



MEASURING DEVELOPMENT IN THE 21ST CENTURY

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Volume 1 – The Economic Dimension

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ABSTRACT

This report seeks to reconsider the concept of the “developing country” by focusing on the economic dimension. We argue that the legal category of “developing country” no longer necessarily aligns with the economic reality of the states that claim or contest that status. The binary classifications opposing developed countries and developing countries have become largely obsolete, insofar as the global economy is now structured by hybrid powers.

This report proposes a structured assessment of the degree of development based on a coherent set of criteria. The aim is to compare the maturity and resilience of the national economic trajectories of three major economies: China, the United States and France. This is done by evaluating the capacity of these economies to produce, finance, stabilise and increase the complexity of their productive systems, based on a coherent set of ten macroeconomic, financial and trade criteria.

The results highlight the multidimensional nature of development. Standard of living is an essential foundation, but it is only fully meaningful when considered in relation to the quality of the productive structure, debt sustainability, external financial credibility, the capacity to access international capital and the position in global trade and monetary flows. Distinct profiles emerge from the results obtained. The United States emerges as a systemic frontier economy, whose financial and monetary centrality enables it to absorb imbalances that would be unsustainable elsewhere. France embodies a mature, institutionally and socially stabilised developed economy, but whose productive dynamism remains more moderate and whose strategic autonomy is partially pooled. Finally, China emerges as a hybrid advanced economy, endowed with manufacturing power and productive complexity comparable to those of the major industrial economies, but still engaged in an incomplete process of financial, social and institutional maturation. Rather than disparities in nature, these differences reflect distinct structural choices illustrating the hybrid dimension of the “developing country” concept.

TABLE OF CONTENTS

Abstract.....	i
Endorsement.....	iv
Introduction.....	1
I. Constructing an Economic Development Index	4
A. A Multifactorial Approach to Development.....	4
1. Development As a Set of Indicators	4
2. Development, Maturity and Economic Resilience.....	4
3. Limitations of Traditional Indicators Taken in Isolation	4
B. General Methodology of the Index	5
1. Logic for Selecting the Criteria.....	5
2. Weighting, Normalisation and Scoring Principles	6
3. Limitations	7
II. Measuring Economic Development	8
A. Standard of Living and Socio-Economic Effectiveness: A Combined Reading of GDP and the HDI.....	8
1. Gross Domestic Product: A Conventional Indicator that Should Be Placed in Perspective	8
2. Similar Levels of GDP, Various Socio-Economic Effectiveness	10
3. Score for Standard of Living and Socio-Economic Effectiveness.....	11
B. The General Price Level: Between Stability and Structural Balance.....	13
1. Control of the General Price Level: A Source of Macroeconomic Predictability.....	13
2. The Inflation Rate As a Reflection of the Macroeconomic Environment.....	14
3. An Informative but Secondary Criterion in Assessing Economic Development	17
C. Growth Dynamics: Between Catch-Up and Convergence in the Light of Inflation.....	18
1. The Relationship Between Growth Rates and the Consumer Price Index.....	18
2. The Growth Rate and the Development Trajectory.....	18
3. A Trajectory Criterion with a Limited Scope for Interpretation.....	20
D. From Capital Accumulation to Productive Efficiency: Investment and Total Factor Productivity	21
1. From Investment Intensity to Productive Efficiency.....	21
2. Contrasting Productive Trajectories: Accumulation, Diffusion and Stagnation	22
3. A Key Criterion of Economic Maturity	25
E. Trade and Current Account Balances: External Balances of Economic Models	26
1. External Balances As a Structural Lens for Analysing Economic Models.....	26
2. Different models of international integration.....	27
3. An informative but secondary criterion for assessing economic development.....	30
F. Foreign Exchange Reserves and Financial Credibility	31
1. External Soundness and Financial Credibility Through the Balance of Payments.....	31
2. From Raw Financial Power to Systemic Credibility.....	32

3.	Financial Credibility As a Key Criterion of Financial Maturity.....	35
G.	Long-Term Sustainability of the National Debt.....	36
1.	Debt As a Trajectory Constraint and Sustainability Test	36
2.	Heterogeneous Debt Configurations.....	37
3.	A Test of Long-Term Sustainability and Credibility.....	40
H.	Access to International Finance and Capacity to Mobilise Capital.....	41
1.	Access to International Capital As an Indicator of Financial Status	41
2.	From the Safe-Haven Economy to the Administered Economy: Differentiated Access to Capital	42
3.	A Highly Revealing Criterion of Advanced Development	43
I.	Relative Trade and Monetary Power	44
1.	Centrality in Global Flows and Monetary Influence.....	44
2.	Differentiated Forms of International Power	45
3.	An indicator of power rather than economic maturity.....	47
J.	Structural Sophistication of Economies: Economic Complexity and Diversification.....	48
1.	Complexity and Diversification As Indicators of Structural Development.....	48
2.	Contrasting Trajectories of Moving Up the Value Chain	49
3.	A Structural Criterion for Advanced Development	51
K.	Summary of Scores and Overall Index	52
III.	What the Index Reveals: Typologies, Pressures and Trajectories	55
A.	Three Contemporary Forms of Economic Development	55
1.	The United States: A “Frontier” Advanced Economy.....	55
2.	France: A “Mature” Advanced Economy	56
3.	China: A “Hybrid” and “Systemic” Advanced Economy	57
B.	Visualising Development Gaps	58
1.	Comparative Radar Chart of Economic Development	58
2.	Cross-Analysis of Strengths and Weaknesses	60
C.	Development As a Capacity for Resilience.....	61
1.	Two-Dimensional Projection of Economic Models	61
2.	Productive Capacity Versus Institutional Strength.....	61
D.	The Triangle of Incompatibilities Applied to the Development Models	62
1.	Efficiency, Sovereignty and Inclusion: Three Competing vertices.....	62
2.	Historical Trade-Offs and Economic Identities	63
E.	The Convergence of Pressures and the Hybridisation of the Models.....	64
1.	Climate, Technology and Geopolitics: Cumulative Constraints.....	64
2.	Towards a Constrained Convergence of Development Trajectories.....	64
3.	The Outlook to 2030: Hybridisation or Instability?	65
Conclusion.....		67

ENDORSEMENT



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I have long learned, through sovereign risk analysis, to be cautious of overly simple categories. They offer reassurance, but rarely explanation. Describing a country as “developed” or “developing” often freezes a moving reality, whereas the robustness of a development model is ultimately revealed over time, under constraints, and in the face of both domestic and external shocks.

This is why I find SKEMA Publika's report *Measuring Development in the 21st Century*, written by a multidisciplinary team led by Amaury Goguel, particularly valuable and original. The report does more than challenge the limits of GDP, per capita income, or international classifications. It proposes another way of understanding development: not as a status, but as a capacity for resilience. In my view, this is one of its most valuable contributions. A developed economy is not simply a wealthy economy; it is an economy capable of financing its strategic choices, preserving macroeconomic and financial stability, maintaining market access, investing in its productive base, ensuring a balanced distribution of the gains from growth, and absorbing shocks without systemic disruption.

The methodological, multifactorial, and comparative approach adopted by the report sheds light on the structural differences between the United States, France, and China. It shows that the former benefits from exceptional financial centrality; the second illustrates stabilising institutional and social maturity; while the third combines industrial power, state-directed capital allocation, and an ongoing process of financial maturation. One of the study's distinctive strengths lies in recognising that no development trajectory is universally optimal and that all models rely on trade-offs.

In this respect, the report offers an innovative perspective and contrasts with predominantly quantitative approaches to country risk analysis: it places greater emphasis on long-term dynamics and reintroduces internal coherence and vulnerability into the assessment of development. For policymakers, investors, analysts, and students alike, this framework offers far more than a classification system. It provides a method for understanding how nations sustain themselves, adapt, and at times transform in an uncertain world.

INTRODUCTION

In September 2025, China announced that it was giving up its status as a developing country within the World Trade Organization (WTO). By doing so, Beijing accepted that it would no longer benefit from this status in future trade negotiations. This decision was welcomed by the United States (US) and the European Union (EU), as both consider that, as the world's second largest economy, China should no longer benefit from the advantages associated with this status, including less stringent requirements in terms of market opening and longer deadlines for implementing trade agreements.¹ Despite this announcement, Chinese Prime Minister Li Qiang stated that China remains a middle-income country and therefore that "China will always be a developing country"². This statement underscores that the concept of development is neither fixed nor universal. It varies according to institutions, strategic interests and historical contexts.

This diplomatic episode reveals an underlying tension. The legal category of "developing country" no longer necessarily aligns with the economic reality of the states that claim or contest that status. The world's second-largest economy can simultaneously relinquish this status at the WTO and assert that it remains a developing country. The concept of development thus appears fluid, relative and dependent on the criteria used.

A clear conclusion emerges: binary classifications opposing developed countries and developing countries have become largely obsolete. They rely either on legal criteria of self-declaration (as in the WTO) or on income thresholds per capita, both of which are incapable of capturing the complexity of contemporary economic trajectories. This status-based approach reduces development to a partial picture, often disconnected from actual productive, financial and technological dynamics.

Its effects extend beyond semantics alone. By locking in categories that no longer correspond to actual economic balances, it weakens the very functioning of international institutions. These institutions struggle to adapt their rules to powers whose economic weight contradicts their formal status, which creates a growing mismatch between institutional architecture and economic reality. The result is a relative loss of effectiveness and legitimacy, even though these institutions remain central in the absence of a credible alternative.

The global economy is now structured by hybrid powers. Some combine advanced technological maturity and persistent institutional fragilities. Others run huge trade surpluses while also presenting internal financial vulnerabilities. Others still boast strong industrial power but only intermediate levels of income per capita. This hybridisation of development models blurs traditional categories and renders any strictly status-based interpretation of development insufficient.

This transformation of economic structures is compounded by the growing complexity of open and interconnected societies. Financial, trade and technological flows now move at a

¹ PERRIER (A.), "Commerce mondial : la Chine accepte de renoncer à certains de ses privilèges", *La Tribune*, Sept. 24, 2025, <https://www.latribune.fr/article/economie/international/1511496690340714/commerce-mondial-la-chine-accepte-de-renoncer-a-certains-de-ses-privileges>.

² BUTLER (E.), "La Chine renonce à son statut de pays en développement au sein de l'OMC", *fr.euronews.com*, Économie, Sept. 24, 2025, <https://fr.euronews.com/business/2025/09/24/la-chine-renonce-a-son-statut-de-pays-en-developpement-au-sein-de-lomc>.

speed that erodes the traditional boundaries between centre and periphery. Even economies classified as “developed” now exhibit internal vulnerabilities that no longer correspond to the homogeneous image associated with this category.

In this context, the question is no longer simply which status a state claims, but **what it now means to be a developed or developing country within a global economic order undergoing reconfiguration.**

In response to this finding, a number of initiatives have already attempted to move beyond the strictly economic measurement of development. In 2008, the Stiglitz Commission suggested broadening the assessment of economic performance to include social progress and well-being. Other academic and institutional research has highlighted the limitations of GDP as a single indicator. However, although influential, these contributions have not led to a consensual reform of international categories, nor to the emergence of a stable operational framework capable of determining the actual degree of development of states.

This observation points to a methodological requirement. A status-based or unidimensional approach must therefore be replaced with an integrated analytical framework capable of capturing the many dimensions that shape development in the 21st century. The development of a nation cannot be reduced solely to the accumulation of wealth measured by income per capita. It must be approached as a coherent set of complementary dimensions (economic development, human development, institutional development, technological development, strategic and environmental development).

With this in mind, this report proposes a structured assessment of the degree of development based on a set of coherent criteria. The aim is not to establish a normative ranking, but rather to compare the maturity and resilience of national trajectories. The analysis focuses on three major economies (China, the United States and France), selected for the diversity of their models and their centrality within the contemporary international economic order.

These countries were selected according to a comparative analytical logic. China was chosen because of its status as the world’s second largest economic power and because of the enduring controversy surrounding its institutional positioning as a “developing country”. The United States sits at the opposite end of the spectrum, as the world’s leading economic and financial power, and is often regarded as the implicit benchmark of the developed country model. France, finally, represents the case of an advanced European economy embedded in an integrated regional architecture, introducing an intermediate perspective between systemic hegemony and hybrid emerging power.

In this first volume, the analysis focuses on the economic dimension of development. This is done by evaluating the capacity of these economies to produce, finance, stabilise and increase the complexity of their productive systems, based on a coherent set of ten macroeconomic, financial and trade criteria. This dimension constitutes the analytical foundation of the index proposed here, which will later be complemented by the human, institutional, technological, strategic and environmental dimensions.

This approach builds on earlier work that questioned the relevance of traditional classifications, particularly the SKEMA Publika note by Thomas Deconstanza on China's status within the WTO³ and Amaury Goguel's research on the limitations of quantitative models for sovereign risk management⁴. It reflects the same central insight: that legal categories or isolated indicators are no longer sufficient to determine the actual degree of development.

After presenting the conceptual and methodological foundations of the multifactorial index adopted here, the report applies this analytical framework to the three countries studied and derives a score for each, before concluding on the theoretical contributions revealed by this new approach.

³ DECONSTANZA (T.), *China's developing-country status: an anachronism in 2025?*, SKEMA Publika, July 2025, <https://publika.skema.edu/chinas-developing-country-status-an-anachronism-in-2025/>.

⁴ BOUCHET (M.-H.) & GOGUEL (A.), "The shortcomings of models in country risk management", *Journal of Risk Management in Financial Institutions*, Henry Stewart Publications, Vol. 12, No. 2, March 2019, pp. 125-144. <https://ideas.repec.org/a/aza/rmfi00/y2019v12i2p125-144.html>

I. CONSTRUCTING AN ECONOMIC DEVELOPMENT INDEX

A. A MULTIFACTORIAL APPROACH TO DEVELOPMENT

1. Development As a Set of Indicators

Constructing a comparative economic development index requires looking beyond isolated indicators. Neither gross domestic product, the growth rate, nor even the Human Development Index is sufficient to capture the complexity of contemporary economic trajectories.

Economic development cannot be reduced either to the level of wealth or to short-term economic performance alone. It refers to a structural capacity to produce, innovate, finance, stabilise, withstand shocks and convert growth into sustainable improvements in living conditions.

From this perspective, development is best understood as a **coherent set of complementary indicators** covering:

- standard of living,
- macroeconomic stability,
- productive capacity,
- external financial soundness,
- structural sophistication.

No single indicator taken in isolation can determine the actual degree of development.

2. Development, Maturity and Economic Resilience

Development, maturity and economic resilience are concepts that are often confused and they must consequently be distinguished. First, **economic development**, understood as the lasting improvement of economic and material conditions. Second, **economic maturity**, which refers to an advanced stage of institutional, productive and financial structuring. And third, **economic resilience**, defined as the ability to absorb financial, commercial or demographic shocks without systemic disruption.⁵

An economy may have a high level of wealth without being resilient, and it may be resilient without having completed its transition towards a fully mature model. The cross-analysis of these evaluation criteria is precisely intended to identify such hybrid configurations.

3. Limitations of Traditional Indicators Taken in Isolation

The traditional indicators used to estimate economic development (GDP, HDI, stocks) present structural limitations. First, they offer an excessive simplification of reality. Gross domestic product (GDP) measures an aggregated level of production, not the quality of that production. It distinguishes neither the nature of the activities that generate wealth, nor their

⁵ OECD, "Economic resilience", *oecd.org*, Topics, <https://www.oecd.org/en/topics/economic-resilience.html>.

technological content, nor their capacity to sustain a long-term trajectory. Growth driven by debt, speculative real estate activity or unsustainable fiscal expansion may inflate GDP without strengthening underlying development. The indicator aggregates heterogeneous flows without assessing their respective contribution to structural robustness. The Human Development Index (HDI) partly corrects this perspective, but remains centred on three synthetic variables (income, education and life expectancy). It ignores productive structure, financial soundness, trade integration and external dependence. It captures a social outcome, not the economic mechanisms that sustain it.

These indicators rely primarily on averages whose apparent neutrality can be misleading. National aggregates mask internal imbalances. A high GDP per capita may coexist with excessive sectoral concentration, growing financial vulnerability or structural external dependence. Similarly, a trade surplus may reflect weak domestic consumption or a savings imbalance rather than optimal competitiveness. Statistical averages create an illusion of stability, even though vulnerabilities lie within the very structure of the economy.

Finally, the traditional approach lacks dynamism and resilience. Most classic indicators are stock or level indicators. They are marked by inertia and base effects. These two indicators describe an established situation but provide little information regarding the capacity to absorb shocks. Yet advanced economic development is not characterised solely by a high level of wealth, but by the ability to absorb a financial shock, maintain access to financing, preserve monetary stability and sustain productive investment in a constrained environment. Moreover, an indicator may be high while still signalling latent vulnerability. Debt that is too low may reflect underinvestment, whereas excessively high debt may signal structural dependence. Interpretation depends on the institutional, monetary and historical context.

Thus, no universal threshold allows development to be defined mechanically. The normative rigidity of binary classifications cannot withstand the heterogeneity of contemporary trajectories. Moving beyond isolated indicators does not mean abandoning them, but rather interpreting them through a cross-referenced, contextual and hierarchical analysis capable of capturing the complexity of the hybrid economies of the 21st century.

B. GENERAL METHODOLOGY OF THE INDEX

1. Logic for Selecting the Criteria

The selection of the ten criteria forming the economic dimension of development is based on the assumption that advanced economic development emerges at the intersection of three complementary dimensions: the level attained, the quality of the productive structure and the capacity for systemic resilience. The criteria selected are therefore not simply juxtaposed but are intended to cover these three dimensions.

The first set of criteria aims to assess the observable level of economic development at a given point in time (GDP per capita, inflation, growth rate). These indicators respectively provide information on the average standard of living, the stability of the macroeconomic environment and the dynamics of economic catch-up or convergence. They constitute a

minimal descriptive foundation which, on its own, is not sufficient to characterise the nature of development.

