78]

Subsequent revisions to the list in 2014 and 2015 served to decrease the count of listed items, but did so largely by merging of prior categorizations. In July 2014, the list shrank on a nominal basis to 139 items, down from 190. "Of the items that were eliminated, 14 correspond to areas where foreign investment was prohibited or permitted under certain conditions, 14 are prohibited to both foreign and Chinese investments, while the other 23 were consolidated with similar items."[79] In 2015, the list shrank again to 50 categories under which the previous listed items were re-grouped. [80] The newer lists also give more specific restrictions, making more transparent which areas of investment still need to meet particular conditionality, and also incorporates restrictions on foreign direct investment enumerated elsewhere in Chinese law.[81] In the most recent announcement, authorities called to gradually expand this negative list approach to the entire country by 2018.[82]

China's openness to foreign investment is changing in other ways, but this change is limited to industries in which China's policymakers do not place strategic economic importance like low value-added and unskilled labor-intensive manufacturing and in industries that are not trade-competing or where knowledge and technology are not readily appropriable like in education and health care services.

The past decade has seen creation of a new vehicle for foreign investment in China—the wholly foreign owned enterprise, or WFOE that proliferated within the industries where such activities are permissible. [83] However, the opportunity to establish

WFOEs is still governed by the positive list investment catalogue—meaning only in explicitly permitted industries, and places a host of other regulatory hurdles on such investment. The Ministry of Commerce still exercises discretion to accept or reject registration applications for WFOEs. Other policies are designed to limit competition, providing favored firms with monopolistic power. For example, foreign-owned construction firms may establish a local presence in China, but regulations limit operations to construction projects that are wholly funded by foreign investors.[84]

Currently, foreign investors are pushing the boundaries of China's formal investment regime by forming so-called variable interest entities, or VIEs, which garnered attention in Alibaba Group's 2015 IPO on the New York Stock Exchange.[85] VIEs exist under the radar, but with a passive nod from China's foreign investment regulators practicing a kind of "don't ask, don't tell" policy. Proposed reforms would provide more formal security for property rights of VIEs, in essence, protecting the legal claim to earned profits, while preserving control of the firm in the hands of Chinese legal persons by allowing majority Chinese firms to register as "Chinese-invested," affording full legal rights and ability to contest those rights in Chinese courts, such as it is.[86] VIEs are typically financial holding companies incorporated in low-tax, low-transparency jurisdictions such as the British Virgin Islands or Cayman Islands where shareholders in the VIE own a contractually-specified share of revenues earned by the actual underlying company—a way to own part of the profits without owning control of the company. Except that in China, investors have no real legal claim to these profits.[87]

The future of VIEs as a means to end-run China's restrictions on foreign direct investment remains uncertain. Certainly there are successful examples—from the foreign investor's perspective—but there are also many examples where the domestic enterprise is high jacked by managers or defrauds investors, who have no legal recourse. It is possible that policy reforms may catch up to practice, validating these foreign property rights, but this is by no means a foregone conclusion and foreign investors should be aware they are undertaking more than just normal country risk in flagrantly evading China's foreign investment regime.

It is reasonable to expect that no significant changes to foreign investment regulation will occur prior to conclusion of the bilateral investment treaty currently under negotiation with the United States—lest Chinese negotiators unilaterally cede bargaining leverage in this negotiation.

2e. Labor rights and wage bargaining

Where China most shortfall of the market economy criteria is most clear-cut is in the standard for labor rights and wage bargaining. Like in other areas of China's economy, China's labor markets have transformed radically over the past 35 years. The trend of an increasing share of private sector employment (as shown in Figure 2) will continue as more of China's rural population moves to the city in search of better opportunities where they can be more productive, and as previously underdeveloped

service sector industries expand. Better opportunities means, bluntly, people getting out of subsistence agriculture, and getting plugged into China's "modern" manufacturing and service sectors. But it also means China's economy must create better quality jobs—ones that respect fundamental rights and afford a decent standard of living.

As of 2013, there were over 793 million people in China's labor force, and fueling economic growth for such an enormous population is not a simple task.[88] Although wage-setting in China's labor markets occurs on a competitive basis, that competition is dominated by employers, not the workers who have very limited power in work relationships. All of these workers in China enter the wage bargain in a labor market operating under what Cornell University political scientist Eli Friedman describes as a system of "appropriated representation" built on the premise that begins with one party, in control of the state, unilaterally claiming exclusive representation over all the people.[89] In other words, the state is the "voice" of all workers.

