

***ENTERPRISES, INDUSTRY AND INNOVATION
IN THE PEOPLE'S REPUBLIC OF CHINA***

***Questioning Socialism From Deng To
The Trade And Tech War***

China as the first/most relevant example of a new class of socioeconomic formations

2 key features of contemporary China

- the gradual evolution of **enterprise forms**
- the development of a modern national innovation system (**NIS**)
- ✓ processes cannot be adequately interpreted as a pure manifestation of the simple State vs. Market opposition
- ✓ **complex and evolutionary interactions** between
 - **state-led** industrial and other development-oriented **policies**, on one hand
 - (relatively) **automatic market mechanisms** working in a **quasi-by-default** manner, on the other hand
- constitute the **essence of China's distinctive economic model**

Law of value, market compatibility, planning compatibility

Permanent **operativeness of the Law of Value**

Constraints apply

- ✓ both to **capitalism and socialism**
- ✓ limiting **planners' degrees of freedom**

In a **system strategically moving away from capitalism and towards socialism** the **law of value applies more stringently** to those sectors that **concentrate mostly on commodity production** and exchange activities

➤ **Market compatibility, planning compatibility**

To maximize the **advantages of public property**

- *planning-compatible*
- but **flexible and relatively self-propelling forms of socialist-oriented social relations of production and exchange**
- ✓ particularly so in partly competitive and not very strategic sectors
- In other words,

Market compatibility and planning compatibility to be made reciprocally compatible: not easy!

Capital is value and has to be treated as such

Socialist ownership must be realized by means of

- ✓ **Complex, multi-layered chain of command**
- ✓ deals with **capital** in its **own proper and distinctive intrinsic form:**
- ✓ **Value**

Large public productive assets should chiefly be managed through **multiple layers of holding bodies**

- Only **managers and workers** in productive **enterprises** have access to **first-hand firm-level** and **production-line information**
- Thus, these actors shall **directly focus on production**, the lower link of the overall value chain.
- Conversely, **higher-echelon governance** shall **normally and routinely*** operate **mainly via indirect financial levers**, pursuing **monetary-denominated objectives**
- **Maintain, enhance the value** of public industrial capital, thereby striving to **maximize public wealth**

** In a longer term context, the **plan is in command**, creates and shapes markets and prices*

Non-Capitalist Market-Oriented Enterprises (NCMOEs)

NCMOE concept

- differ from classic **private** enterprise(POE)* - a **profit-maximizing** productive unit that **hires non-family labor** and is endowed with **ample property rights**.
- **minimum common kernel shared by** many variegated forms of enterprises that have populated the landscape of China's complex journey in the market-socialist era, and still constitute the **backbone** of PRC's economy*

➤ **Market-oriented**

- ✓ Sell in market/s (some monopolies , quasi-monopolies).
- ✓ some goals that are **complementary to** or totally **different from profit maximization**

Non-capitalist

-various forms of **non(exclusively)- private ownership**

SOEs State-controlled Enterprises (SCE) Coop Collectives Urban

Household-based Farms (HF), TVEs Rural

Cooperative Shareholding Enterprises? Huawei?

Core

- **SASAC-controlled central SOEs:** non prioritarily market-oriented
- **SCE:** highly corporatized, **prioritarily market-oriented**

*restrictive functional definition of POEs

SCEs and SOEs

In a developing socialist-oriented country like China *utmost priority in XXI century*

- **Strengthening, innovate and revitalize the socialist core of PRC foundations**
- ✓ *A fortiori*, this set of strategic questions is becoming more salient under the new Cold-war-like geopolitical *new normal* presently prevailing worldwide

➤ SCEs in relatively competitive markets

- **Growth, internationally competitive national champions, market-oriented innovation/tech progress**
- ✓ **Constraint:** maintaining **healthy financial** and **profitability** conditions
- **Strategic role : medium** (sector-specific and firm-related)

➤ SOEs in natural or quasi-natural monopolies

- **Smoothing and nudging the functioning of the rest of economy**
- **Basic innovation**
- ✓ surpluses in order to provide **dividends to state coffers**
- **Strategic role : high** (systemic, economy-wide)

Both additional **key macro function**

- ✓ **anti-cyclical stabilizers**
- ✓ structural, growth-enhancing **investors of last resort.**

The state advances the private sector retreats

- The 2007-2008 world capitalist crisis forced China to react swiftly, launching a **powerful anti-cyclical expansionary investment drive** that necessarily pivoted on **directly and indirectly state-controlled industrial firms**
- The **massive channeling of huge investment** resources towards **public industry** led to a **new stage** in the **traditional debate** between **more and less market-oriented** observers and social scientists
- Under the **progressive hardening** of the external geopolitical environment, eventually culminating with the US launching of the **trade and tech war** in 2018, these controversies eventually reverberated in the progressive **re-orientation and firming up of the Party's strategy** towards a **more complex and self-reliant development strategy**
- (relative) **retreat of private industry** , **enhanced dominance of the state-owned and state-controlled sector** of the economy

National Innovation System (NIS)

PRC's utmost priority

To achieve a **smooth interrelation** among the various sectors and layers of **generation and diffusion of knowledge** through a **pragmatic blend of planning and market** mechanisms.