The second set of criteria aims to assess the nature of the economic model under consideration. These include the investment rate and total factor productivity, the trade and current account balances, the share in world trade and the indices of economic complexity and diversification. These indicators make it possible to evaluate whether the observed wealth derives from simple capital accumulation, sectoral rents or a diversified and technologically dense productive base. The dynamic aspect of the evaluation is particularly evident in these criteria. Trade strength is considered meaningful only when accompanied by diversification and movement up the value chain. External balances are interpreted not as normative objectives but as indicators of macroeconomic coherence. These criteria make it possible to distinguish extensive growth from intensive growth, passive integration into the international economic system from systemic centrality, and sectoral dependence from structural diversification.

Finally, the third set of criteria seeks to measure the robustness of the system in the face of shocks, by examining foreign exchange reserves and errors and omissions, debt sustainability and access to international financing. These indicators assess not the level of wealth but rather the capacity to preserve it. Indeed, advanced development implies stable access to capital during periods of stress, debt that is institutionally and politically sustainable, and sufficient financial credibility to avoid disruptions to financing. The underlying assumption is that an economically developed country is not simply wealthy; it is capable of absorbing a global contraction without systemic disruption.

Each criterion was selected based on three requirements. First, analytical non-redundancy, in order to avoid two indicators measuring the same underlying reality in similar ways. Second, the discriminating capacity of the criterion, meaning that it must enable differentiation between economies of similar level. Third, a structural rather than cyclical reading of economic phenomena, with priority given to variables revealing long-term trajectories. This selection therefore deliberately excludes purely social indicators, which will be addressed later in the report. It also excludes variables that are too strongly correlated with each other, and measures based exclusively on international normative thresholds.

2. Weighting, Normalisation and Scoring Principles

The aggregation of criteria is based on explicit weighting, acknowledging that not all indicators carry the same structural significance. A qualitative hierarchy (low, moderate, strong or very strong) is assigned to each criterion according to its ability to distinguish sustainably between advanced economies and economies in transition.

Individual scores are normalised on a scale from 0 to 10 in order to make indicators that are heterogeneous by nature comparable. This normalisation is not intended to create an illusion of mathematical precision, but rather to provide a coherent framework for relative comparison. The final score is derived from a weighted average reflecting the conceptual importance attributed to each dimension.

It should be emphasised that this score is not intended to establish a mechanical ranking between countries. It provides an analytical overview of relative differences in economic maturity. The final index should therefore not be understood as a statistical truth but rather as a structured representation of a body of information.

3. Limitations

Any construction of a composite index has limitations. Some indicators, such as the Economic Complexity Index (ECI) or the export concentration index, may mechanically penalise highly service-oriented economies due to the statistical difficulty of measuring services with precision. Conversely, indicators such as GDP per capita tend to mask internal inequalities or underlying financial vulnerabilities. Moreover, international comparison presupposes harmonised data, yet national statistical methods may differ, particularly in the measurement of public debt, the recording of financial flows or the estimation of the informal sector.

The proposed index therefore does not claim to replace official classifications nor to constitute a universal standard. It is an analytical tool intended to move beyond traditional binary oppositions and reflect the plurality of development trajectories. Interpretative caution remains essential, since a synthetic score cannot substitute for a detailed analysis of the underlying economic structures.

II. MEASURING ECONOMIC DEVELOPMENT

The next step is to apply this methodology to the economic, financial and trade dimension of development. The aim is to translate the structural differences in economic development between the United States, France and China into comparative analyses and synthetic scores, without resorting to a logic of mechanical ranking or predefined normative thresholds.

The approach adopted is based on the examination of **ten complementary criteria** covering standard of living, macroeconomic stability, growth dynamics, productive capacity, external financial soundness, trade and financial integration, as well as the structural sophistication of the economies studied. Each criterion undergoes a combined qualitative and quantitative analysis drawing on the standards of international institutions, available statistical data and the recent academic literature. The scores assigned result from a **structural and interpretative assessment** that prioritises economic, financial and trade behaviour in situations of tension or stress rather than a purely cyclical snapshot at a given moment.

It should be emphasised that this analysis does not seek to measure development in its general sense, but **only its economic, financial and trade dimension**, the first component of our development index. The results presented here must therefore be interpreted as a partial and dimension-specific evaluation of development, to be complemented and contextualised by analyses of the other dimensions of the index. With this in mind, the scores proposed are not intended to establish a definitive hierarchy between the countries studied, but rather to shed light on their **strengths, vulnerabilities and relative trajectories** in relation to the criteria selected.

A. STANDARD OF LIVING AND SOCIO-ECONOMIC EFFECTIVENESS: A COMBINED READING OF GDP AND THE HDI

1. Gross Domestic Product: A Conventional Indicator that Should Be Placed in Perspective

- i. GDP Per Capita in Purchasing Power Parity Interpreted in light of the Human Development Index

The first criterion selected to measure economic development is deliberately based on the most traditional and widely used indicator in the comparative analysis of economies: **gross domestic product (GDP) per capita**, expressed in **purchasing power parity (PPP)**. GDP corresponds to the sum of consumption (C), current public expenditure (G), investment (I) and the difference between exports (X) and imports (M) for a country over a given period, most often a year: $GDP = C + G + I + (X - M)$. PPP is a method used to make countries' GDP comparable by measuring what their national currency can purchase in a standardised basket of goods and services. GDP per capita corresponds to the value obtained by dividing GDP by the number of inhabitants in the country concerned. It remains the standard indicator for assessing the **average national standard of living** and for classifying

countries⁶ because its calculation is simple, it is available for all countries, and it allows both temporal and international comparisons.

However, numerous scientific and institutional sources (Stiglitz Commission⁷, INSEE⁸, UNDP⁹, World Bank¹⁰) have questioned the relevance of GDP per capita as a single estimator of the level of development and as a tool for distinguishing between developed and developing countries. It cannot fully capture an economy's real capacity to transform the wealth it produces into **effective living conditions** for its population. For this reason, this criterion relies on a **combined reading** of GDP per capita in PPP and the **Human Development Index (HDI)**. The HDI is determined based on GDP per capita, life expectancy at birth and level of education. Here it is used not as an independent criterion but rather as a **contextualising tool** that helps highlight potential gaps between the level of economic wealth and observable outcomes in terms of human development.

This combined analysis makes it possible to assess not only the volume of wealth available per capita but also the **socio-economic effectiveness** of the models studied, understood as their capacity to convert this wealth into measurable outcomes in terms of health, education and standard of living. By combining these two indicators, the criterion thus aims to move beyond a strictly quantitative approach to economic development.

ii. GDP: An Indicator Measuring Standard of Living and Consumption Capacity

The use of GDP per capita in PPP is justified, first, by its direct relationship with the **average material standard of living** of a population. By relating the wealth produced to the size of the population and adjusting for differences in price levels, this indicator provides a robust approximation of the amount of goods and services accessible to individuals in a given economy. As such, it remains an indispensable benchmark for assessing the degree of economic prosperity achieved by a country.

Beyond this descriptive dimension, GDP per capita also provides information on an economy's **capacity for consumption and wealth accumulation**. A high level of wealth per capita reflects not only greater purchasing power but also an increased capacity to finance productive investment, private savings and public spending. In this way, it indirectly but decisively shapes the sustainability of economic models, the resilience of households in the

⁶ See, for example, the World Bank's classification of countries by income level, <https://blogs.worldbank.org/en/opendata/understanding-country-income--world-bank-group-income-classifica>.

⁷ In 2008, President Nicolas Sarkozy tasked the economists Joseph Stiglitz, Amartya Sen and Jean-Paul Fitoussi with reflecting on a measurement of economic performance that would incorporate the concepts of well-being and sustainable development. Their work resulted in the *Report by the Commission on the Measurement of Economic Performance and Social Progress* (2009), whose central thesis is that measurement systems should shift from a focus on production (GDP) to one centred on the well-being of present and future generations in terms of health, education and the environment.

⁸ Following the recommendations of the Stiglitz Commission and the so-called "Éva Sas" law (2015), each year INSEE, France's National Institute of Statistics and Economic Studies, publishes a set of indicators that complement GDP, including healthy life expectancy, carbon footprint, poverty rate and income inequality (Gini coefficient).

⁹ See the *Human Development Report 1990*, UNDP, 1990 and, more recently, the *Human Development Report 2023-2024 - Breaking the gridlock: Reimagining cooperation in a polarized world*, UNDP, 2024.

¹⁰ See the World Bank's report series *The Changing Wealth of Nations*, aimed at measuring "natural capital" and "human capital" to assess the sustainability of development.

face of shocks and the fiscal room for manoeuvre available to governments. In this sense, GDP per capita is a structuring indicator of long-term economic potential.

Nevertheless, GDP per capita is not without limitations when it comes to estimating the level of development of a population. As an aggregated average, GDP per capita masks **inequalities in the distribution of income and wealth** within the population and across territories. Furthermore, it provides no information on how the wealth produced is actually converted into well-being for the population. Taken in isolation, it can therefore lead to reductive interpretations of the actual level of development.

By incorporating the HDI, which integrates the dimensions of health and education in addition to GDP, it becomes possible to assess the **quality of the transformation of economic wealth into human outcomes**, without calling into question the central role of income in development analysis. Combining these two indicators thus allows a more nuanced reading of development trajectories, by distinguishing economies where a given level of wealth translates effectively into improved living conditions from those where significant gaps persist between economic performance and social outcomes.

This criterion aims not so much to measure an absolute level of development as to assess the **socio-economic effectiveness** of the models studied, understood as their capacity to generate wealth and ensure its effective conversion into standard of living and measurable well-being. As such, it provides an essential analytical foundation that will be complemented by the following criteria in order to capture the complexity of economic development dynamics.

2. Similar Levels of GDP, Various Socio-Economic Effectiveness

It is therefore necessary to compare GDP per capita in PPP and the HDI for each country studied in order to move beyond a strictly quantitative comparison of levels of wealth and assess how effectively that wealth is translated into human outcomes and living conditions.

Country	Economic wealth (GDP per capita in PPP, 2025) ¹¹	Human development (HDI, 2022) ¹²
<i>China</i>	~ \$27,000	0.785 (High)
<i>United States</i>	~ \$78,000	0.927 (Very high)
<i>France</i>	~ \$65,000	0.910 (Very high)

Table 1. Comparison of GDP per capita in PPP and HDI in the countries studied.

Note: The most recent HDI data available are for 2022, because the data used to calculate it are collected from UN Member States and international institutions and are generally only finalised and audited one or two years after the end of the year in question.

¹¹ IMF, “World Economic Outlook Database”, *imf.org*, Publications, Apr. 2025, <https://www.imf.org/en/publications/weo/weo-database/2025/april>.

¹² UNDP, Human Development Report 2023-2024 | *Breaking the gridlock: Reimagining cooperation in a polarized world*, 324 p., pp. 274-277, <https://hdr.undp.org/content/human-development-report-2023-24>.

i. China: Real Catch-Up but Structurally Constrained

Over recent decades, China has experienced rapid and sustained growth in GDP per capita in PPP, reflecting undeniable economic catch-up. This dynamic has been accompanied by a significant improvement in the average standard of living and a massive reduction in poverty. Nevertheless, GDP per capita remains significantly lower than that of the so-called advanced economies, placing China in an intermediate position in terms of standard of living.

A combined reading with the Human Development Index reveals a persistent gap between the wealth produced and the observable outcomes in terms of human development. While progress is undeniable, it remains uneven and reflects significant disparities, both social and territorial. This configuration highlights the limitations of a development model long based on rapid capital accumulation and the expansion of productive capacity, whose marginal returns tend to decline.

ii. The United States: A Very High Standard of Living and Contrasting Socio-Economic Effectiveness

The United States has one of the highest GDP per capita levels in PPP terms in the world, reflecting an exceptional capacity for wealth creation as well as a strong capacity for consumption and accumulation. This level of wealth gives the US economy substantial room for manoeuvre, particularly in terms of investment and innovation.

However, a combined reading with the Human Development Index reveals significant internal tensions. Despite a very high GDP per capita, outcomes in terms of human development appear more heterogeneous, which leads to a more nuanced assessment of the overall socio-economic effectiveness of the US model.

iii. France: A High Standard of Living and a More Homogeneous Transformation of Wealth

While France's GDP per capita in PPP terms is high, it is lower than that of the United States, reflecting a standard of living characteristic of advanced economies. This level of wealth is accompanied by a significant capacity for consumption and accumulation, supported by substantial public spending and well-established redistribution mechanisms.

A cross-reading with the HDI highlights greater homogeneity in human development outcomes. The French model stands out for its relatively strong capacity to convert the wealth produced into measurable social outcomes, particularly in health and education. This gives the French economy a distinct level of socio-economic effectiveness under this criterion.

Thus, comparative analysis shows that similar or high levels of GDP per capita may translate into very different configurations in terms of socio-economic effectiveness. This confirms the value of a combined reading with the HDI in assessing development trajectories, while also emphasising that this criterion alone cannot give a full picture of economic development.

3. Score for Standard of Living and Socio-Economic Effectiveness

The score assigned for this first criterion aims to provide an **analytical synthesis** of the combined reading of GDP per capita in PPP and the Human Development Index. Because average standard of living is central to assessing economic development, this criterion is assigned a **high weighting (4/5)** within the economic, financial and trade dimension of our

index. It provides a **central point of reference**, insofar as it directly or indirectly shapes the capacity of economies to sustain consumption, investment and public spending.

The comparison highlights **contrasting configurations**. The **United States** has a very high level of GDP per capita in PPP terms, reflecting an exceptional capacity for the production and accumulation of wealth. However, the more heterogeneous outcomes observed in terms of human development lead to a more nuanced evaluation of the socio-economic effectiveness of the US model (**8.5/10**). **France** has a high level of GDP per capita associated with a more homogeneous transformation of wealth into social outcomes, which justifies a favourable assessment. However, its substantially lower level compared with that of the United States may constrain investment capacity and the country's overall economic power (**7.5/10**). **China** stands out for undeniable economic catch-up but remains at an intermediate level of GDP per capita, with persistent gaps between the wealth produced and human outcomes, which justifies a lower score (**6/10**).

The score and weighting adopted also take into account the **methodological limitations inherent in the indicators used**. The use of GDP per capita in PPP terms, although indispensable for international comparisons, relies on assumptions regarding the composition of baskets of goods and services and may be affected by measurement biases or statistical optimisation behaviour. These limitations require a cautious interpretation of the results, without undermining the structuring role of this criterion in the evaluation of economic development.

Ultimately, the score assigned for this criterion is not intended to establish a fixed ranking of the countries studied, but rather to **situate their relative position** in terms of average standard of living and their capacity to transform economic wealth into effective living conditions. It thus serves as a **central reference point**, to be complemented and refined by the criteria that follow, allowing for a more precise assessment of the stability, sustainability and resilience of the economic models analysed.

Criterion	Criterion weighting (/5)	China	United States	France
<i>Standard of living and socio-economic effectiveness (/10)</i>	4	6	8.5	7.5

Table 2. Score for standard of living and socio-economic effectiveness.

B. THE GENERAL PRICE LEVEL: BETWEEN STABILITY AND STRUCTURAL BALANCE

1. Control of the General Price Level: A Source of Macroeconomic Predictability

i. The General Price Level: A Key Variable of Economic Stability

The second criterion selected to measure economic development is **control of the general price level**, understood as the capacity of an economy to preserve over time the real value of incomes and the observed standard of living. Inflation refers to the general and sustained increase in the prices of goods and services within an economy, leading to a decrease in the purchasing power of money. Conversely, disinflation refers to a sustained reduction in the rate of price increases, which may lead to deflation, defined as a decline in the price level. The general price level is therefore a central indicator of the macroeconomic environment within which the standard of living measured by GDP per capita is experienced.

In the context of this index, the general price level is treated not as an isolated cyclical phenomenon but as a **key variable of economic stability**. A high, unstable or unpredictable general price level directly affects the real value of household incomes, savings, investment capacity and, more broadly, confidence in the economic system. Conversely, a relatively stable price environment contributes to the predictability of economic decisions and to the consolidation of the standard of living.

The criterion chosen is not intended to determine an “optimal” general price level or evaluate conformity with a theoretical norm. Rather, it seeks to assess the **degree of control over the inflationary process**, that is, the capacity of an economy to contain price pressures and avoid runaway dynamics likely to erode living conditions over the long term. The general price level is thus used as an **indicator of the quality of the macroeconomic framework**, complementing the analysis of standard of living and socio-economic effectiveness developed in the previous criterion.

ii. Control of the general price level and its implications for consumers

Control of the general price level is a central element of economic development insofar as it directly affects the **preservation of households’ real purchasing power** and the clarity of economic decision-making. A stable price environment, or one with low volatility, allows consumers to anticipate their spending, smooth consumption over time and preserve the real value of their incomes. In this respect, changes in the general price level provide information about the capacity of an economy to offer a predictable macroeconomic environment conducive to the economic security of households.

Price dynamics also play a key role in the relationship between economic actors and institutions. Unstable price dynamics, whether in the form of prolonged inflationary phases or pronounced disinflation, weaken the confidence of economic actors, disrupt savings behaviour and may accentuate inequalities by affecting actors differently depending on their income and spending patterns. Conversely, control of the general price level contributes to the **clarity of economic signals**, a necessary condition for balanced economic development.

Nevertheless, changes in the general price level alone are not a sufficient indicator of the level of development. Low or contained inflation does not in itself indicate either the **standard of living** achieved, the **quality of growth** or the capacity of an economy to generate

lasting productivity gains. Similarly, price stability may result from cyclical or administrative factors that do not necessarily reflect the structural robustness of the economic model.

For this reason, this criterion does not seek to establish a mechanical relationship between price stability and development, but rather to assess the **macroeconomic framework** within which the observed standard of living is sustained. Changes in the general price level are thus used as an indicator of the **soundness of the economic environment**, complementing rather than replacing the analysis of the level of wealth and socio-economic effectiveness developed in the previous criterion.

2. The Inflation Rate As a Reflection of the Macroeconomic Environment

In analysing control over the general price level, the aim is to assess the **actual macroeconomic stability** within which the observed standard of living is situated. This does not rely on a single comparison of inflation rates, but instead examines **trajectories**, their regularity and their clarity over time, as well as the structural factors likely to influence price formation.