In this labor market, widespread abuses and abhorrent conditions fill volumes of official government and NGO reports and regularly feature in the press.[90] Countless more go unreported or observed. In international law, China has yet to ratify the four labor rights conventions that the International Labor Organization defines as fundamental and that U.S. and other countries law recognize as a foundation of a market economy. The conventions China has not yet ratified provide for the freedom of association and right to collective bargaining, and for the abolition of forced labor.[91] China has ratified fundamental rights conventions establishing a minimum working age and prohibiting the worst forms of child labor, as well as those pertaining to non-discrimination in pay and in the workplace—both of which remain prevalent.[92] The prohibition of freedoms of association and collective bargaining are a key pillar of the authoritarian one-party political system in China, which delegates authority, on the frontlines, to express the People's "voice" to the All-China Federation of Trade Unions, or ACFTU, which counted some 280 million members in 2013, or 38 percent of China's overall labor force at the time.[93]

The ACFTU is not like worker organizations in other countries that do recognize the aforementioned basic human rights in ILO conventions. Workers in China do not have the right to form independent organizations in China outside of the ACFTU federation, nor do they have the right to select the federation's leadership through democratic means. Top leadership positions are ministerial level within China's governance structure, and the head of the ACFTU is an alternate member of the Communist Party's 30 member Central Committee—akin to the U.S. president's cabinet, if there were no separation of powers and checks and balances from the legislative and judiciary functions of government.

Nor do workers in China get to elect representatives at the factory level, where the process is controlled by firm managers—be it in a foreign-invested company, or an SOE—in conjunction with local political leaders. In both cases, the principle may in fact be the same "legal person" or at least a legal person under the formal or informal

influence of local officials; workers have no say in choosing who will be their representative voice.

China's workers do have some rights on paper. These are set out primarily in the 1994 Labor Law, the 1992 Trade Union Law (amended 2001), the 2008 Labor Contract Law (amended 2013), the 2008 Labor Dispute Mediation and Arbitration Law and the 2008 Employment Promotion Law.[94] Individual employees have the right to an employment contract, a minimum wage, a 40-hour working week with fixed overtime rates, social insurance covering pensions, healthcare, unemployment, work injuries and maternity, severance pay in the event of contract termination, equal pay for equal work, and protection against workplace discrimination. Workers also have the right to form an enterprise trade union, and the enterprise union committee has to be consulted by management before any major changes to workers' pay and conditions are made.[95] Every province is mandated to set a minimum wage that is not less than the local average wage; foreign-invested enterprises are required to pay "not less than 120 percent of the average wage paid by SOEs in the same line of business in the locality."[96]

These social protections do not cover workers in all sectors and occupations in the economy, but for the public sector, public enterprises, and foreign-invested enterprises. And, like other aspects of China's economy, enforcement of the rules of the labor market is at the local level, where officials and business interests are closely aligned. Even in China's expanding white collar and service economy labor markets, discrimination is prevalent. It is customary practice for job applicants to list their ethnic heritage (though others' surnames can be a giveaway), and for women to include photographs and sometimes specify their height and weight. However comprehensive these laws are on the books, they are not uniformly observed or enforced.

Instead of empowering employees, the ACFTU acts as enforcement for corporate and government interests. The 2001 Trade Union Law states that, "The trade union shall assist the enterprise or institution in properly dealing with the matter so as to help restore the normal order of production and other work as soon as possible."[97] Green shoots of civil society organizations—worker centers where workers can receive education on the laws and legal aid and their staff are routinely targeted for scrutiny and intimidation by a range of tactics. Workers seen interacting with workers centers can be targeted for dismissal, physical threats, and reportedly even threats delivered to family members in migrant workers' home communities that the person is "making trouble."[98] According to the *Financial Times*, in 2014 "Chinese authorities used public disorder charges to round up legal activists and constitutional reformers in a crackdown" on anti-corruption advocates, Nobel laureates, and worker-protestors organizing outside the official ACFTU for reasons of unsafe working conditions, denial of back wages, and fair compensation and benefits payments.[99]

In addition to the difficult conditions of work brought to light in high-profile cases like the suicides of Foxconn workers, wage theft and discrimination are common

complaints among employees.[100] Not only do employers withhold overtime pay, but routinely falsify their share of contributions to retirement saving and health care saving plans, which employees may not find out about until long after the fact.

Such complaints gave rise to a wildcat strike in April 2014 at Yue Yuen, a Taiwan owned company, the world's largest OEM shoe manufacturer. More than 40,000 workers went on strike for two weeks because Yue Yuen had under-contributed the social security payments for employees.[101] The Yue Yuen was a rare case. The stand-off between so many striking workers and management drew international attention, and resulted with people returning to work with restitution and seemingly with little retribution. Wildcat strikes like this are on the rise, according to official figures as well as independent data compiled by Hong Kong based labor NGO group China Labour Bulletin counted 1,378 non-ACFTU sanctioned incidents in 2014.[102] Most meet with darker outcomes reminiscent of the militant union-busting tactics in the turn-of-the-20th-century United States.