- China's innovation strategy is **peculiarly Chinese** in at least **2 crucial aspects**

1. PRC's sheer **size** + (market-compatible yet) largely **command economy**

allowed to build up a **big NIS** that

- **ranks first worldwide according to the absolute level** of many indicators (i.e., the number of R&D personnel, the number of patents)
- ranks **second** (after that of the US) according to the **holistic criterion of evaluating its overall innovation potential**. In this respect, it is important to remark that China has accomplished this feat at a **stage when it still lags far behind all traditional technological leaders in terms of per capita educational, technological, and research achievements, as well as in terms of per capita income**
- ✓ China's NIS has progressed along both the quantitative and the qualitative dimension **much faster than the economy as a whole**, making **PRC the only extraordinary outlier of its kind among all countries in the world**
- ✓ A NIS of unique absolute size and of a relative size and comparable quality close to those of the most advanced capitalist countries, **while its overall degree of economic development is still that of a middle-level developing country**

R&D expenditure has skyrocketed

- shifting **mostly towards productive enterprises**, following a trend similar to that of Western technological leaders.
- However, most of the (still insufficiently developed) **basic and applied research** - the activity with the strongest impact on truly radical innovation - is **still carried out by public universities and research centers**.
- ✓ Conversely, most of China's R&D is less intrinsically innovative and short-term market-oriented, and a large part of it is carried out by privately-owned enterprises (POEs)
- Having reached this stage of development, China faces the new challenge of **re-equilibrating R&D's internal balance**, supporting mostly **basic and applied research**
 - In terms of input/output efficiency, the overall outcomes of the huge R&D effort in China appear so far to have fallen **somewhat short** of the extraordinary achievements realized decades ago by the **first Asian NICs**.
 - However, **R&D outputs have risen very rapidly**, and so did **labor productivity**, high-tech production and exports, and industrial overall productivity, measured both by engineering criteria and by the intrinsically flawed but still popular and (usually) roughly and heuristically useful economic concept of *total factor productivity*, or **TFP**.

POEs vs SOEs/SCEs innovation

- POEs exhibit a high propensity to engage in R&D (**mostly in the D component**) and **more ability to translate it into new saleable products**. Their innovative capability appears to have been improving more rapidly than that of SOEs/SCEs . **Yet, most POEs enterprises still fail to carry out any R&D**, and most private entrepreneurs are risk-averse and not particularly tech-savvy.
- However, SOEs/SCEs are actually performing **better than private ones at least along some dimensions** of overall innovative capability. **2 elite groups** of state-controlled enterprises have been performing best SOEs/SCEs
- ✓ **Very large SASAC-controlled SOEs/SCEs**. These firms are **highly prioritized** by planners, and follow a **long-term strategy** aimed at maximizing the overall systemic impact on the development of China's economy as a whole.
- ✓ SOEs/SCEs run through a more **indirect, multi-tiered and longer command chain**. These corporatized entities operate **autonomously in competitive markets**, and in the domain of S&T and R&D policies exhibit a **behavior that is intermediate between that of SASAC enterprises and that of POEs**

My own **empirical research**, carried out on the basis of official Chinese statistics, shows that the research capabilities of **NCMOEs** have made important **progress**, and **along with other publicly-controlled organizations** they are responsible for the **bulk of PRC's R&D** and innovation activity

2 China's specific synthesis of market and state mechanisms

For lack of a better phrase, and stressing the **idiosyncratic and heuristic** usage of the term, we refer to this mechanism as **21st century Chinese *market socialism***