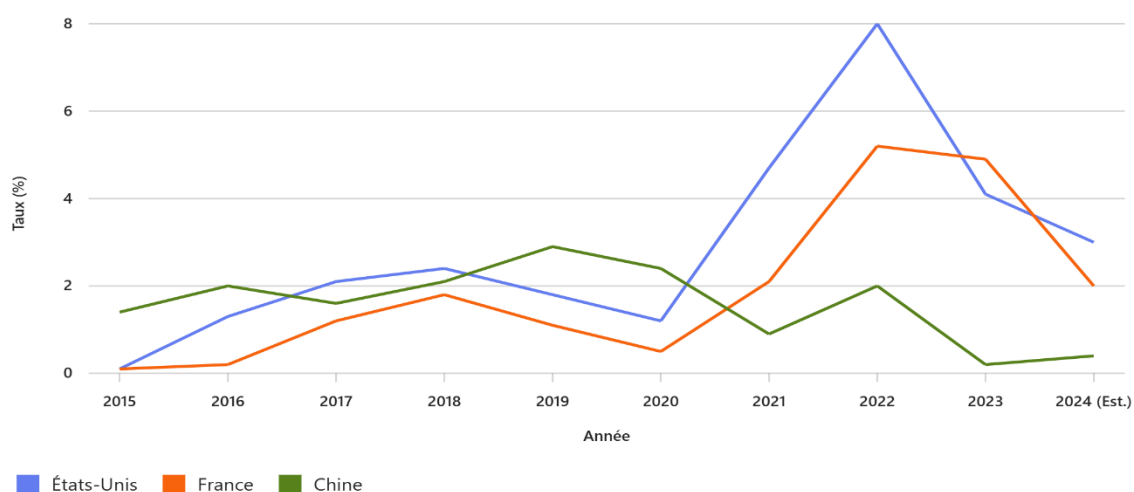


Figure 1. Inflation rates in the countries studied (2015-2024).¹³

Statistic	China	United States	France
<i>Average</i>	1.59%	2.87%	1.91%
<i>Minimum</i>	0.2%	0.1%	0.1%
<i>Maximum</i>	2.9%	8.0%	5.2%
<i>Standard deviation (σ)</i>	0.82	2.29	1.43

Table 3. Inflation rate statistics for the countries studied between 2015 and 2024.

¹³ IMF aggregate data, <https://www.imf.org/external/datamapper/PCPIPCH@WEO/MAE>.

i. China: Price Stability and Deflationary Risk, Revealing a Heterogeneous Model

Over the period considered, China displays both the **lowest average inflation rate** (avg.: 1.59%) **and the most stable inflation rate** ($\sigma = 0.82$) among the countries studied, with a relatively limited maximum (max.: 2.9%). However, this apparent stability does not reflect the same underlying issues as in advanced economies. The particularly low minimum observed (min.: 0.2%) highlights a different type of challenge, namely the **risk of deflation**.

This configuration can be explained by structural characteristics of the Chinese growth model. An economy persistently oriented towards **exports** and **investment**, to the detriment of **consumption**, tends to generate an environment of **low inflation** or even deflation, insofar as domestic demand does not grow at the same pace as productive capacity. This dynamic is reinforced by the existence of **productive overcapacity**, whose effect is intrinsically deflationary, particularly when the economy is exposed to trade tensions and rising tariff barriers.¹⁴

It should be recalled that strong price stability is not, in itself, an unequivocal marker of development. Some advanced economies have already experienced long periods of low price volatility (for example, “the Great Moderation” in the United States from the 1980s to the 2000s), associated with secondary effects on risk-taking behaviour in financial markets (the subprime mortgage crisis of 2007). In the case of China, price stability appears above all as the symptom of a heterogeneous economic structure marked by highly variable levels of competition across different segments of the economy, rather than as the reflection of macroeconomic maturity comparable to that of advanced economies.

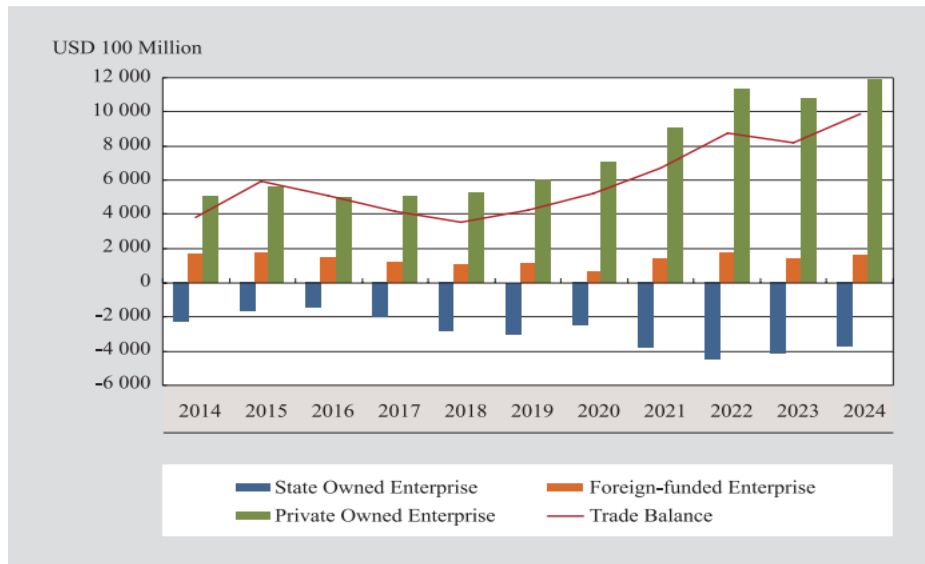


Figure 2. Sectoral contributions to China's trade balance (2024).

This figure highlights a structural duality. On the one hand, certain highly regulated sectors traditionally dominated by state-owned enterprises benefit from **monopoly** or oligopoly positions, with regulations limiting the entry of competition (finance, energy, media and information). On the other hand, many **highly competitive sectors** suffer from overcapacity and engage in price wars, with low margins and a strong **dependence on**

¹⁴ ROACH (S.), *Accidental Conflict: America, China, and the Clash of False Narratives*, Yale University Press, 2022.

external markets. This heterogeneity is a fundamental characteristic of the Chinese economic model and sheds light, beyond the level of inflation alone, on the particular meaning of the observed price stability.

In short, although China stands out for having greater price stability than France or the United States, this stability cannot be interpreted as the expression of an equivalent economic structure or of homogeneous competitive intensity. On the contrary, it reflects specific mechanisms in which deflationary risk and sectoral duality play a central role.

ii. The United States: More Volatile Inflation Within a Robust Macroeconomic Framework

Over the period, the United States is characterised by a **higher average inflation rate** than the other countries studied (2.87%), as well as **significantly greater volatility** ($\sigma = 2.29$). The gap between the minimum observed (0.1%) and the maximum reached (8%) reflects a greater sensitivity of the US economy to macroeconomic shocks, particularly in recent years.

Above all, this volatility reflects the **highly cyclical nature** of the US economy. Phases of recovery or external shock quickly translate into inflationary pressures, demonstrating a strong capacity to generate demand and rapid adjustments in prices. More recently, the trajectory observed also suggests an ability to **manage a phase of disinflation without triggering an abrupt slowdown in economic activity**. This reinforces the short-term predictability of the macroeconomic framework.

Nevertheless, past experience shows that **apparent price stability can be misleading**. The decades of low volatility observed during the Great Moderation coincided with an accumulation of financial imbalances, reminding us that controlled inflation is not necessarily synonymous with sustainable macroeconomic balance. In this context, movements in the general price level in the United States reveal more about the **cyclicity and responsiveness** of the US economy than about the superiority of its development model.

iii. France: More Subdued Inflation Combined with Moderate Economic Momentum

Over the same period, France shows a **lower average inflation rate** (1.91%) and **noticeably lower volatility** than the United States ($\sigma = 1.43$). This trajectory reflects a **more subdued** path of the general price level, despite a notable inflationary peak in 2022 (5.2%), whose magnitude nevertheless remains lower than that observed across the Atlantic.

The more limited dispersion of inflation rates suggests a more gradual absorption of inflationary shocks, contributing to greater predictability of purchasing power in the short term. This configuration is consistent with the profile of a mature developed economy, characterised by a less abrupt transmission of macroeconomic pressures to prices.

This relative stability should not, however, be interpreted in a single light. Lower volatility may also reflect **more moderate economic dynamics**, limiting internal inflationary pressures. In this respect, trends in the general price level in France reveal less a structural advantage than an **intermediate macroeconomic equilibrium**, where price stability is accompanied by more contained growth.

3. An Informative but Secondary Criterion in Assessing Economic Development

The score assigned for this second criterion aims to synthesise the comparative analysis of control over the general price level, while taking into account the **inherently limited scope** of this indicator in assessing economic development. Neither high inflation nor very low inflation constitutes, in itself, a reliable marker of an economy's level of development. Consequently, this criterion is assigned a **low weighting (1/5)** within the economic, financial and trade dimension of the index.

The analysis highlights **differentiated inflationary profiles**, none of which can be interpreted unambiguously. In the United States, higher and more volatile inflation primarily reflects the **strong cyclicity of the economy** and its marked sensitivity to shocks rather than any structural imbalance (7/10). This configuration is consistent with a dynamic developed economy but limits the ability of this criterion to signal clear structural superiority. In France, more moderate and relatively more stable inflation reflects a more **subdued macroeconomic equilibrium** consistent with the profile of a mature developed economy, while also potentially indicating more moderate economic dynamics (8/10).

China stands out for **exceptionally high price stability** over the period. While this characteristic may at first glance be interpreted as a sign of macroeconomic stability, qualitative analysis invites a more nuanced interpretation. The low level and stability of Chinese inflation appear closely linked to **structural imbalances**, notably the coexistence of monopolistic sectors dominated by state-owned enterprises and highly competitive sectors characterised by productive overcapacity and price wars. In this context, low inflation cannot be equated with a sign of high economic maturity, but rather appears as a **symptom of structural heterogeneity** and a latent deflationary risk (6.5/10).

The score assigned to this criterion therefore reflects a cautious assessment of the **soundness of the macroeconomic framework** rather than a direct judgement on the level of development. Control of the general price level is a necessary condition for a stable standard of living, but it remains **insufficient to clearly distinguish** developed economies from developing ones. This criterion should therefore be interpreted as a **complementary indicator** to consider alongside the criteria relating to growth, productivity, sustainability and the structure of the economic models analysed.

Criterion	Criterion weighting (/5)	China	United States	France
General price level (/10)	1	6.5	7	8

Table 4. General price level score.

C. GROWTH DYNAMICS: BETWEEN CATCH-UP AND CONVERGENCE IN THE LIGHT OF INFLATION

1. The Relationship Between Growth Rates and the Consumer Price Index

i. Growth Dynamics: The Interaction Between Production and Price Developments

The third criterion used to measure economic development is **growth dynamics**, examined through the **GDP growth rate** and its interaction with **changes in the general price level**, measured using the consumer price index (CPI). The GDP growth rate provides information on the pace of expansion in production, while the CPI is used to assess how this actually translates into purchasing power and effective demand.

Taken in isolation, the growth rate is a **fundamentally dynamic indicator**, but it is **only weakly informative** about the level of development. It is highly dependent on the initial size of the economy, base effects and the phase of the economic cycle. For an equivalent level of wealth creation, an economy in a catch-up phase will mechanically display higher growth rates than an already advanced economy, without this necessarily reflecting a higher level of development.

ii. From Cyclical Performance to Development Trajectory

For this reason, growth is analysed here in light of price developments. By examining the gap between the GDP growth rate and inflation measured by the CPI, it is possible to assess whether **production growth** is accompanied by an increase in demand, price pressures or, conversely, a weakening in the transmission of growth to the real economy. Sustained growth associated with moderate inflation can therefore signal a catch-up phase, but also reveal structural imbalances in demand. Conversely, inflation that is high relative to growth can indicate pressures on productive capacity, macroeconomic imbalances, or an erosion of real gains.

This criterion therefore aims to characterise the **economic trajectory** by distinguishing different configurations of economic maturity. Economies that have reached a high level of income per capita often have more moderate growth rates, linked to diminishing returns to capital, demographic constraints or stabilised productive structures. In this context, weak growth is not necessarily a sign of declining development, but may instead reflect a phase of convergence or stabilisation.

This criterion therefore seeks not to rank economies according to their cyclical performance, but rather to assess their **relative position in the development process**. The growth-price dynamic is thus an intermediate indicator of trajectory: informative but not conclusive, and therefore intended to be complemented by the other dimensions of the index.

2. The Growth Rate and the Development Trajectory

The comparative analysis of growth dynamics aims to assess the **relative position of the economies studied within their development trajectory**, by examining both the pace of GDP growth and changes in the general price level. This approach makes it possible to move beyond a strictly quantitative assessment of growth in order to clarify its macroeconomic significance, notably through the gap between production and inflation, which reveals the balances and imbalances between supply and demand.

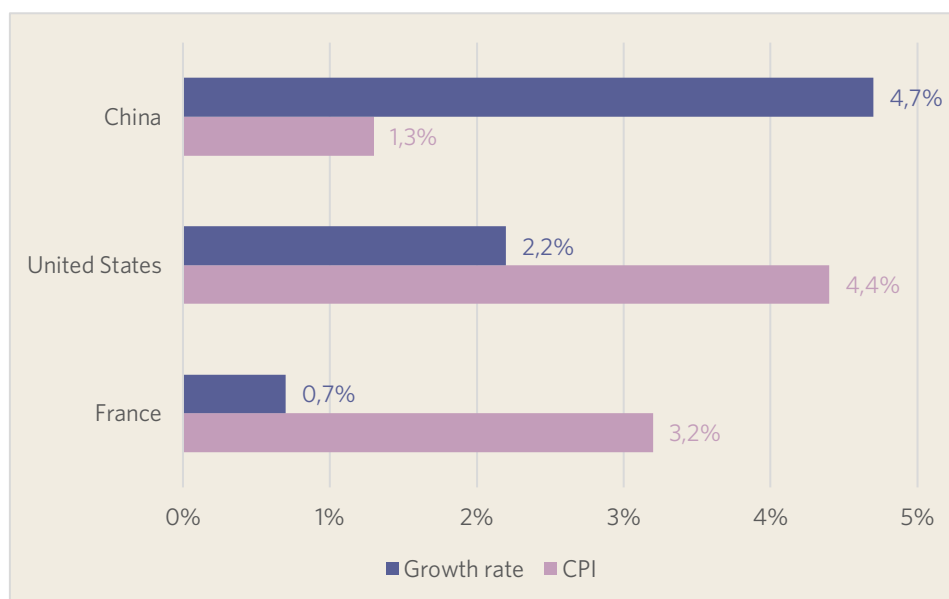


Figure 3. GDP growth rate and consumer price index (2020-2024).¹⁵

i. China: Still-High Growth Reflecting Constrained Catch-Up

Since 2020, China has recorded **average GDP growth significantly higher** than that of the developed economies studied (+4.7%), combined with **very low inflation** (+1.3%). This marked positive gap between growth and inflation reflects a dynamic in which production is expanding more rapidly than domestic demand, confirming that economic catch-up is still under way.

However, this configuration also highlights **structural imbalances**. The weak transmission of growth to prices suggests insufficient domestic demand, partly linked to productive overcapacity, weakened household confidence and an allocation of resources historically oriented towards investment and exports. The combination of sustained growth and contained inflation, sometimes bordering on deflation in certain recent periods, thus reveals a paradoxical situation. China simultaneously exhibits characteristics of a catching-up economy and vulnerabilities typical of more mature economies confronted with structural constraints.

The growth-price dynamic therefore places China in an **intermediate transition zone** where the continuation of quantitative catch-up coexists with growing limits on the transmission of growth to domestic demand.

ii. The United States: Moderate Growth in a Dynamic Developed Economy

Over the same period, the United States is characterised by **more moderate average GDP growth** (+2.2%), but combined with **significantly higher inflation** (+4.4%). The negative gap between growth and inflation indicates that price pressures have exceeded the pace of production growth, reflecting a phase of macroeconomic overheating largely linked to the post-pandemic context.

¹⁵ Aggregated data from the IMF, the World Bank, and the national statistical institutes of China (NBSC), the United States (BEA/BLS) and France (INSEE).

This configuration is typical of an advanced developed economy capable of bouncing back rapidly after a shock but exposed to inflationary pressures when demand temporarily exceeds productive capacity. The observed dynamic does not call into question the level of development of the US economy, but highlights a **pronounced cyclical pattern** in which real growth is partially eroded by inflation.

Thus, in the case of the United States, the joint analysis of growth and prices reveals less about a catch-up process than about the **management of cyclical balances** specific to a mature and highly responsive economy.

iii. France: Weak Growth in the Face of Significant Inflationary Pressures

France shows a **particularly low average GDP growth** over the period studied (+0.7%), combined with **significantly higher inflation** (+3.2%). The substantial gap between inflation and growth reflects a situation in which real gains in production remain limited, while price pressures affect purchasing power.

This profile is typical of a **mature developed economy with low growth potential**, exposed to significant external shocks and with more limited structural room for manoeuvre. The growth-price dynamic does not signal catch-up, but rather a phase of relative stagnation in which growth struggles to offset the effects of inflation.

In this context, weak growth should not be interpreted as an indicator of underdevelopment but rather as reflecting an advanced economy confronted with structural, demographic and energy constraints that limit its capacity for rapid expansion.

3. A Trajectory Criterion with a Limited Scope for Interpretation

The score assigned for this third criterion aims to synthesise the analysis of growth dynamics in relation to price developments, while taking into account the structural limitations of this indicator in assessing the level of economic development. The growth rate alone does not allow direct comparison between economies, because of base effects linked to the initial size of GDP, cyclical fluctuations and differences in economic structure. Consequently, this criterion is assigned a **moderate weighting (2/5)** within the economic, financial and trade dimension of the index.