In response to increasing strikes, Guangdong province Standing Committee in September 2014 independently issued new regulations "to regulate conduct of collective negotiations, to improve the system of collective contracts, to protect the legal rights of employees and enterprises, and to establish harmonious and stable labor relations."[103] Although this reform marked a step forward in defining a right to collective bargaining and obligations of the parties, it did nothing to change the existing local ACFTU structures that prevent free association and democratic representation. As if to punctuate the significance of the change, even before the law went into effect in January 2015, the labor research center at Sun Yat Sen University in Guangdong, where legal scholars helped write the new law, was shut down by officials.[104]

3. Concluding Concerns for U.S. Policymakers

I will conclude with three areas of concern for U.S. policymakers.

First, challenges remain in many areas for China's economy to meet the market economy criteria where competition on a slanted playing field poses real costs to businesses, employment, and wages in the United States (and China's other trading partners). Although China's leaders should have the autonomy to pursue their own choice of development strategy, U.S. policymakers can make clear the costs and benefits of particular choices and structure incentives to move the will of policymakers toward internationally accepted norms of commercial and financial competition. This means retaining and using all possible leverage in managing the economic relationship with China by recognizing and highlighting the nonmarket features of China's economy and the costs these impose on Chinese people as well as on others in the global trade and production systems.

Second, U.S. policymakers—members of Congress in particular—should look carefully at what impact the proposed Trans-Pacific Partnership agreement will have

in strengthening the economic position of China's nonmarket institutions. Although proponents of the Trans-Pacific Partnership offer this trade and investment agreement, the agreement's incredibly weak "Rules of Origin" actually create a backdoor for content from outside the region—from China and other countries—to gain entry to TPP markets without being held to the standards of the agreement or offering reciprocal market opening.

These rules of origin specify how much content must be produced within TPP countries to qualify for tariff-free market access. High standards would ensure the benefits of trade flow to partners offering reciprocal market opening. NAFTA required more than 60 percent regional content for the North American automotive market. TPP, in contrast, sets the origin threshold so low that even if the vast majority of value-added content came from countries outside, it may be able to get preferential treatment under TPP. Most industrial and consumer goods will need just 30 percent content, while food and chemical products will need 35-40 percent.

Once combined with sufficient other qualifying inputs—other parts or even minor manufacturing processes, outside content can be counted as 100 percent of TPP origin. For example, raw steel tubing from China—where state-owned producers are currently glutting global markets, fueling China's epic smog crisis and accelerating global climate change—can be imported to a TPP country, threaded or heat-treated, and magically transform to a "Made in TPP" steel. Imagine such a part is combined with another 70 percent of non-TPP content to make a new good. Quickly, more than 90 percent of the value can come from outside TPP and still qualify for benefits under the agreement. This is the worst of both worlds: goods sourced from countries that do not commit to TPP's labor, environment, and other standards or reciprocate market opening to our goods can still get free access to TPP markets.

TPP partners Australia, New Zealand, Singapore, and Malaysia have already promoted China to market economy status under WTO rules, meaning that four key partners will be admitting Chinese content without considering the potentially unfair origins of such goods.

Third, ongoing negotiations between the United States and China for a bilateral investment treaty, or BIT, presents serious economic risks for the United States by giving Chinese enterprises access to the extremely unfair and anti-democratic investor-state dispute settlement mechanism that exists in TPP and similar earlier U.S. trade and investment agreements. Certainly China's treatment of foreign investors shows much room for improvement, but if the U.S.-China BIT follows the model favored by USTR negotiators foreign investors will be granted a new set of property rights allowing them to sue governments in private international tribunals over pretty much any law, regulation, or government decision for compensation when these rights are violated, even if government actions are nondiscriminatory. In essence, any change in policy or regulation after the agreement takes effect can be subject to such disputes.

From the U.S. perspective, this will mean that multinational companies will gain even stronger tools and incentives for moving investment and jobs offshore to low-standard countries. The BIT will allow U.S.-based multinationals to dispute future policies in China aimed at cleaning up environmental pollution, improving working conditions and raising wages, or ensuring consumer safety and public health. This is not hypothetical risk, but the track record of such investor dispute systems already in force. In a case using NAFTA's similar investment provisions, arbitrators ordered Canada to pay American waste disposable company S.D. Myers $5.6 million because it prohibited the export of toxic industrial waste—exports that were banned by international treaty and applied to Canadian and foreign firms alike. The company's lawyer boasted, "It wouldn't matter if a substance was liquid plutonium destined for a child's breakfast cereal. If the government bans a product and a U.S.-based company loses profits, the company can claim damages."