- It confers on its leaders, at least potentially, an **outstanding advantage** in the crucial area of **strategic planning**, i.e. a superior capability to command the allocation of national resources, in order to earmark them strategically towards key goals accordingly to a clear set of priorities (see previous slide). This superiority is **particularly apparent** in the **decisive area of innovation**
- **3** distinctive characteristics that make this PRC's NIS **unique** and **strongly *socialistic*** in nature (**more so** than probably any other part of the Chinese socialist-oriented socioeconomic system), to a degree that **qualitatively sets it apart** from those of both developed and developing capitalist countries:
 - ✓ the ability and determination on the part of the state to **channel towards R&D a very high and growing share of national surplus**;
 - ✓ the **predominant role played by non-private actors** such as public universities, research centers, government organizations, SOSHEs and other non-capitalist market-oriented enterprises;
 - ✓ the scope, impact, relevance and ambition of **long-term national R&D and innovation plans**

Nevertheless (**as opposed to USSR, Cuba**) such a powerful interventionist role of the Chinese state in the task of developing and shaping the NIS is carried out in a *market-compatible* strategic framework, utilizing **heavy-handed planning tools along with price- and incentive-based policy instruments**.

NIS: conclusion

- The **core component of China's NIS** is still constituted by **fully public, non market-oriented organizations**. Virtually all basic research and the bulk of applied research in China is carried out by public universities and research centers. Central SO(SH)Es are also evolving increasingly capable to engage in strategic research activities, in order to achieve systemic breakthroughs in key scientific fields.
- China's NIS is developing along a **dual** but not necessarily contradictory **path**:
 - ✓ **POEs and market-oriented SOSHEs focus on market-oriented development**, are responsible for **most** of the recognizable **R&D spending** and **patented national innovations**
 - ✓ **Higher-echelons of the NIS** - public universities and research centers, many giant SASAC-managed conglomerates and some other large SOSHEs - are more **strategic-oriented**. Since the mid-2000s these strategic state-controlled industrial enterprises have financially and institutionally **much stronger**. Many of them have been **restructured and merged**, and participate in several large national and local R&D and innovation **plans***
- China's **overarching goal** is to achieve a **decisive qualitative leap** in its NIS, drastically **reducing its technological dependency** on foreign powers and developing a systemic ability to generate world-class **indigenous innovations**

* The scope of the Made in China 2025 plan is **more ambitious** than those of its predecessors

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2 broad conclusions

- **Crucial and hegemonic role of public ownership** on the core means of production, in the framework of a **harmonic market context where different types of property coexist**.
 - ✓ The latest rounds of industrial reforms have strived to modernize and sharpen the effective realization and **operationalization of public ownership and its institutional modalities**
 - ✓ To this end, the PRC has been gradually **superseding old-fashioned** and unsophisticated administrative command tools, relying **more and more on indirect and value-based forms of strategic control** on productive assets.
 - This transition has been steered along with the opening of ample market opportunities for a fast-growing domestic private sector, while the weight of foreign investors has moderately declined

- The second point is constituted by the **strategic centrality of technical progress and innovation** and the purposeful endeavor for their **endogenization**
 - ✓ to overcome China's knowledge-based dependence on foreign powers.
 - ✓ the venture for becoming a first-class technological power and a breeding ground of indigenous innovation revolves around the **quantitative and qualitative enhancement** of China's **NIS**.

Socialism = Development of productive forces (only)?

NO philosophically ethically etc.

- A **necessary** yet **insufficient** condition for a more holistic concept of socialism
- **Socialism** is **much more** than public ownership and development of productive forces
- ✓ (like revolution) socialist development is **not a dinner party**
- ✓ (unlike revolution) belongs to the **longue duree** dimension of history

My focus here is (almost) only on development of productive forces

Almost nothing on

- ✓ Distribution/inequality
- ✓ Environment

Nothing on

- ✓ Freedom
- ✓ Participation

Socialisticity

Capitalism/Socialism difference/contraposition real but **not dichotomist**

- **Socioeconomic systems** can be synthetically described according to their
- ✓ position in a **multidimensional space**
- ✓ determined by **conceptual vectors** that
- ✓ portray **key** structural economic and social **characteristics**
- ✓ Such characteristics have both **positive and normative components**, and can be quantified *strictu sensu* only in some cases, while in others they can be evaluated only on the basis of heuristic assessments that are arbitrary to some extent

Different real-world socioeconomic systems can also be appraised in a **comparative fashion**

Socialism with Chinese Characteristics?

➤ **Is there such a thing?**

➤ **What does it mean?**

A qualitatively different epistemological level

✓ given the **peculiar teleological foundations of the PRC**

✓ on the basis of which the **CPC justifies its leadership** and what it regards as its historical mission

▪ An evaluation of China's development trajectory **cannot skip it altogether**

▪ However, of course, it has to be addressed with particular **intellectual modesty**

The argument leads to a **qualified provisional validation** of CPC's claim