The comparative analysis shows that growth dynamics have different meanings depending on the stage of development. In the United States, moderate but positive growth reflects a **dynamic developed economy** capable of bouncing back rapidly after shocks, but whose real gains are partially eroded by higher inflation. The trajectory observed corresponds to that of a mature economy characterised by a strong cyclical pattern and occasional cyclical imbalances, which nevertheless do not call into question its level of structural development (**7.5/10**).

France stands out for particularly weak growth over the period studied, combined with significantly higher inflation. This configuration reflects a **phase of relative stagnation** typical of a developed economy that has reached an advanced stage of maturity but is confronted with persistent structural constraints. The absence of catch-up dynamics results in a lower score, not as a signal of underdevelopment but rather as an expression of limited growth potential within a stabilised institutional framework (**6/10**).

As for China, it shows significantly higher average growth combined with very low inflation. The marked positive gap between growth and inflation reflects a **catch-up dynamic**

that is still under way, but also reveals internal imbalances, notably insufficient domestic demand and productive overcapacity. This combination gives the Chinese economy an intermediate profile. Its growth trajectory remains strong but is not fully transmitted to the real economy, which justifies a high score but not the maximum (8/10).

The score assigned for this criterion reflects a trajectory assessment rather than an evaluation of raw performance. Growth dynamics, considered in relation to price developments, make it possible to situate the economies studied along a spectrum between catch-up, convergence and maturity, without constituting a decisive indicator of the level of development.

Criterion	Criterion weighting (/5)	China	United States	France
Growth dynamics (/10)	2	8	7.5	6

Table 5. Growth dynamics score.

D. FROM CAPITAL ACCUMULATION TO PRODUCTIVE EFFICIENCY: INVESTMENT AND TOTAL FACTOR PRODUCTIVITY (TFP)

1. From Investment Intensity to Productive Efficiency

i. The Relationship Between Investment and TFP

The fourth criterion used to measure economic development is **investment efficiency**, analysed through **total factor productivity (TFP)**. This criterion relies on two distinct but complementary concepts. On the one hand, the **investment rate**, generally expressed as a percentage of GDP; and on the other, TFP, which measures the share of economic growth not explained by the accumulation of the factors of production, namely capital and labour.

The investment rate indicates the **extent of capital accumulation** within the economy. It reflects the scale of the resources devoted to the formation of productive capital, whether in the form of infrastructure, equipment, housing or intangible assets. However, taken in isolation, this indicator does not allow an assessment of the economic efficiency of investment or of how investment translates into gains in output.

TFP is a **residual** indicator obtained by decomposing GDP growth into the contributions of capital and labour, with the remaining portion attributed to TFP. It aggregates all efficiency gains linked in particular to the organisation of production, technological progress, innovation diffusion and resource allocation. TFP is not directly observable and depends on methodological conventions, which makes international comparisons difficult, but it remains a central tool for analysing the overall performance of a productive system.

ii. Distinguishing Extensive Accumulation from Efficiency Gains

Investment constitutes a central lever of economic growth, but its quantitative level alone cannot characterise the stage of development of an economy. There is **no single universal threshold** for the investment rate relative to GDP that would make it possible to

strictly distinguish developed economies from developing ones, since the quality and efficiency of investment matter more than its volume. However, through empirical analysis it is possible to identify **typical ranges** of investment rates that generally reflect the productive structure and the degree of economic maturity.

Country category	Investment rate / GDP	Purpose of investment	Notable examples
<i>Developed countries (mature)</i>	20% to 25%	Capital replacement, innovation, R&D, human capital	United States, France, Germany, Japan
<i>Developing / emerging countries</i>	25% to 35%	Catch-up, construction of basic infrastructure, rapid industrialisation	India, Indonesia, Vietnam
<i>Capital-driven growth countries (distortion)</i>	35% and above	Extensive growth, often inefficient, financed by debt	China

Table 6. Interpretation of average investment rates (2015-2024).¹⁶

The emergence of three categories rather than two (“developed” and “developing”) highlights the **ambiguous nature of investment** when considered in isolation. High levels of investment can support short-term growth without necessarily generating lasting efficiency gains, particularly when capital allocation is biased or marginal returns decline rapidly. Conversely, economies with more moderate investment rates may record solid economic performance if investment is efficiently directed towards high value-added uses.

From a development perspective, the trajectory of TFP can therefore help to distinguish growth models based primarily on **extensive accumulation** of factors from those based on **efficiency gains**. Developing economies often progress through rapid increases in capital and labour volumes, whereas advanced economies are more frequently characterised by growth driven by productivity, innovation and organisational sophistication. In this respect, changes in TFP are a particularly useful indicator for assessing the transition from a catch-up model to a mature growth model.

Even though TFP depends on measurement conventions and is sensitive to statistical revisions, analysing it over long periods and comparing it with investment levels provides a **particularly useful basis** for characterising the nature of economic development. This criterion therefore makes it possible to assess not only the **intensity of productive effort** but, above all, its **economic quality**, thereby shedding light on the maturity of growth models.

2. Contrasting Productive Trajectories: Accumulation, Diffusion and Stagnation

The comparative analysis of investment efficiency is based on examining the relationship between the **level of capital accumulation** and the **trajectory of total factor productivity**. This approach makes it possible to characterise the **nature of the growth models** of the economies studied, by distinguishing growth dynamics based on an extensive accumulation of factors from those based on efficiency gains. Beyond differences in the level of development, the trajectory of TFP sheds light on the respective capacities of economies to transform investment into sustained growth.

¹⁶ Aggregated data from the IMF and the World Bank.

Country	Pre-crisis period 2000-2007	Crisis period 2007-2014	Post-crisis period 2014-2024	Overall period 2000-2024
<i>China</i>	3.3%	2.7%	0.9%	2.4%
<i>United States</i>	1.4%	0.5%	0.9%	1.0%
<i>France</i>	0.7%	-0.1%	0.0%	0.2%

Table 7. Average annual growth rate of total factor productivity (2000-2024).¹⁷

i. **China: An Investment Powerhouse Confronted with Declining Efficiency**

China stands out for its **exceptionally high investment rate**, which historically ranged between 40% and 45% of GDP (1980–2010) and is typical of a growth model long driven by massive capital accumulation. This strategy enabled rapid catch-up and sustained expansion of productive capacity, particularly during the decades preceding the global financial crisis.

However, the analysis highlights a **structural shift** from the late 2000s onwards. Whereas Chinese growth previously relied significantly on efficiency gains, the contribution of TFP has declined markedly in favour of increasingly extensive growth. The massive investment-driven stimulus launched after 2008 made it possible to maintain high growth rates, but at the cost of **declining capital efficiency**.

Source of growth	China Post-2008	United States Post-2008	France Post-2008
<i>Capital (investment)</i>	Moderate to strong	Moderate	Moderate to weak
<i>Labour (employment, demographics)</i>	Weak or negative (declining demographics)	Moderate (stable demography, limited immigration) (rising labour force participation rate, reforms)	Strong (rising labour force participation rate, reforms)
<i>TFP (innovation, efficiency)</i>	Moderate with a sharp slowdown, increasingly pronounced over time	Weak (post-ICT slowdown)	Weak (similar to other mature economies)
<i>Dominant regime</i>	Extensive growth (input-driven) through massive investment (capital)	Intensive growth supported by strong innovative capacity but limited diffusion (many intangible goods and free services, such as digital services, quality improvements and personalisation)	Extensive growth of limited intensity, driven by labour (mainly) and capital but lacking a strong efficiency driver.

Table 8. Nature of investment and sources of growth.¹⁸

¹⁷ The Conference Board, “Total Economy Database”, *conference-board.org*, Sept. 2025, <https://www.conference-board.org/topics/total-economy-database>.

¹⁸ IMF, *World Economic Outlook*, Oct. 2025, <https://www.imf.org/en/-/media/files/publications/weo/2025/october/english/text.pdf>.

OECD, *Finding the Right Balance in Uncertain Times*, OECD Economic Outlook, Interim Report, Sept. 2025, https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/09/oecd-economic-outlook-interim-report-september-2025_ae3d418b/67b10c01-en.pdf

Banque de France, “Projections macroéconomiques - Juin 2025”, *banque-france.fr*, 11 June 2025, <https://www.banque-france.fr/fr/publications-et-statistiques/publications/projections-macroeconomiques-juin-2025>

This table highlights the predominance of capital in Chinese growth after 2008, in a context of limited, or even negative, contribution from labour and a marked slowdown in TFP. This configuration reflects **persistent capital misallocation**, notably towards sectors with low marginal returns, as well as productive overcapacity that continues to weigh on the overall efficiency of the economic system.

China thus appears as an **economy in an advanced stage of transition**. It possesses exceptional investment capacity and high technological capabilities in certain sectors, but remains largely dependent on a logic of quantitative accumulation, whose macroeconomic efficiency gains remain limited.

ii. The United States: Intensive Growth Constrained by the Diffusion of Productivity Gains

The United States has an **investment rate consistent with the standards of developed economies** (20-25% of GDP), oriented primarily towards capital renewal, innovation, and research and development. Unlike China, US growth relies more on the **dynamics of innovation and efficiency** than on the massive accumulation of factors.

The trajectory of TFP shows a **gradual slowdown** since the mid-2000s, following a period of strong acceleration linked to information and communication technologies (ICT). Although the average TFP growth remains higher than that observed in France and close to that of China in recent years, it remains below the levels reached during earlier phases of expansion.

This slowdown does not reflect an overall inefficiency of investment, but rather an **incomplete diffusion of productivity gains**. Efficiency gains tend to be concentrated in a limited number of firms with high technological intensity, while their transmission to the rest of the productive system remains partial. The US model is thus characterised by **intensive growth**, but this is constrained by phenomena of sectoral polarisation and differentiated innovation diffusion.

iii. France: Productive Stagnation in a Mature Developed Economy

France presents a distinct configuration, marked by a **moderate investment rate** consistent with the standards of developed economies, but oriented largely towards maintaining the productive system and employment rather than towards major technological breakthroughs. Although investment remains significant, it translates only marginally into measurable efficiency gains.

The trajectory of TFP appears **almost stagnant** in recent years, placing France at a relative disadvantage compared with the two other economies studied. This persistent weakness in productivity reflects structural rigidities, limited entrepreneurial dynamism in certain sectors and insufficient innovation diffusion, particularly in services.

French growth relies more on low-intensity extensive mechanisms, in particular through the labour factor, in a context of advanced economic maturity. This profile is typical

Bureau of Labor Statistics, "Productivity and Costs, Third Quarter 2025, Revised", *bls.gov*, Economic News Release, 29 Jan. 2026, <https://www.bls.gov/news.release/prod2.toc.htm>.

Bureau of Labor Statistics, "Total Factor Productivity Major Industry Contributions to Output", *bls.gov*, Productivity, 19 Dec. 2025, <https://www.bls.gov/productivity/highlights/contributions-of-total-factor-productivity-major-industry-to-output.htm>.

of a **stabilised developed economy** with significant institutional and social stabilisers, but confronted with a structural deficit in efficiency gains.

3. A Key Criterion of Economic Maturity

Investment efficiency and TFP trajectory are a **central indicator of the quality of economic development**, insofar as they make it possible to distinguish growth models based on the extensive accumulation of factors from those based on lasting efficiency gains. However, the methodological uncertainties associated with the measurement of TFP, as well as the strong sectoral heterogeneities it encompasses, justify treating this criterion as neither marginal nor dominant within the economic dimension. It is therefore assigned a **relatively high weighting (3/5)**.

The US economy is characterised by an **investment rate consistent with the standards of developed economies**, oriented primarily towards capital renewal, innovation and research and development. Despite a marked slowdown in TFP growth since the mid-2000s, it remains, on average, higher than that observed in France and close to that of China in recent years (**8.5/10**). The high score assigned reflects the **overall quality of investment**, the existence of a robust innovation ecosystem, and the capacity of the US model to generate predominantly intensive growth. The limitations identified relate less to the volume of investment than to the **incomplete diffusion of productivity gains**, which remain concentrated in a limited number of firms with high technological intensity.

France has a **moderate investment rate** consistent with that of a mature developed economy, but its impact on productivity remains limited. The TFP trajectory is characterised by **near stagnation** in recent years, reflecting persistent structural rigidities and insufficient innovation diffusion, particularly in the services sector (**6.5/10**). The country is in a phase of **productive stagnation**, typical of an advanced economy with strong institutional and social stabilisers, and is confronted with a lasting deficit in efficiency gains. Although investment remains significant, it translates only weakly into measurable improvements in overall productivity.

China stands out for an **exceptionally high investment rate**, typical of a growth model long driven by the massive accumulation of capital. Although this strategy has enabled rapid catch-up and sustained expansion of productive capacity, it has been accompanied, since the late 2000s, by a **marked slowdown in TFP growth (7.5/10)**. China's profile is mixed. It is a powerful economy, endowed with exceptional investment capacity and strong technological capabilities in certain sectors, but still dominated by a logic of extensive accumulation and by declining capital efficiency. The trajectory observed reflects an advanced transition, but the shift towards fully intensive growth is not yet complete.

The inclusion of TFP plays a key role within the economic, financial and trade dimension of the index, by highlighting the extent to which economies are able – or limited in their ability – to transform investment into lasting efficiency gains.

Criterion	Criterion weighting (/5)	China	United States	France
Productive efficiency (/10)	3	7.5	8.5	6.5

Table 9. Productive efficiency score.

E. TRADE AND CURRENT ACCOUNT BALANCES: EXTERNAL BALANCES OF ECONOMIC MODELS

1. External Balances As a Structural Lens for Analysing Economic Models

i. From the Trade Balance to the Current Account

The fifth criterion used to measure economic development is the analysis of the trade and current account balances. These describe the relationship between the national economy and the rest of the world by comparing the flows of goods, services and income.

The **trade balance** measures the difference between the value of exports and imports of goods. Historically, it is the largest and most volatile component of the current account for the majority of economies, particularly for countries whose productive specialisation relies heavily on trade in goods. It reflects the gap between domestic production of goods and domestic demand directed abroad.

The **current account** provides a broader and more complete measure of the external position. It comprises four sub-accounts: the trade balance, the services balance, the income balance and the current transfers balance.

$$\text{Current account} = \text{Trade balance (goods)} + \text{Services balance} + \text{Income balance} + \text{Current transfers balance}$$

Although the trade balance is generally the main driver of the current account, the latter allows for a more refined analysis of the interactions between external trade and the domestic economy, particularly through flows of services and income linked to the mobility of capital and labour.

From a macroeconomic point of view, the current account balance is directly linked to the balance between **national saving** and **national investment**. A current account surplus is a situation in which national saving exceeds investment, whereas a current account deficit reflects a need for external financing arising from investment or spending that exceeds domestic saving. This accounting identity establishes a structural link between external balances and domestic economic choices.

Trade and current account balances are therefore used here as **descriptive indicators of external balances**, helping to identify the main characteristics of economic models in terms of specialisation, consumption, saving and investment.

ii. External Imbalances and the Saving-Investment Relationship

Trade and current account balances are not, in themselves, unequivocal indicators of the level of economic development. Both developed economies and developing economies may have external surpluses or deficits, sometimes persistently, without these necessarily reflecting economic performance or fragility. However, analysing **external balances** can shed

light on the **internal coherence of economic models** by linking the structure of production, the dynamics of demand, saving behaviour and investment choices.

In this respect, the current account is central: as an aggregate of the other balances, it establishes a direct link between the domestic economy and the rest of the world. Its balance is equal to the difference between national saving and national investment. This accounting identity underscores that external imbalances do not derive solely from trade competitiveness, but result more broadly from the balance between consumption, saving and investment within the economy. A current account deficit reflects a situation in which spending and investment exceed domestic saving, thereby requiring external financing. Conversely, a current account surplus corresponds to an excess of saving relative to investment needs, resulting in the accumulation of foreign assets.

A component-based analysis of the current account provides a more detailed understanding. The services and income balances provide essential information on the structure of the economy, the upgrading of economic activities, the capacity to export high value-added services, and the net position vis-à-vis international capital flows. Two countries with similar current account balances may therefore have very different economic configurations, depending on the respective contribution of goods, services and factor incomes.

From this perspective, external balances are a **structural indicator of economic models**. They provide information on an economy's macroeconomic sustainability, its productive specialisation, and its capacity to finance its own growth.

2. Different models of international integration

The comparative analysis of the trade and current account balances aims to characterise the external consistency of the economic models of the countries studied. Beyond whether the current account is in surplus or deficit, the objective is to examine its structure, dynamics and internal determinants through a component-based analysis. This approach makes it possible to distinguish highly contrasting configurations, revealing differentiated growth models.

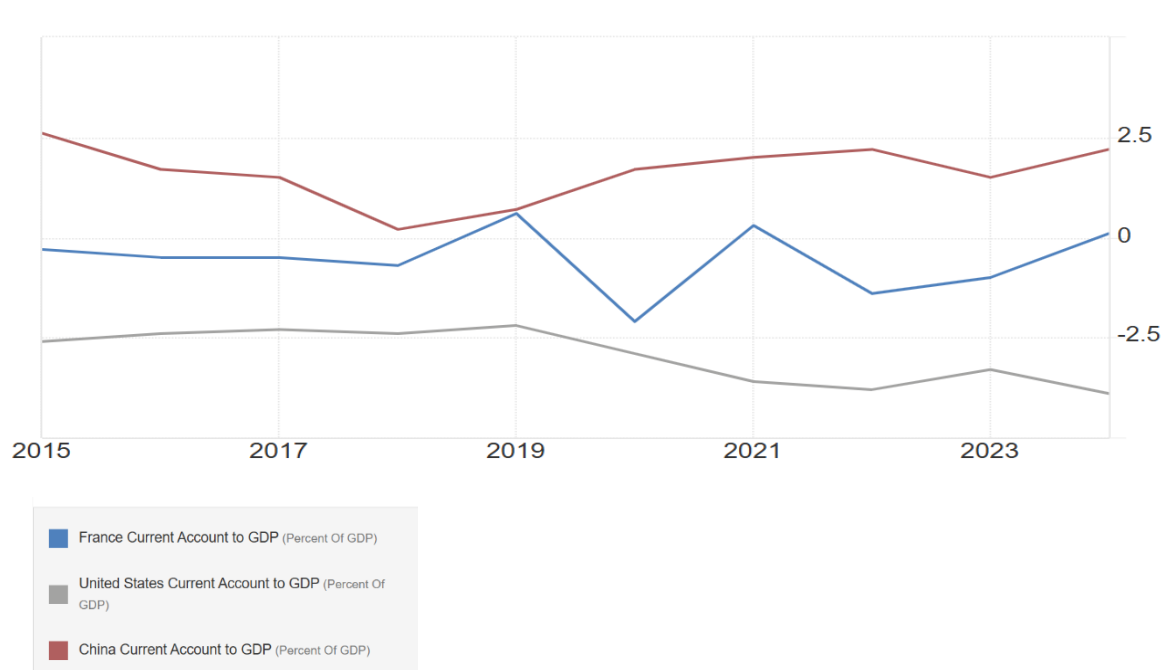


Figure 4. Trends in the current account balance (2015-2024).¹⁹

This graph highlights three distinct profiles: a large and structural current account deficit in the United States; an external position broadly close to balance in France; and sustained current account surpluses in China.

i. The United States: A Structural Current Account Deficit Underpinned by a Demand-Driven Model

The United States has the largest **current account deficit in the world in absolute terms**, reflecting a persistent imbalance between national saving and investment. This deficit does not reflect a generalised loss of competitiveness, but rather a **structural excess of spending** over saving, fuelled by high consumption, persistent public deficits, and a low aggregate saving rate.