Policymakers should also be aware that this dispute settlement mechanism is also a two-way street, meaning Chinese enterprises that are expanding their overseas investment footprint in the United States will gain a much more favorable mechanism institution to challenge policies of the federal, state, and local governments in the U.S. As China's economy has developed, so too has its willingness and ability to bring trade disputes under the WTO. U.S. policymakers should assume that this will be true of a potential BIT as well, and contemplate the full range implications from including such flawed investor protections and adjudication mechanisms in any international agreement, let alone with China.

Figure 1: Investment in State-involved, Domestic private, and Foreign non-state enterprises

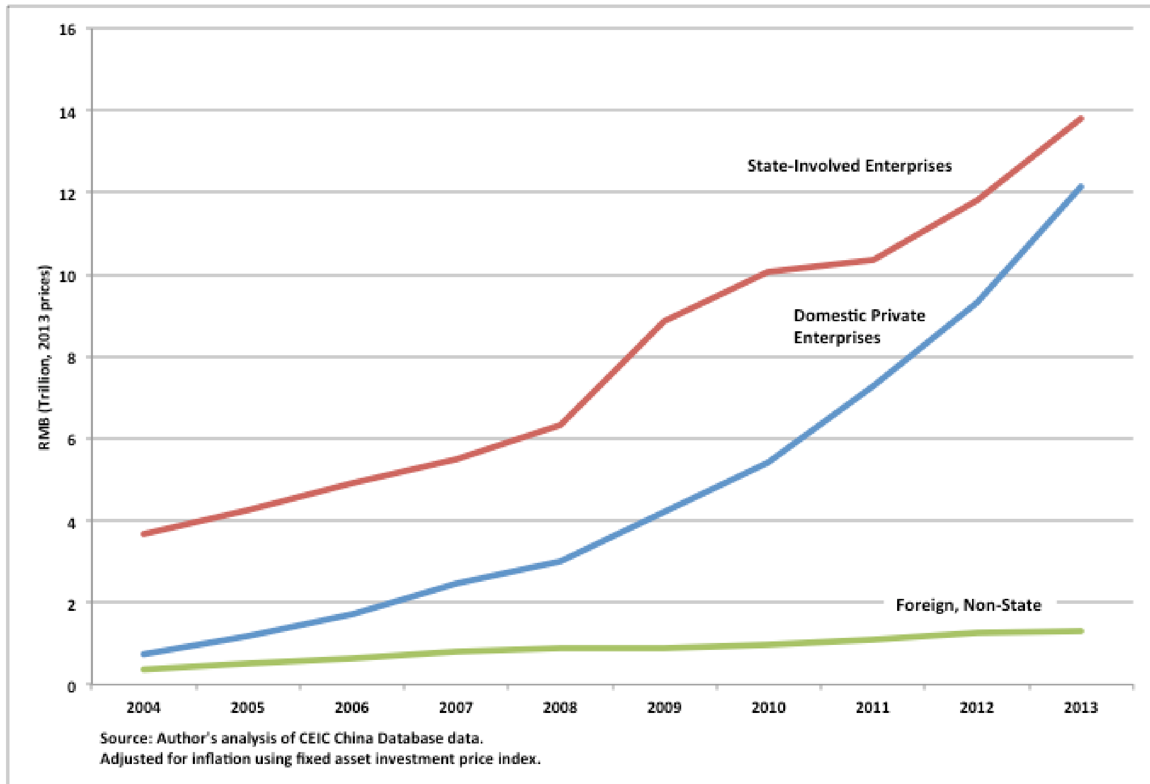
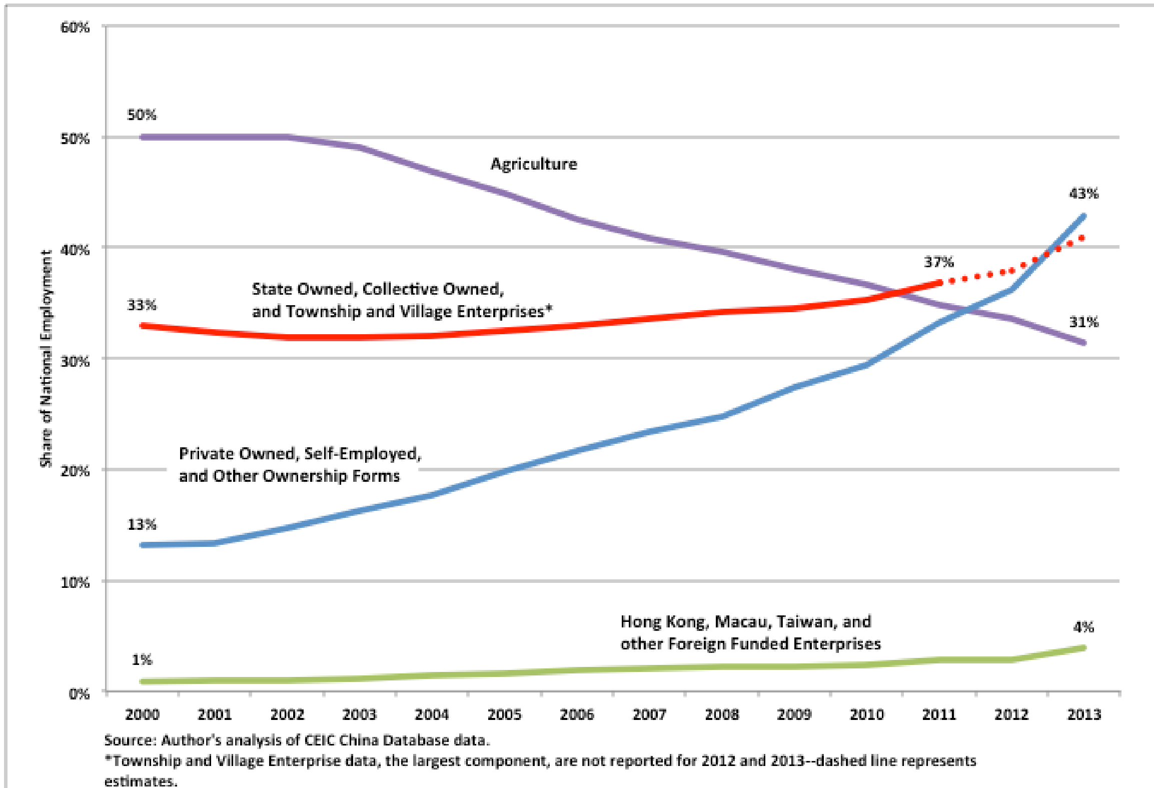


Figure 2: Employment by Business Ownership Form and in Agriculture



Source: Author's analysis of CEIC China Database data.
*Township and Village Enterprise data, the largest component, are not reported for 2012 and 2013--dashed line represents estimates.

Figure 3: Currencies in China's Exchange Rate Basket

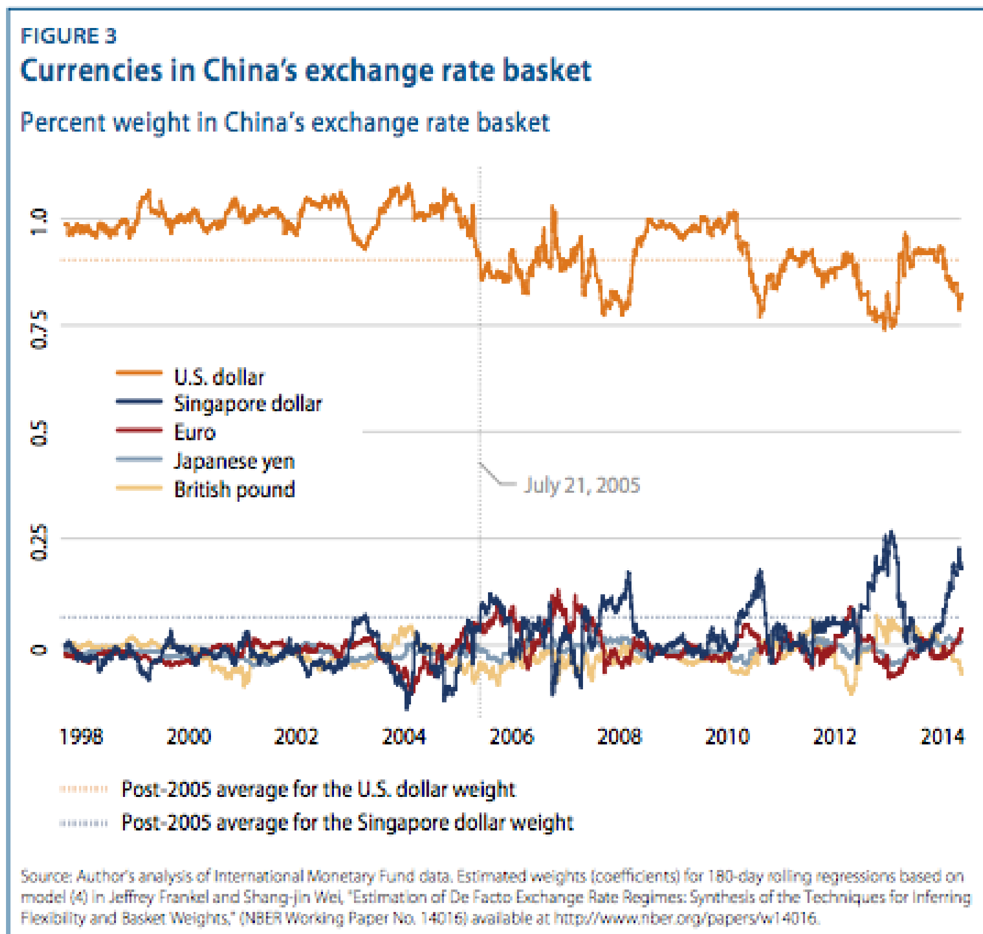


Figure 4: Effect of Price Shocks on World Coal Prices

Figure 4A: Effect of Change in Australian Coal Price