A component-based analysis shows that the **massive deficit in the goods balance** is partially offset by **surpluses in the services and income balances**. The United States has a strong leadership position in high value-added services, especially financial services, and earns significant income from its investments abroad. This configuration reflects an economic model based on domestic demand, financial attractiveness and the capacity to capture a significant share of global value creation beyond trade in goods alone.

The sustainable nature of this deficit rests largely on the **international status of the dollar**, which allows the United States to finance its external imbalance on a lasting basis. This situation makes the US model unique: it is the world's leading economy in terms of GDP per capita, but also the world's largest net debtor vis-à-vis the rest of the world.

¹⁹ Trading Economics, "France Current Account to GDP", *tradingeconomics.com*, Countries, <https://tradingeconomics.com/france/current-account-to-gdp>.

ii. France: An External Position Broadly in Balance but Fragile

France’s **external position has historically been close to balance**, alternating between surpluses and moderate deficits. Over the long term, the current account balance as a share of GDP has remained broadly balanced, distinguishing France both from the structural US deficit and from persistent Chinese surpluses.

However, this relative stability masks structural vulnerabilities. The **persistent deficit in the goods trade balance** weighs on the current account, while balances are partially supported by services and income. Recurrent public deficits also contribute to reducing national saving, indirectly affecting the external position.

Recent years have marked a significant turning point. The surge in energy prices in 2022 caused a **record current account deficit**, temporarily disrupting the historical balance before a gradual recovery in 2023 and 2024. France nevertheless benefits from its **membership of the euro area**, whose overall external position remains in surplus, thereby mitigating national external pressures.

iii. China: Sustained Current Account Surpluses Reflecting a Still Unbalanced Model

China remains a **leading net exporter**, characterised by structural current account surpluses. However, these surpluses are significantly lower than its trade surpluses, highlighting the importance of a component-based analysis of the current account.

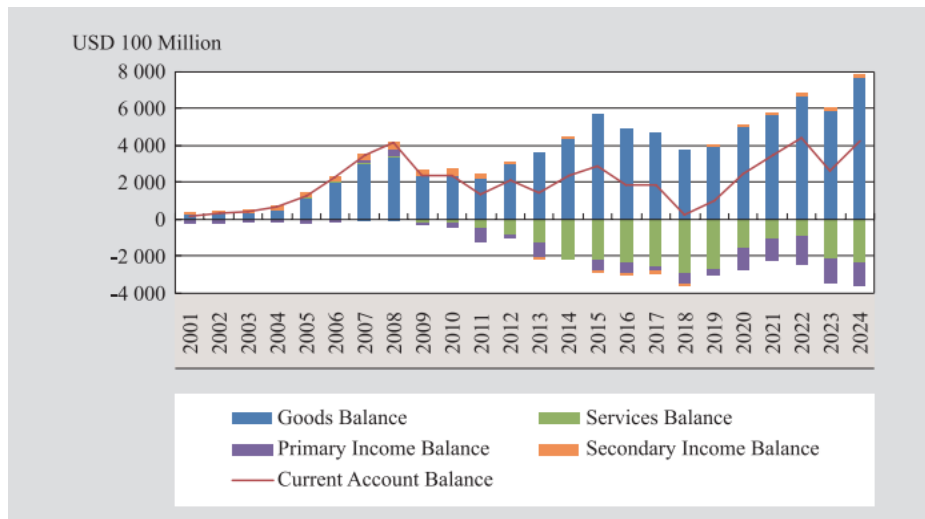


Figure 5. Breakdown of the Chinese current account (2001-2024).²⁰

²⁰ China’s Balance of Payments Report, BOP Analysis group, State Administration of Foreign Exchanges, 2024, p. 55, [https://www.safe.gov.cn/en/file/file/20250828/d6e528846c9744229c13c9c1a415e287.pdf?n=China%20Balance%20of%20Payment%20Report\(2024\)](https://www.safe.gov.cn/en/file/file/20250828/d6e528846c9744229c13c9c1a415e287.pdf?n=China%20Balance%20of%20Payment%20Report(2024)).

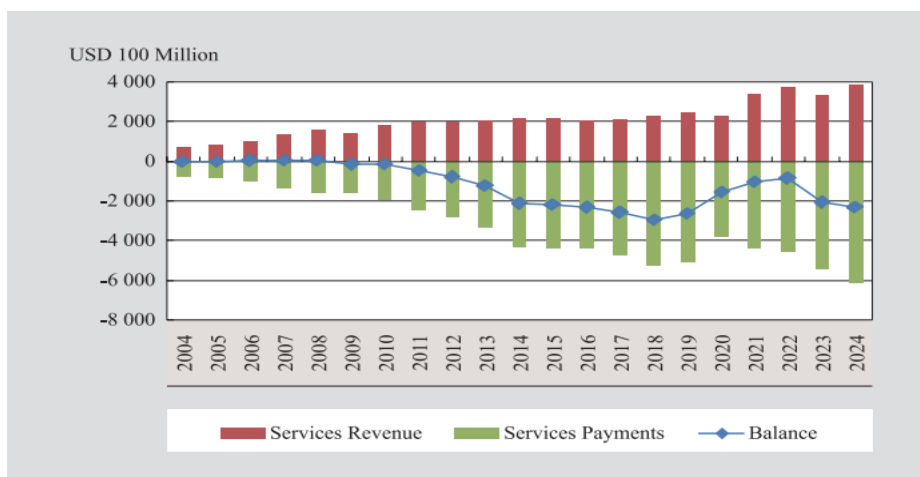


Figure 6. Chinese exports and imports of services (2004-2024).²¹

These two graphs show that the Chinese trade surplus is partly offset by a **chronic deficit in the services balance** and by **net income outflows**. Spending abroad by Chinese tourists, students and business travellers is an important source of foreign exchange outflows. In addition, income paid to foreign investors, due to the large stock of foreign direct investment accumulated over recent decades, continues to weigh on the current account balance.

This configuration reveals a **structural imbalance in the Chinese model**. A highly advanced manufacturing specialisation has led to productive overcapacity and a relative lag in the development and export of high value-added services. Although China has become a net creditor to many developing countries, its current account surplus still relies largely on a catch-up model driven by exports of goods and very high national saving.

3. An informative but secondary criterion for assessing economic development

The comparative analysis of external balances highlights highly contrasting configurations that reflect different economic models. Both developed and developing economies can have persistent external deficits or surpluses, depending on their saving, consumption and investment behaviour, their productive specialisation, or their position in the international monetary system. For this reason, this criterion is assigned a **moderate weighting (2/5)**.

The United States has a **large and structural current account deficit** – the largest in the world in absolute terms. This imbalance does not reflect a generalised loss of competitiveness, but rather a **chronic excess of spending over saving**. Its profile is **paradoxical**: it is a highly mature developed economy, endowed with major strengths in high value-added services and exceptional financial attractiveness, yet structurally imbalanced from the point of view of saving. The sustainability of this situation rests largely on the international status of the dollar. This limits the normative significance of the observed deficit (5/10).

France stands out for an **external position that has remained broadly close to balance** over the long term, a factor of macroeconomic stability. But this situation masks structural vulnerabilities, notably a **lasting trade deficit** and public deficits that erode national

²¹ *Id.*, p. 72.

saving, as well as a certain vulnerability to external shocks. On this criterion, France remains in a **balanced but fragile position (7.5/10)**.

China has **structural current account surpluses**, but these remain lower than its trade surpluses due to persistent deficits in services and income. This profile reflects **very high national saving**, a sign of robustness but also one that reveals internal imbalances. China's external balances, which are largely in surplus, remain more closely associated with a **catch-up model** than with that of a developed economy based on services and factor incomes (6.5/10).

This criterion therefore helps to assess the **external consistency of economic models** without automatically ranking countries according to whether their current account is in deficit or surplus. It sheds light on national trade-offs between saving, consumption and investment, as well as on the forms of integration into the global economy.

Criterion	Criterion weighting (/5)	China	United States	France
<i>External balances (/10)</i>	2	6.5	5	7.5

Table 10. External balances score.

F. FOREIGN EXCHANGE RESERVES AND FINANCIAL CREDIBILITY

1. External Soundness and Financial Credibility Through the Balance of Payments

i. Foreign Exchange Reserves and Errors and Omissions

The sixth criterion used to measure economic development focuses on the **external financial soundness** and **financial credibility** of the economies studied. It draws on two complementary indicators taken from the balance of payments: **official foreign exchange reserves** and the item known as **errors and omissions (E&O)**.

Foreign exchange reserves are liquid external assets held by the central bank, mainly in the form of foreign currencies, gold and sovereign securities. They constitute a stock of liquidity that can be mobilised to address temporary imbalances in the balance of payments, stabilise the exchange rate or absorb external financial shocks. Their level reflects the current account balance, capital flows, interventions in the foreign exchange market, and changes in the valuation of the assets making up the reserves.

Errors and omissions are the balancing item in the balance of payments, intended to ensure equality between the recorded flows. Large, persistent or asymmetric variations in this item may reflect unrecorded or misreported financial flows, particularly capital outflows or inflows not captured in official accounts.

For the purposes of this index, these two indicators are not considered in absolute terms, but rather as **signals of how the financial and monetary system is operating**. Foreign exchange reserves provide information on the capacity to absorb external shocks, whereas errors and omissions offer an indirect measure of financial transparency, the confidence of

economic agents, and the degree of institutional maturity. The aim of this criterion is to assess the **external robustness** of economic models.

ii. Capacity to Absorb Shocks and Transparency of Flows

Changes in reserves, particularly when expressed as a share of GDP or in relation to external needs, are a more informative indicator. A gradual decline in this ratio can be associated with economic maturation and greater financial integration, while a rapid or constrained erosion may signal internal tensions or a loss of confidence.

Errors and omissions provide additional insight. As a residual item in the balance of payments, they help to indirectly identify **unrecorded financial flows**, often associated with capital flight, imperfect financial controls, or limited institutional transparency. Low, stable and symmetric E&O are generally characteristic of financially mature economies, whereas negative, volatile and persistent E&O signal financial fragility.

Taken together, foreign exchange reserves and errors and omissions thus make it possible to assess a country's **financial credibility**.

2. From Raw Financial Power to Systemic Credibility

A comparative analysis of foreign exchange reserves and E&O makes it possible to assess the financial soundness of the economies studied, not on the basis of their raw financial power, but by examining **how coherently they are integrated into the international financial environment** and the **credibility of their balance of payments flows**. A joint analysis of reserve stocks, their changes relative to GDP, and the behaviour of E&O highlights markedly different configurations, reflecting varying degrees of financial maturity.

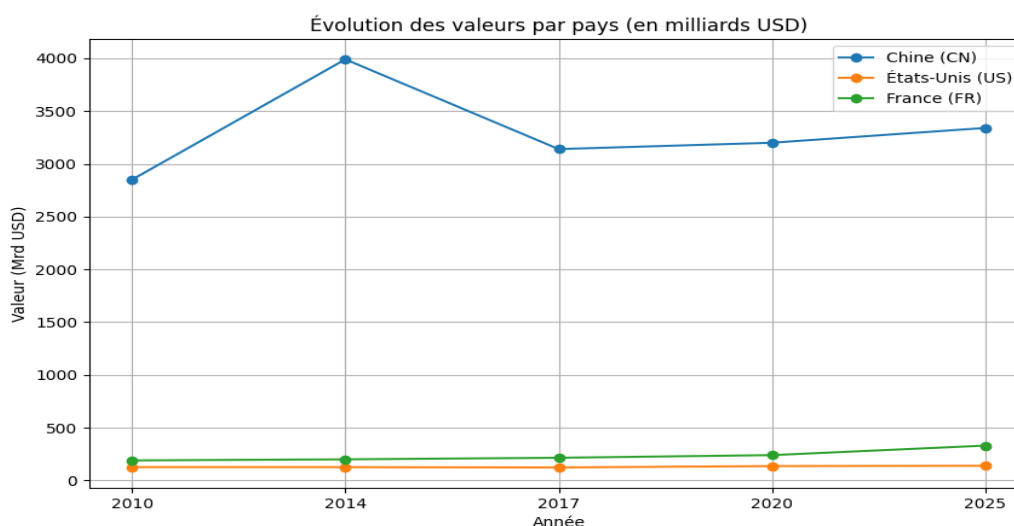


Figure 7. Trends in foreign exchange reserves (absolute terms, 2010-2025).²²

²² Aggregated data from the IMF's Currency Composition of Official Foreign Exchange Reserves (COFER), <https://data.imf.org/en/datasets/IMF.STA:COFER>.

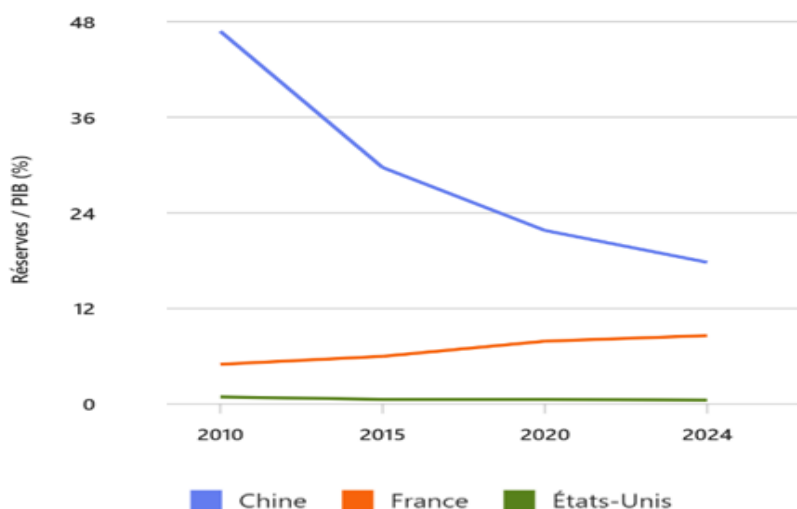


Figure 8. Trends in foreign exchange reserves as a percentage of GDP (2010-2024).²³

i. China: Raw Financial Power and Signs of Incomplete Maturity

China stands out clearly for the size of its **foreign exchange reserves in absolute terms**, which is unmatched. This massive stock gives the Chinese economy a strong capacity to absorb external shocks and constitutes a key instrument of financial stabilisation.

However, an analysis relative to GDP significantly tempers this initial impression. The reserves-to-GDP ratio has declined markedly since the early 2010s, reflecting both a shift towards levels closer to those of advanced economies and a relative reduction in the country's financial safety buffer. This dynamic contrasts with the stability observed in developed economies.

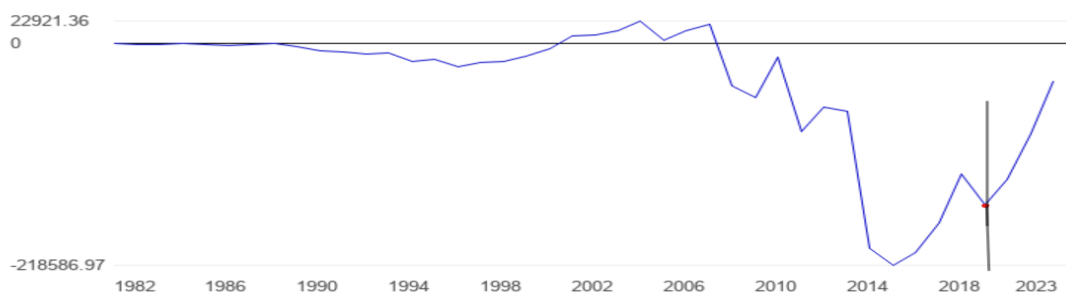


Figure 9. Historical perspective on China's annualised and smoothed E&O (1982-2023).²⁴

The E&O analysis provides valuable insight. Unlike the United States and France, Chinese E&O are characterised by **persistent asymmetry and greater volatility**. These patterns suggest the existence of financial flows not fully captured in official statistics, indicative of **still constrained financial integration** and an imperfect degree of institutional trust.

²³ *Ibid.*

²⁴ Trading Economics, "China", *tradingeconomics.com*, Countries, <https://tradingeconomics.com/china/indicators>.

Thus, despite its considerable raw financial power, China exhibits **ambiguous signals of financial maturity**: the capacity to intervene and absorb shocks coexists with structural weaknesses in terms of transparency and credibility of financial flows.

ii. The United States: Low Relative Reserves and Maximum Financial Credibility

The United States is characterised by a **low level of foreign exchange reserves in relative terms**, both by international comparison and as a share of GDP. This situation does not reflect external fragility; rather, it is a typical feature of a **highly financially mature economy** with deep, liquid and attractive capital markets.