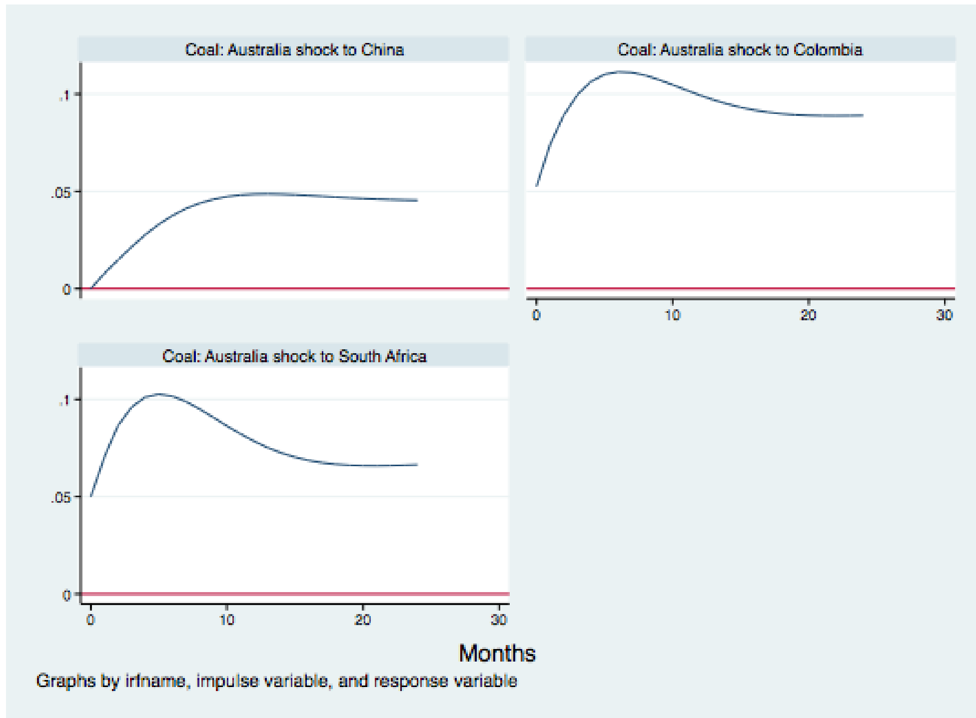


Figure 4B: Effect of Change in South African Coal Price

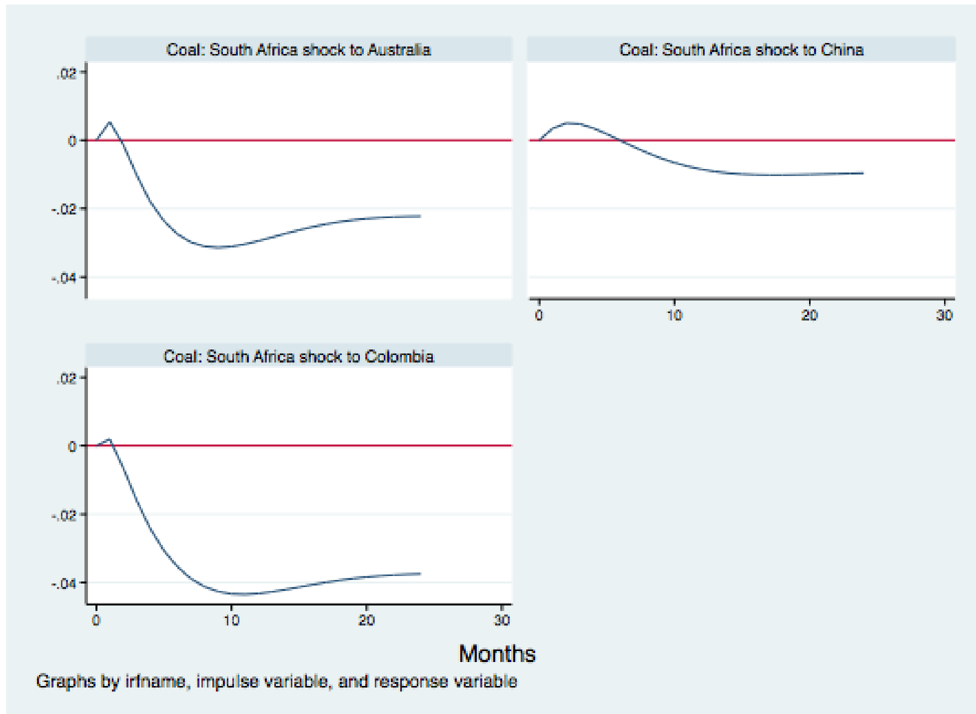


Figure 4C: Effect of Change in Chinese Coal Price

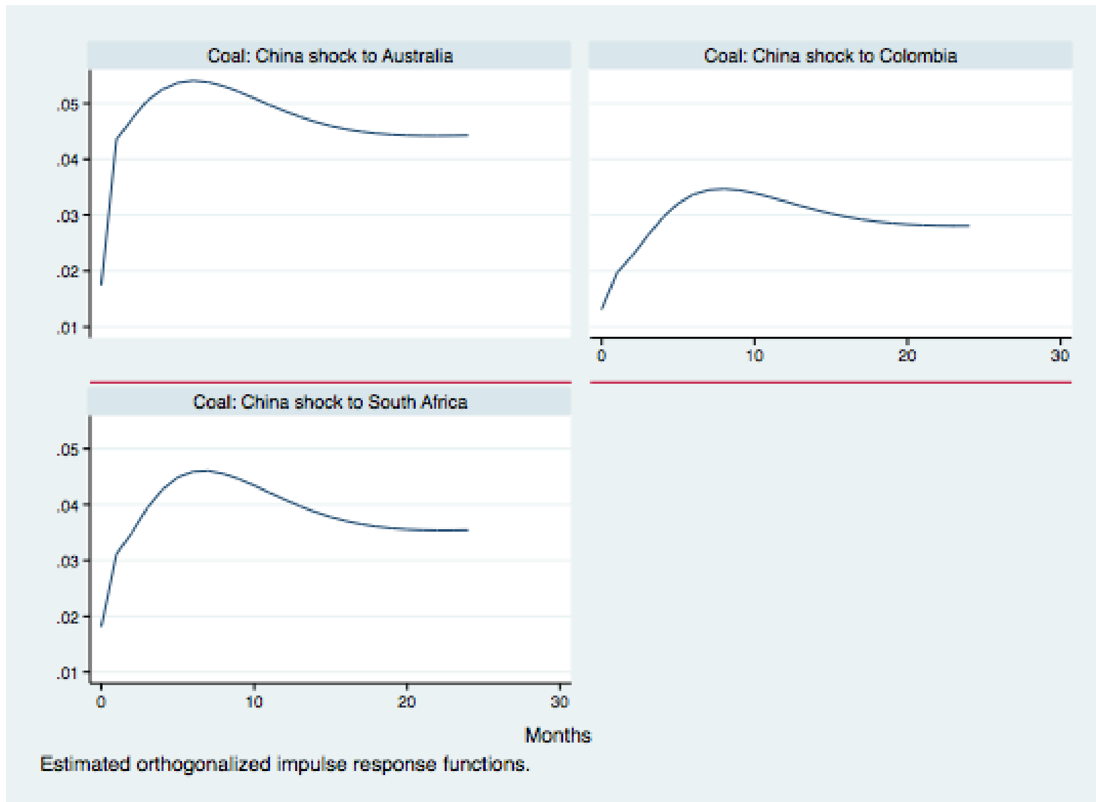


Figure 5A: Effect of World Iron Ore Price on China Price

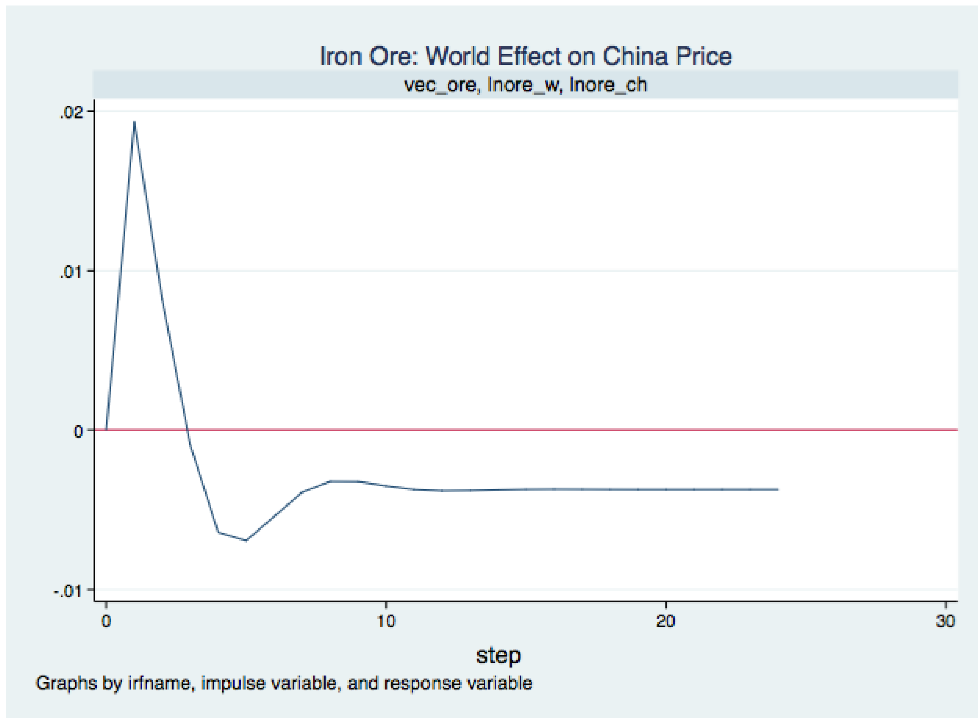
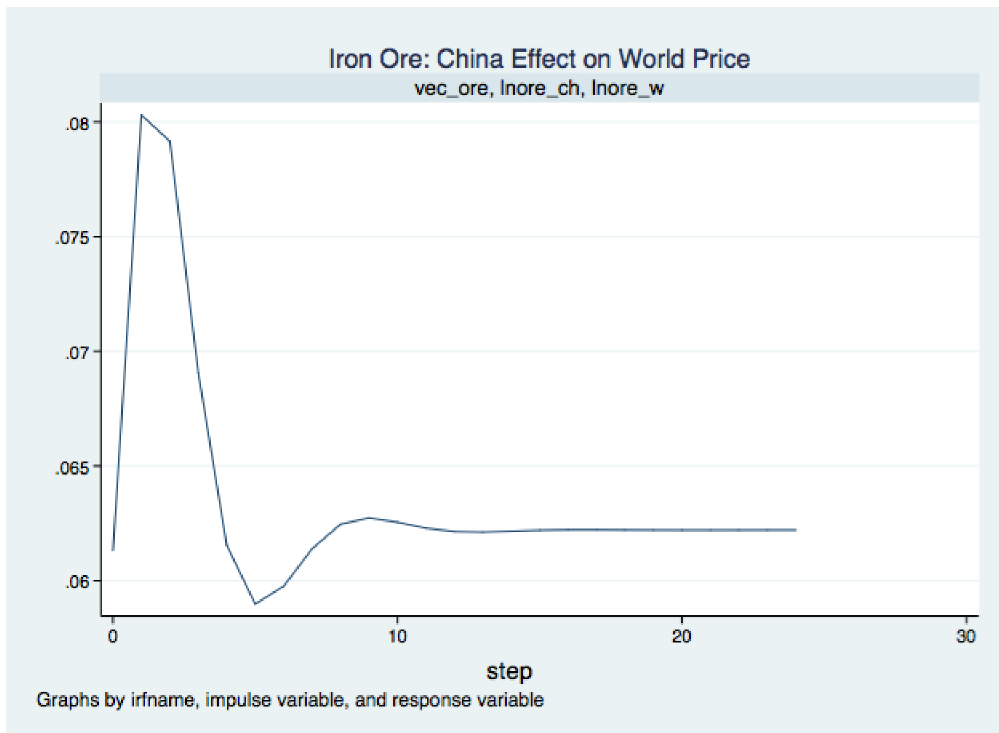


Figure 5B: Effect of China Iron Ore Price on World Price



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