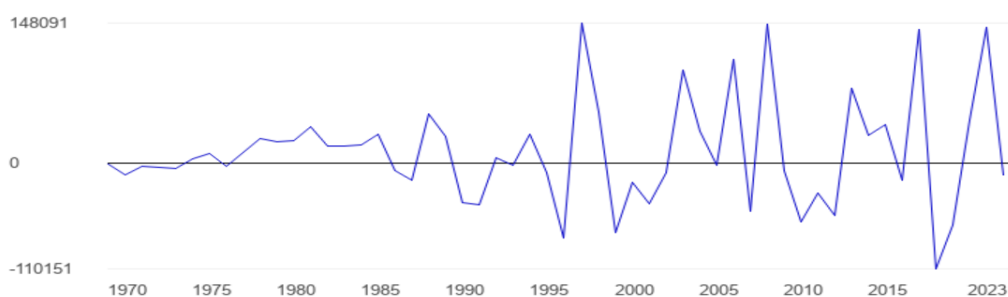


Figure 10. Historical perspective on US annualised and smoothed E&O (1970-2023).²⁵

The absence of reliance on foreign exchange reserves as a stabilisation instrument reflects the capacity of the US economy to absorb external shocks through market mechanisms, as well as the credibility of the country's financial and monetary institutions. This interpretation is reinforced by the analysis of **errors and omissions**, which appear **generally low** and **relatively symmetric** over the long term. These characteristics signal a high degree of transparency in financial flows and sustained confidence among economic agents, both domestic and international.

Despite a highly deteriorated net external position and structural current account deficits, the United States shows a **high level of external financial robustness**, which rests less on the accumulation of reserves than on the quality of the country's financial framework.

iii. France: External Stability and Advanced Financial Integration

France also has **relatively limited foreign exchange reserves as a share of GDP**, which is consistent with the profile of a developed economy integrated into a large monetary and financial area. This situation reflects a **low reliance on official reserves** to ensure external stability, with financial credibility relying primarily on the institutional and monetary architecture of the euro area.

²⁵ Trading Economics, "United States", *tradingeconomics.com*, Countries, <https://tradingeconomics.com/united-states/indicators>.

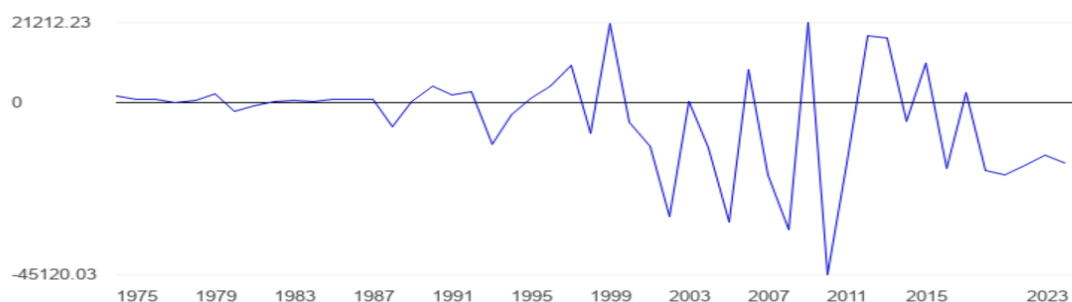


Figure 11. Historical perspective on France's annualised and smoothed E&O (1975-2023).²⁶

The E&O analysis confirms this interpretation. French E&O appear generally **low, stable and symmetric** over the long term, which is characteristic of a mature and transparent financial system with limited unrecorded capital outflows. This stability of financial flows suggests a high degree of institutional trust and good traceability of capital movements.

However, France has **more limited room for manoeuvre** than the United States in the event of a major external shock, insofar as its adjustment capacity relies largely on collective European mechanisms. This intermediate profile reflects **structurally strong external financial soundness**, albeit less autonomous than that of other economies.

3. Financial Credibility As a Key Criterion of Financial Maturity

Foreign exchange reserves and errors and omissions are relevant indicators of **financial and institutional maturity**, provided they are interpreted jointly and over time. This criterion measures neither raw economic power nor standard of living, but rather **the capacity of an economy to operate sustainably in an open financial environment** without relying on large-scale interventions or generating unrecorded financial flows. This explains the **strong weighting (4/5)** assigned to it. It makes it possible to clearly distinguish financially mature economies from those whose external stability still relies on compensatory mechanisms.

The profile of the United States is typical of a highly financially mature economy. The low level of reserves relative to GDP does not constitute a weakness; it reflects the depth of the financial markets, the level of institutional credibility, and the capacity to absorb shocks through market mechanisms. Errors and omissions are low and broadly symmetric, signalling a high degree of transparency in financial flows. All of this reflects **structural external soundness**, despite a highly deteriorated net external position that is made sustainable by the credibility of the financial framework (**9/10**).

France shows high external financial stability, characterised both by reserves consistent with its level of development and limited errors and omissions. The absence of significant capital flight and the regularity of financial flows indicate an advanced level of institutional maturity. However, the country's **room for manoeuvre is more constrained**, due to lower financial autonomy and reliance on the European monetary architecture in the event of a major external shock (**8.5/10**).

China has an exceptionally large stock of foreign exchange reserves in absolute terms, which gives the country a strong capacity to absorb shocks. However, the marked decline in reserves as a share of GDP and the persistence of negative and volatile errors and omissions

²⁶ Trading Economics, "France", *tradingeconomics.com*, Countries, <https://tradingeconomics.com/france/indicators>.

point to institutional weaknesses and incomplete financial integration. This **mixed profile** is characterised by a high level of raw financial power, but external credibility that remains partially constrained by control mechanisms and by financial flows that are not fully transparent (7/10).

This criterion distinguishes economies capable of maintaining external stability without resorting to defensive reserve accumulation or generating hidden capital outflows. It highlights an essential dimension of advanced economic development, namely **external financial credibility**, and complements the criteria relating to standard of living, growth and productivity.

Criterion	Criterion weighting (/5)	China	United States	France
<i>Financial credibility (/10)</i>	4	7	9	8.5

Table 11. Financial credibility score.

G. LONG-TERM SUSTAINABILITY OF THE NATIONAL DEBT

1. Debt As a Trajectory Constraint and Sustainability Test

i. Public Debt, Total Debt and External Debt

The seventh criterion aims to assess the **financial sustainability of economic models** through the analysis of public debt and its structure. It is based on the distinction between **public debt**, **total non-financial debt** and **external debt**, which represent different types of debt and have distinct implications for macroeconomic stability and development.

Public debt refers to the state's capacity to finance its economic, social and investment policies. When it finances productive expenditure, it can support development; when it becomes excessive or rigid, it reduces future fiscal room for manoeuvre and may constrain potential growth. **Total debt**, which aggregates the debt of general government, households and non-financial corporations, provides information on the overall leverage of the economy and on the systemic risks associated with excessive credit accumulation. Finally, **external debt** is the most vulnerable form of indebtedness, particularly when it is held by non-residents or denominated in foreign currency, as it can expose a country to financing and sovereignty constraints.

ii. Sustainability, Institutional Credibility and Long-Term Constraint

In the context of this index, debt is considered neither an indicator of fiscal discipline nor a normative threshold to be respected. It is used to **reveal the structural constraints affecting development trajectories**, by assessing economies' capacity to sustain their debt without compromising growth, financial stability or institutional credibility. This criterion thus aims to assess countries' **macroeconomic room for manoeuvre** to absorb future shocks and finance their long-term development.

Debt sustainability depends less on its level than on the **capacity of the economy to generate income on a sustained basis**, mobilise a sufficient tax base, and maintain the confidence of economic agents. Developed economies are able to sustain high levels of debt when they have credible institutions, reliable access to financing and sufficient growth potential, whereas economies in transition can be fragile at much lower levels of debt.

Distinguishing between public debt, total debt and external debt makes it possible to assess the nature of the **constraints affecting development trajectories**. Public debt determines future fiscal room for manoeuvre, total debt reflects systemic risks associated with financial leverage, and external debt constitutes the most critical constraint in terms of economic sovereignty and macro-financial stability. It is their **combination** that sheds light on the sustainability of a development model, not each taken in isolation.

2. Heterogeneous Debt Configurations

The comparative analysis of debt levels and structures sheds light on the macroeconomic room for manoeuvre of the countries studied, beyond aggregate ratios alone. Cross-analysis of public debt, total non-financial debt and external exposure shows that high levels of indebtedness can correspond to very different development situations, depending on institutional quality, financing structures and underlying growth dynamics.

Indicator	China	United States	France
<i>Public debt</i>	~60-80%	~122%	~111%
<i>Total debt (public + non-financial private)</i>	~284%	~267%	~247%
<i>Foreign holdings of public debt</i>	Largely domestic	~25%	~55%

Table 12. Public debt, total non-financial debt, and foreign holdings of public debt (% of GDP, 2025).²⁷

²⁷ IMF, "Central Government Debt", *imf.org*, IMF Data Mapper, 2026, https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEO/WORLD.
 BIS Data Portal, "Credit to the non-financial sector", *data.bis.org*, 2026, <https://data.bis.org/>.
 Agence France Trésor, "Détenation de la dette de l'État", *aft.gouv.fr*, 2025, <https://www.aft.gouv.fr/en/debt-key-figures>.
 U.S. Department of the Treasury, "Treasury International Capital (TIC) System", *home.treasury.gov*, 2025, <https://home.treasury.gov/data/treasury-international-capital-tic-system>.

i. China: High Total Debt and Contingent Sustainability

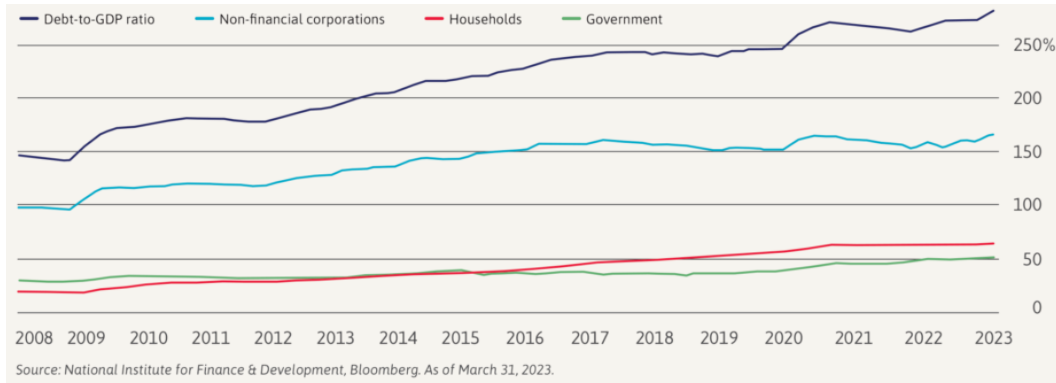


Figure 12. Breakdown of China's total debt (% of GDP, 2008-2023).²⁸

China has a **unique debt profile**. The official public debt figure remains relatively moderate as a percentage of GDP, but it underestimates the true scale of public liabilities, due to the central role of local authorities and ad-hoc financing vehicles. By contrast, total non-financial debt reaches a very high level at close to 300% of GDP, placing China above the developed economies studied.

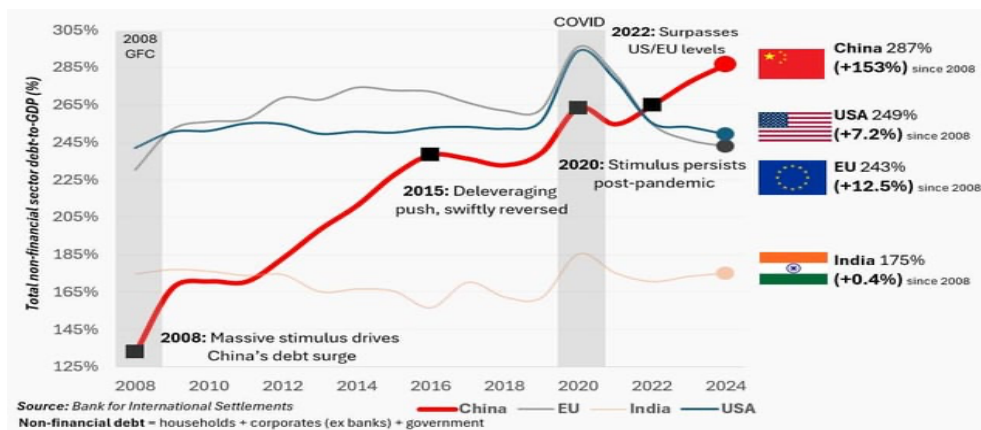


Figure 13. Total non-financial debt of China, the United States, the European Union and India (% of GDP, 2008-2024).²⁹

²⁸ National Institution for Finance and Development, 2025, <http://www.nifd.cn/home/indexen>.

²⁹ BIS Data Portal, *op. cit.*

Year	Trade balance (billion RMB)	GDP (billion RMB)	Debt/GDP (%)	Trade balance/GDP (%)	Δ Debt/GDP (%)	Δ Trade balance/GDP (%)
2016	74,640	180,500	242	41.35	—	—
2017	83,204	205,910	247	40.41	+2.07%	-2.28%
2018	91,928	227,000	247	40.50	0.00%	+0.22%
2019	98,650	251,410	255	39.24	+3.24%	-3.11%
2020	101,360	284,800	281	35.59	+10.20%	-9.30%
2021	114,367	314,100	275	36.40	-2.14%	+2.28%
2022	121,021	344,200	284	35.15	+3.27%	-3.43%
2023	129,428	378,100	292	34.23	+2.82%	-2.62%
2024	134,908	408,340	303	33.03	+3.77%	-3.50%

Table 13. Fluctuations in debt-to-GDP and trade balance-to-GDP ratios.³⁰

This debt is overwhelmingly domestic and denominated in national currency, which **limits the risk of an external crisis**. However, its concentration in the corporate sector, particularly in real estate and sectors linked to public investment, reveals a growth model highly dependent on **capital accumulation**. A dynamic analysis highlights a **marked correlation** between rising debt and the weakening contribution of external trade, suggesting increasingly inefficient capital allocation.

China thus combines characteristics of an advanced economy (net creditor, domestic debt) with vulnerabilities typical of a transition economy, in which debt structurally compensates for a slowdown in the drivers of real growth.

ii. The United States: High Debt and Sustainability Based on Credibility

The United States has a very high level of public debt exceeding 120% of GDP, with a debt trajectory that has followed an upward trend over the long term. This dynamic reflects a structural drift in public finances over several decades rather than a countercyclical use of fiscal policy. The country's total non-financial debt is also high, but relatively balanced between general government, households and firms, which limits the risk of systemic concentration.

Despite these levels of debt, macroeconomic sustainability remains high. US debt is predominantly denominated in national currency, benefits from deep and liquid financial markets, and is embedded in a credible institutional framework. The fact that a significant share of public debt is held by non-residents does not constitute an immediate vulnerability, but rather reflects the structural attractiveness of US assets.

The United States illustrates an extreme but viable case in which very high levels of debt remain compatible with a high level of development thanks to financial credibility, market depth and shock absorption capacity.

³⁰ National Institution for Finance and Development, 'China Macro Leverage Ratio Report', *nifd.cn*, 2025. <http://www.nifd.cn/home/indexen>.

National Bureau of Statistics of China, 'National Economy Pushed Forward with Innovation-led and High-quality Development and Expected Targets Achieved Successfully in 2025', *stats.gov.cn*, 2025, <https://www.stats.gov.cn/english/>.

The People's Bank of China, 'Money and Banking Statistics', *psc.gov.cn*, 2025, <https://www.pbc.gov.cn/en/3688247/3688975/3718249/4503799/index.html>.

iii. France: High Public Debt and Constrained Room for Manoeuvre

France has high public debt nearing 110% of GDP, with a trajectory of almost continuous increase since the 1980s. The country's total non-financial debt is also substantial, but remains below that of the United States and China. Unlike the US, the structure of French debt shows greater external exposure, as a majority of it is held by non-residents.

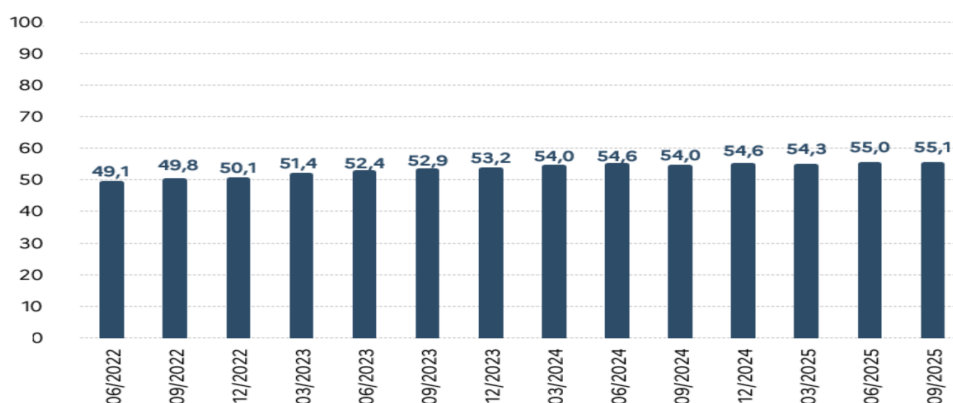


Figure 14. Non-resident holdings of French government marketable debt securities (% of marketable debt, 06/2022-09/2025).³¹

This configuration has not generated an immediate sustainability crisis, due to institutional anchoring within the euro area, implicit support from the European Central Bank, and the depth of the European bond market. However, it reduces fiscal room for manoeuvre and increases the sensitivity of French debt to market conditions and credit ratings.

France has the profile of a mature developed economy whose debt sustainability relies more on collective institutional mechanisms than on an autonomous deleveraging dynamic.

3. A Test of Long-Term Sustainability and Credibility

Debt is a **key criterion** in assessing a country's level of economic development. It influences the future room for manoeuvre available to states, as well as their capacity to absorb shocks and finance the transition of their economic models, without directly reflecting either the standard of living or productive performance. For this reason, this criterion is assigned a **fairly strong weighting (3/5)** within the economic, financial and trade dimension.

US public and external debt are exceptional in both scale and long-term trajectory, but they remain sustainable under the current framework thanks to the depth of financial markets, the country's institutional credibility and the central role of the dollar. The United States has a unique capacity to sustain high levels of imbalance, tempered by mainly long-term vulnerabilities (**7.5/10**).

France's high level of public debt, combined with an unfavourable trajectory and increasing external exposure, is gradually reducing its fiscal room for manoeuvre. Sustainability remains assured in the short and medium term through anchoring in the euro area and institutional support, but the capacity to stabilise the debt trajectory over the long term appears more constrained than in the other developed economies in the sample (**6/10**).

³¹ Agence France Trésor, "Key figures", *aft.gouv.fr*, 2025. <https://www.aft.gouv.fr/en/debt-key-figures>.

Despite moderate official public debt and a net external creditor position, China's very high total debt, concentrated in enterprises and local authorities, is a growing structural constraint. The sustainability of Chinese debt relies largely on domestic mechanisms and on the state's capacity to steer the economy. This gives the country a hybrid profile, situated between an advanced economy and one still in transition (6.5/10).

Ultimately, this criterion highlights that debt becomes a distinguishing factor of development not by its volume, but by the **quality of institutions, the structure of financing and the capacity to generate future growth**. It thus complements the criteria relating to standard of living, growth and productivity by shedding light on the intertemporal dimension of economic development.

Criterion	Criterion weighting (/5)	China	United States	France
Debt sustainability (/10)	3	6.5	7	6

Table 14. Debt sustainability score.

H. ACCESS TO INTERNATIONAL FINANCE AND CAPACITY TO MOBILISE CAPITAL

1. Access to International Capital As an Indicator of Financial Status

i. Safe-Haven Economies and Yield Economies: An Assessment in Periods of Stress

The eighth criterion seeks to assess a **country's capacity to access international finance on a regular, continuous and low-cost basis**, including during periods of financial stress or global shock. The aim is to evaluate not the volume of capital mobilised, but rather the **quality of access** to external financial resources, understood as the possibility for the state, firms and, more broadly, the national economy to raise funds on international markets without major disruption.

Access to international finance includes all the channels through which an economy can mobilise external capital: sovereign or private bond issuance, portfolio investment, foreign direct investment, and cross-border bank financing. This criterion also incorporates the capacity to maintain such access when global financial conditions tighten, that is, when risk aversion rises and capital flows are redirected towards the assets regarded as safest.

In this context, access to international finance should not be equated with either formal financial openness or the size of domestic markets. It is understood as a **functional property of economies**, revealing their degree of effective integration into the international financial system and the confidence they command among international investors.

ii. Monetary Autonomy, Capital Controls and Market Credibility

Access to international finance is an essential marker of the level of economic development, insofar as it reveals a country's **effective position in the international financial system**. Beyond the volume of capital mobilised, it is the **reaction of international investors**

in periods of stress that makes it possible to distinguish developed economies from developing or transition economies.

When risk aversion rises, capital flows are reallocated asymmetrically. Economies perceived as **“safe havens”** then attract capital, see their financing costs decline, and benefit from an appreciation or stabilisation of their currency. Conversely, economies perceived as **“yield destinations”** experience capital outflows, a sharp increase in risk premiums and pressure on their exchange rate, sometimes irrespective of the strength of their domestic fundamentals.

This sensitivity to global financial cycles is a particularly revealing criterion of development. Developed economies are characterised by **structural** access to international finance, which remains open and low-cost even in periods of turbulence. Conversely, developing economies often have **conditional** access, dependent on the global financial environment and liable to be abruptly interrupted during periods of stress, a phenomenon known as a sudden stop.

2. From the Safe-Haven Economy to the Administered Economy: Differentiated Access to Capital

In this context, formal financial openness or the scale of capital flows are not sufficient indicators. A country may attract large volumes of investment during favourable periods, yet remain vulnerable to rapid reversals. Conversely, a country’s capacity to maintain continuous access to markets, absorb liquidity shocks and dissociate its financial trajectory from the cycles of international monetary policy is a central attribute of economies that have reached a high level of development.

i. China: Administered Access and Hybrid Financial Status

China has a distinct profile. It retains recurrent access to international finance and has a substantial capacity for public intervention to stabilise its financial markets. However, in periods of global stress, Chinese assets do not play a safe-haven role. Financial or geopolitical shocks are generally accompanied by net capital outflows, downward pressure on the exchange rate and increased volatility in domestic markets.

This vulnerability is partially offset by **capital controls** and by active intervention from the People’s Bank of China. These measures help to mitigate the scale and speed of capital outflows. These mechanisms give China a shock-absorption capacity that is unusual in an economy perceived as emerging. Nevertheless, this capacity is underpinned by administrative instruments rather than spontaneous confidence from international investors, which limits the quality of access to external finance.

ii. The United States: Structural Access and a Central Role in the International Financial System

The United States holds a singular position in the international financial architecture. In periods of global stress, US assets see a systematic inflow of capital. This dynamic leads to lower financing costs and confirms the United States’ status as **the world’s principal safe haven**.

This privileged access is underpinned by several structural factors: the exceptional scale and liquidity of financial markets, institutional credibility, and the central role of the dollar

in international transactions and reserves. As a result, the United States shapes global financial conditions more than it is subject to them. This capacity to attract capital precisely when it becomes scarce is a strong marker of a very high level of financial development.

iii. **France: Stable Access and Conditional Safe-Haven Status Within the European Framework**

France benefits from stable and low-cost access to international finance, including during periods of financial turbulence. As a member of the euro area, it benefits from the area's relative safe-haven status and from the institutional support of the European Central Bank, which limits the risks of liquidity or exchange-rate crises.

However, this access remains **non-autonomous**. France has no direct control over monetary policy and depends on the European collective framework to maintain investor confidence. In periods of extreme stress, international capital tends to favour US assets over European ones. This situation de facto places France in an intermediate position. It is a developed economy with robust access to international finance, but one that remains dependent on a shared institutional architecture.

3. A Highly Revealing Criterion of Advanced Development

Access to international finance is a **highly revealing criterion** of the level of economic development, insofar as it captures an economy's capacity to mobilise external financial resources **continuously, autonomously and at low cost**, including when the global financial environment deteriorates. It is not merely an indicator of openness, but a test of systemic credibility in periods of tension. It sheds light on a more operational dimension of development, hence its **strong weighting (4/5)**.

The United States is the principal centre of the international financial system and the world's foremost safe-haven. Its capacity to attract capital in periods of crisis, to set global financial conditions and to enjoy durably low financing costs reflects an unmatched degree of integration and autonomy. It **dominates the financial system** and is exposed only to vulnerabilities of a political nature or over the very long term (**9.5/10**).

France enjoys stable and abundant access to international finance at low cost, including in periods of stress, thanks to its membership of the euro area and the institutional support of the European Central Bank. However, this access remains **non-autonomous**, as France has no direct control over monetary and financial conditions, which justifies a score slightly lower than that of the United States (**8.5/10**).

China retains recurrent access to international finance and has powerful intervention instruments to mitigate capital outflows. However, the absence of safe-haven status, the persistence of net outflows in periods of stress, and reliance on administrative mechanisms rather than investor confidence limit the quality of this access. It thus has a **hybrid profile**, situated between a developed economy and one still in transition (**6/10**).

Ultimately, this criterion highlights that advanced economic development is characterised less by formal financial openness than by the capacity to **attract and retain capital when it becomes scarce**. It thus helps to distinguish economies at the heart of the international financial system from those whose access to finance remains conditional and partially constrained.

Criterion	Criterion weighting (/5)	China	United States	France
<i>Access to international finance (/10)</i>	4	6	9.5	8.5

Table 15. Access to international finance score.

I. RELATIVE TRADE AND MONETARY POWER

1. Centrality in Global Flows and Monetary Influence

i. Share in World Trade and Monetary Weight

The ninth criterion aims to assess the **centrality of an economy in the international economic and financial system** through two closely linked stock and flow indicators: **share in world trade (goods and services)** and **presence in global official foreign exchange reserves**.

Share in world trade measures a country's relative weight in international trade and provides information on its degree of integration into global value chains, its capacity to export in the face of international competition, and its role in structuring global trade flows. It reflects a country's **economic size, its productive specialisation and its logistical efficiency**.

The share of the national currency in international official reserves is a distinct but complementary indicator. It provides information on an economy's international monetary role, that is to say on the **degree of confidence** foreign central banks place in its currency as a reserve asset.

ii. Capacity for Influence and Position in the International Architecture

Share in world trade is an indicator of **productive power and international integration**. An economy capable of capturing a significant share of global trade generally possesses a competitive productive system, efficient logistical infrastructure, and firms capable of competing in the global marketplace. Being at the centre of global value chains implies a high degree of industrial organisation, sectoral diversification and innovative capacity.

The monetary dimension complements this analysis. When a currency is widely held in international official reserves, it becomes a **key instrument** for international settlements, precautionary saving and global financial stability. This position gives the issuing country a major strategic advantage. It has the capacity to finance itself at a lower cost, influence international monetary conditions, and absorb external imbalances.

However, trade power and monetary power do not necessarily align. An economy may dominate exports without its currency playing a central international role, particularly where capital controls or limited institutional confidence are present. Conversely, a currency may retain a dominant role despite a relative erosion of the industrial base.

This criterion therefore aims to measure an **economy's weight** in the global economy, understood as its capacity to influence trade flows and the rules of the international monetary system, and to project its power beyond its domestic market. It sheds light on a strategic

dimension of development, distinct from but complementary to the internal indicators of growth, productivity or standard of living.

2. Differentiated Forms of International Power

By analysing the share in world trade and the weight of currencies in international reserves, it is possible to assess productive power, integration into global value chains and monetary influence simultaneously. A comparison of these two dimensions highlights significant gaps between the three economies studied.

Entity	Share in world trade	Key details
<i>Euro area (EU-20)</i>	~15-16%	The euro area's total trade is much higher, but the share expressed here refers to trade with the rest of the world (excluding intra-area trade). If intra-area trade is included, the euro area becomes the leading trading power.
<i>China</i>	~13-14%	The world's leading exporter of goods and a major importer. Its share is growing steadily, particularly in manufactured goods.
<i>United States</i>	~12-13%	The world's leading importer and a major exporter (especially of services). It is characterised by a significant structural trade deficit.
<i>France</i>	~3%	Contributes significantly to the euro area total, as the third-largest economy in the euro area (7th-8th in total trade).

Table 16. Comparison of the trade power of the countries studied (2024).³²

Currency	Share in global reserves	Role
<i>Yuan (CNY)</i>	~2.5-3%	Modest but growing share since its inclusion in the IMF's Special Drawing Rights basket.
<i>US dollar (USD)</i>	~58-59%	Dominant global reserve currency.
<i>Euro (EUR)</i>	~20-21%	Second reserve currency.

Table 17. Relative share of the CNY, USD and EUR in global reserves (2024).³³

³² WTO, 'World Trade Statistics', *wto.org*, 2024, https://www.wto.org/english/res_e/statis_e/world_trade_statistics_e.htm.

³³ IMF, 'Currency Composition of Official Foreign Exchange Reserves (COFER)', *data.imf.org*, 2024, <https://data.imf.org/en/datasets/IMF.STA:COFER>.

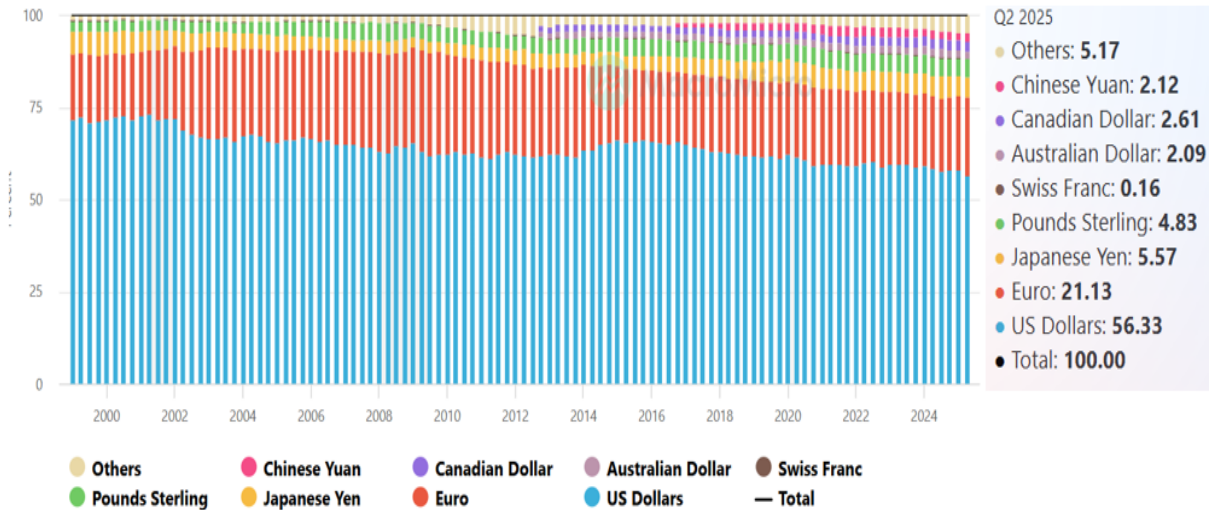


Figure 15. Relative weight of international currencies in official foreign exchange reserves (% , cumulative total).³⁴

i. China: Manufacturing Centrality and Gradual Monetary Ambition

With a share in world trade of around 13–14%, China is the world’s leading exporter of goods. Given its central role in industrial value chains, it is an essential player in world trade. Its strategy of reorientation towards Belt and Road Initiative partner countries, now dominant in its trade, reflects a desire for greater security and geo-economic diversification.

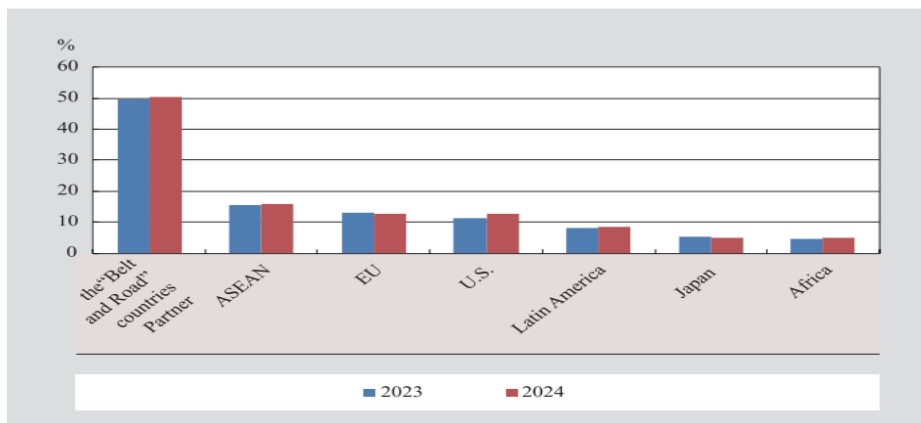


Figure 16. Share of Chinese imports and exports with its main trading partners (2023-2024).³⁵

By contrast, the yuan remains marginal in global reserves (~2.5–3%). The gap between trade weight and monetary weight is significant. Capital controls and incomplete financial integration still limit its internationalisation. China is thus a fully established trade power, but a monetary power that is still under construction.

ii. The United States: Strong Trade Power and Monetary Dominance

The United States accounts for 12 to 13% of world trade. Its structural trade deficit in goods is offset by marked leadership in high value-added services. The distinctiveness of the United States lies above all in the monetary dimension. The dollar accounts for close to 60%

³⁴ Ibid.

³⁵ BOP Analysis group, State Administration of Foreign Exchanges, *op. cit.*, p. 71.

of global reserves. This dominant position gives the United States a unique systemic financial lever.

This monetary centrality enables the United States to durably finance external deficits and capture a substantial share of global savings. US power therefore lies not only in the volume of trade, but also in the international monetary architecture.

iii. France: Moderate National Trade Power, European Monetary Power

Taken in isolation, France accounts for around 3% of world trade. On a standalone basis, its share is lower than that of the two other economies studied. However, its membership of the euro area shifts the perspective. The euro area accounts for around 16% of world trade with non-euro area partners, and the euro is the world's second reserve currency (~20–21%).

France thus benefits from indirect monetary power, backed by the euro, and from a deep integration into European value chains. Its centrality is more regional than global, but its financial credibility is high.

3. An indicator of power rather than economic maturity

Share in world trade and monetary weight together constitute a key criterion for measuring the level of development, as they reveal an economy's capacity to position itself at the core of international flows of goods, services and capital. This criterion primarily measures centrality and influence within the global economic architecture. However, trade power does not always coincide with the degree of economic maturity, hence the **intermediate weighting (2/5)**.

The United States combines a high share of world trade with **unmatched** monetary dominance. The dollar remains the primary international reserve currency and a central instrument in trade and financial transactions. This capacity to simultaneously structure both real and monetary flows places the United States at the **apex of the international system**, despite its structural trade deficit. US influence extends beyond its trade performance alone (**9/10**).

Taken in isolation, France has a more **limited** trade weight. Its international influence rests largely on its membership of the euro area, whose currency is the world's second reserve currency. This power is therefore partly **pooled**. France benefits from advanced integration into European and global value chains, but its independent weight remains below that of the two other economies studied (**7.5/10**).

China has established itself as the **world's leading exporter of goods** and accounts for a share of global trade comparable to that of the United States. Its integration into industrial value chains is extremely deep and strategic. However, the persistent gap between its trade weight and the still modest role of the yuan in global reserves limits its monetary influence. The country's productive power is fully established; its monetary power remains incomplete (**8.5/10**).

This criterion highlights that advanced development is reflected not only in the capacity to produce and export, but also in the **ability to shape the monetary and trade rules** of the international system. It distinguishes economies that occupy a central and normative position from those whose influence remains partially dependent or uneven.

Criterion	Criterion weighting (/5)	China	United States	France
<i>Trade and monetary power (/10)</i>	2	8.5	9	7.5

Table 18. Trade and monetary power score.

J. STRUCTURAL SOPHISTICATION OF ECONOMIES: ECONOMIC COMPLEXITY AND DIVERSIFICATION

1. Complexity and Diversification As Indicators of Structural Development

i. ECI and Export Concentration Index

The final criterion used to measure economic development focuses on the productive structure of the economies studied, assessed through the Economic Complexity Index (ECI) and the Herfindahl-Hirschman Index (HHI).

The ECI measures the diversity and sophistication of the goods exported by a country. It is based on the idea that a developed economy is not distinguished solely by the volume of its production, but by the density of knowledge, skills and technologies embedded in its exports. The more a country exports a wide range of complex products that few other countries are able to produce, the higher its ECI. The empirical correlation between ECI and GDP per capita in PPP terms is strong, making it a structural indicator of development.

The HHI measures the degree of export diversification. It calculates the concentration of each product's share in total exports. The lower the index, the more diversified the export structure, and the less the economy depends on a limited number of products or sectors. Low concentration is generally a sign of resilience and productive maturity.

However, these two indicators share a common methodological bias. They capture manufactured goods more precisely than services, which are classified in more aggregated statistical categories. Their results should therefore be interpreted in light of the degree to which the economies studied are service-oriented.

ii. Moving Up the Value Chain, Productive Density and Resilience

Economic complexity measures the density of capabilities embedded in production. A developed economy is not defined solely by its level of income, but also by its capacity to produce and export goods and services requiring sophisticated combinations of skills, technologies and organisation.

A high ECI reflects a genuine move up the value chain, integration into high value-added segments and barriers to entry for competitors. Conversely, low complexity is associated with a specialisation in standardised or primary products.

Diversification complements this analysis. An economy dependent on a limited number of products remains vulnerable to external shocks. A diversified export structure indicates a broad, adaptable and resilient productive base. Advanced economies generally combine high complexity with a high degree of diversification.

Therefore, the deciding factor is not the volume of exports, but rather their technological content and variety. The transition from a catch-up model to an advanced

development model occurs precisely when growth becomes driven more by productive sophistication than by quantitative expansion.

2. Contrasting Trajectories of Moving Up the Value Chain

By analysing the ECI and HHI jointly, it is possible to situate the three economies studied within the global hierarchy of productive structures.

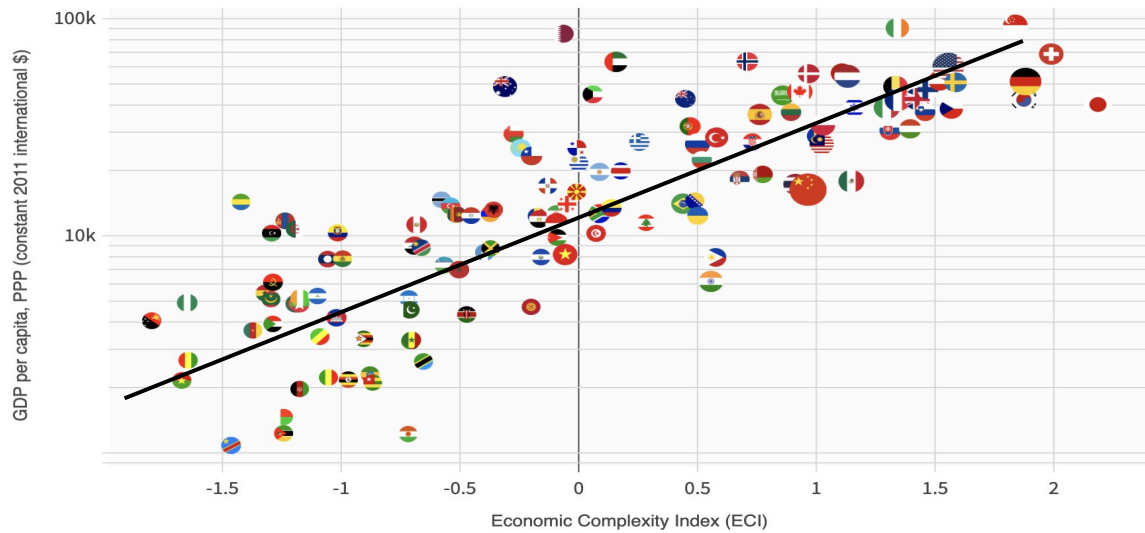


Figure 17. Correlation between ECI and GDP per capita in PPP (\$, 2021).³⁶

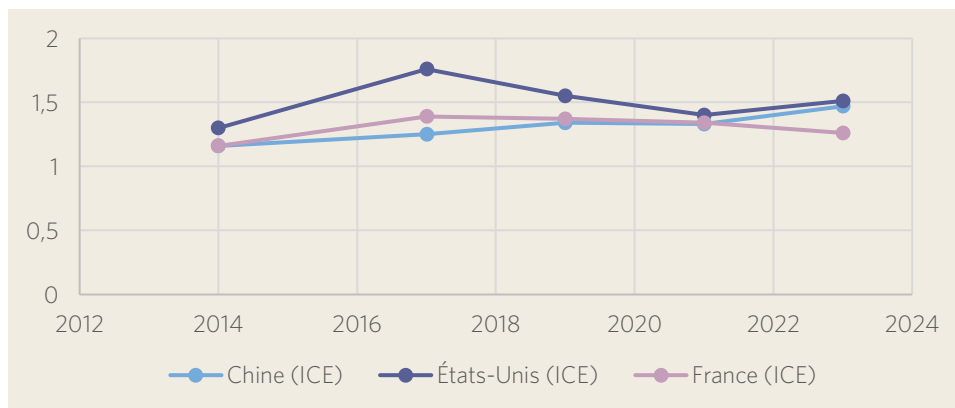


Figure 18. Trends in economic complexity indices (2014-2024).³⁷

³⁶ Harvard's Growth Lab, "Atlas of Economic Complexity", atlas.hks.harvard.edu, <https://atlas.hks.harvard.edu>.

³⁷ According to data from Harvard's Growth Lab, "Atlas of Economic Complexity", atlas.hks.harvard.edu, <https://atlas.hks.harvard.edu>.

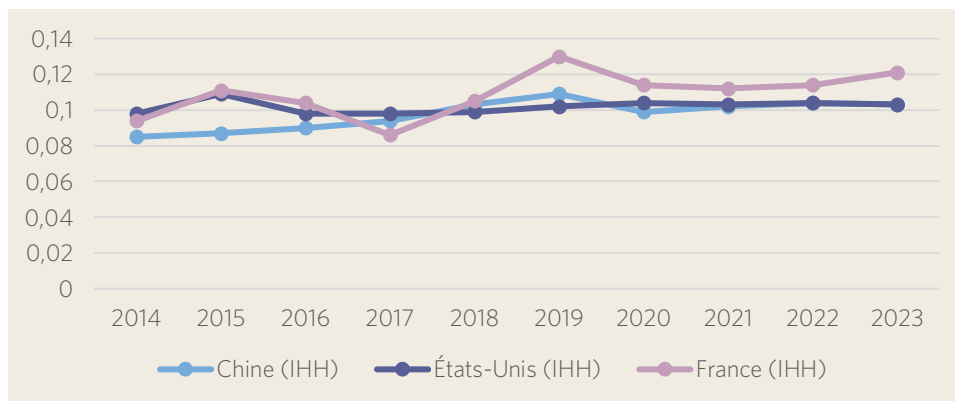


Figure 19. Trends in economic diversity indices (2014-2024).³⁸

i. China: Spectacular Catch-Up and Rapid Increases in Economic Complexity

China is the most dynamic of the three economies. Its ECI has risen sharply over the past decade, narrowing the gap with Western economies and now surpassing some of them. Its manufacturing base is now among the most diversified in the world.

The HHI confirms high and stable diversification, comparable to that of major advanced economies. China exports an extremely wide range of complex goods, including capital goods, electronics, chemicals and green technologies.

However, the structure remains more industrial than post-industrial. The share of services in GDP is increasing but remains below that of fully developed economies, and exports of high value-added, knowledge-intensive services remain relatively limited.

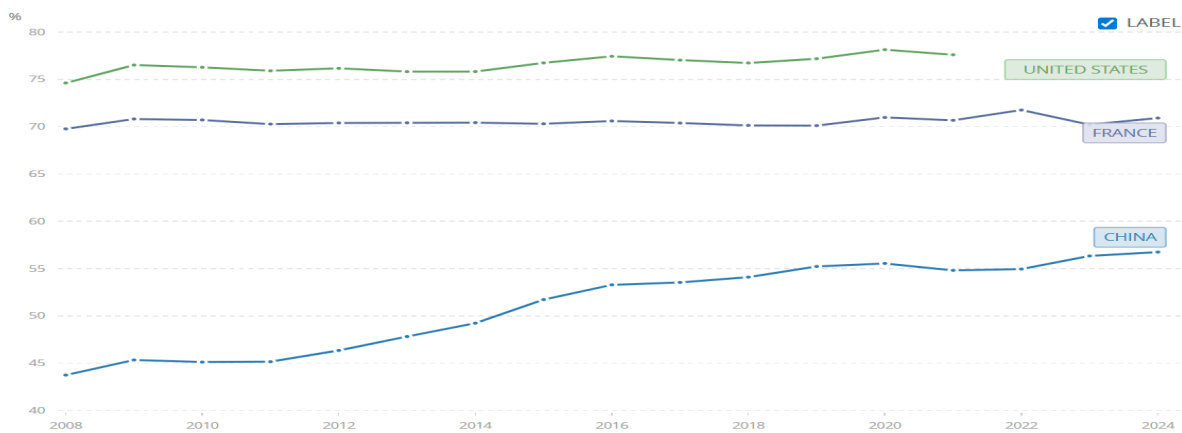


Figure 19. Trends in the share of services in GDP in the countries studied (2008-2024).³⁹

China mainly exports complex goods; it does not yet export knowledge-intensive services comparable to those of the United States on a large global scale.

³⁸ UNCTAD, “Merchandise: Product concentration and diversification indices of exports and imports, annual (analytical)”, *unctadstat.unctad.org*, Data Hub, <https://unctadstat.unctad.org/datacentre/dataviewer/US.ConcentDiversIndices>.

³⁹ World Bank, “Services, value added (% of GDP) - China, United States, France”, *data.worldbank.org*, <https://data.worldbank.org/indicator/NV.SRV.TOTL.ZS?end=2024&locations=CN-US-FR&start=2008>.

ii. **The United States: A Post-Industrial Economy with Very High Knowledge Intensity**

The United States' ECI is historically high and relatively stable. Despite slight erosion linked to the advanced shift towards a service-based economy, the country's position remains among the highest globally. The US productive structure is based on a combination of complex industries (aerospace, defence, biotechnology, semiconductors) and services with very high knowledge intensity (finance, software, intellectual property, digital platforms).

The HHI remains low, reflecting high export diversification. The slight recent concentration reflects more a strategic refocusing on certain key technological segments than a structural weakening.

The strength of the US lies less in manufacturing volume than in its capacity to organise and capture value within global value chains.

iii. **France: High Complexity but Industrial Erosion**

France retains a high ECI, firmly anchored in the group of advanced economies. However, a slight decline has been observed over the past decade, consistent with the relative contraction of its industrial base.

Its export profile remains sophisticated, but concentrated around strategic sectors: aerospace, luxury goods, pharmaceuticals and energy. The HHI shows a slight deterioration, reflecting increased dependence on these areas of excellence.

France remains a complex economy, but its move up the value chain relies more on niches of excellence than on broad-based industrial diversification.

3. A Structural Criterion for Advanced Development

Productive complexity and diversification are among the most decisive criteria of economic development, as they reveal the **underlying structure of an economy**. Unlike cyclical indicators, they measure the capacity to produce, combine and diffuse sophisticated knowledge and capabilities over the long term. This structural nature justifies a **very high weighting (5/5)**.

The United States has the profile of a **fully post-industrial economy with very high knowledge intensity**. Its ECI remains among the highest in the world, its diversification is broad, and its capacity to dominate advanced technological segments remains intact. The slight erosion observed is more closely linked to the shift towards a service-based economy than to any loss of sophistication. Its productive structure remains central to global value chains (**9/10**).

France retains a high level of complexity and solid diversification, consistent with the standards of advanced economies. However, gradual industrial erosion and an increased concentration in certain strategic sectors **limit its capacity to move up the manufacturing value chain** compared with the major industrial powers. It is still a complex economy, but one that is structurally less expansive (**8/10**).

China has achieved spectacular progress in its ECI and now has the most diversified manufacturing base in the world. It now rivals advanced economies on the industrial front. However, the still limited share of knowledge-intensive service exports and the **incomplete transition to a fully post-industrial model** justify a slightly intermediate position (**8.5/10**).

Ultimately, this criterion confirms that all three economies belong to the group of sophisticated productive systems. The difference no longer lies in the degree of industrial diversification, but in the **ability to combine advanced industry with global services**, the current frontier of advanced economic development.

Criterion	Criterion weighting (/5)	China	United States	France
<i>Economic sophistication (/10)</i>	5	8.5	9	8

Table 19. Economic sophistication score.

K. SUMMARY OF SCORES AND OVERALL INDEX

Criterion	Criterion weighting (/5)	China	United States	France
<i>Standard of living and socio-economic effectiveness (/10)</i>	4	6	8.5	7.5
<i>General price level (/10)</i>	1	6.5	7	8
<i>Growth dynamics (/10)</i>	2	8	7.5	6
<i>Productive efficiency (/10)</i>	3	7.5	8.5	6.5
<i>External balances (/10)</i>	2	6.5	5	7.5
<i>Financial credibility (/10)</i>	4	7	9	8.5
<i>Debt sustainability (/10)</i>	3	6.5	7	6
<i>Access to international finance (/10)</i>	4	6	9.5	8.5
<i>Trade and monetary power (/10)</i>	2	8.5	9	7.5
<i>Economic sophistication (/10)</i>	5	8.5	9	8
<i>Economic development score (/10)</i>	30	7.10	8.32	7.52

Table 20. Summary of the economic development score.

Aggregating the ten criteria provides a synthesis of the economic, financial and trade dimension of development. Each criterion has been weighted according to its degree of structural importance, with total weightings adding up to 30.

These scores confirm that the three economies belong to the group of **advanced productive systems**, but also reveal substantial differences in their degree of autonomy, financial centrality and post-industrial maturity.

The combined analysis of the ten criteria highlights strong commonalities. All three countries have:

- a sophisticated productive base,
- high export diversification,
- deep integration into global trade and financial flows,
- institutions capable of absorbing major shocks.

These characteristics clearly place them above the level of traditional emerging economies.

However, **differences emerge on the most decisive systemic criteria**: external financial credibility, monetary status, capacity for independent access to financing in periods of crisis, and the sustainability of imbalances. It is based on these dimensions that the final hierarchy is determined.

These results enable us to establish a **typology of developed countries**. The United States dominates the key criteria: productive complexity, technological leadership, monetary centrality, access to international finance, and safe-haven status. It combines:

- financial and monetary leadership,
- the capacity for market-based shock absorption,
- the export of capital, standards and knowledge-based services,
- a fully developed post-industrial model.

The imbalances observed (high public debt, current account deficits) are absorbed by the depth of financial markets and the international role of the dollar. As such, the US is the contemporary benchmark for a **“systemic advanced economy”** model.

France exhibits a relatively homogeneous developed-economy profile:

- high standard of living,
- robust institutions,
- a high degree of service-sector development,
- deep regional integration,
- solid export diversification.

Its score is high but capped by a narrower industrial base, limited monetary autonomy, and lower financial centrality than the United States. France’s power is more collective (euro area) than individual. It embodies a **mature, stabilised model of development**, but without global systemic leadership when considered on its own.

China achieves very high scores on the productive and industrial criteria:

- among the highest levels of complexity and diversification in the world,
- dominant manufacturing power,
- exceptional investment capacity.

However, it is penalised by still intermediate GDP per capita, a currency that is not fully convertible, high value-added services that remain only partially internationalised, and a financial integration that remains partly administered. China fits neither the traditional emerging model nor the Western post-industrial model. It is an **advanced economy in transition**, with high industrial density but still incomplete institutional and financial maturity.

After applying our index to China, the United States and France, a first finding emerges. The three economies studied belong to the group of advanced productive systems, yet present radically different combinations of strengths and vulnerabilities. The aggregated scores should therefore not be read as a ranking, but rather as the synthesis of a set of indicators whose coherence reveals “profiles” of economic development. In other words, the main value of the index lies not in determining which country is the most developed, but in showing how each model holds together, and where it may fracture. The next step is to interpret the results, highlight the most relevant gaps, and identify the pressures and trajectories currently reshaping the contours of economic development.

III. WHAT THE INDEX REVEALS: TYPOLOGIES, PRESSURES AND TRAJECTORIES

The aggregation of the ten economic criteria is not an end in itself. It produces a synthetic score, but more importantly a structured mapping of contemporary economic development models. The index has made it possible to measure, compare and rank objective dimensions of economic development. This section now aims to provide an interpretative analysis.

The aim is no longer to add up indicators, but to understand the configurations they create. The scores obtained by China, the United States and France do not merely reflect performance gaps; they reveal distinct economic architectures, implicit trade-offs and differentiated trajectories. Each country combines, to varying degrees, productive power, financial soundness, institutional maturity and innovative capacity. The question is therefore what forms of development these combinations give rise to.

This analysis moves beyond the traditional distinction between “developed” and “developing” countries. The three economies studied belong to the same advanced group, but embody three contemporary types of development: a “frontier” economy at the core of the system, a “mature” economy with strong institutional cohesion, and a “hybrid” economy still in transition, with incomplete maturity. This typology aims to shed light on the internal tensions of these economic development models.

The next step is to identify these contemporary forms of economic development and provide a synthetic visualisation to highlight structural gaps and internal trade-offs. Finally, the analysis will examine development as a capacity to withstand the shocks of the 21st century (whether they be climatic, technological or geopolitical) and explore the pressures currently pushing models towards increasing hybridisation.

In this respect, the index reveals unstable balances. Economic development appears less as a state than as a constrained trajectory, in which each model seeks to reconcile efficiency, sovereignty and inclusion without being able to optimise all three simultaneously.

A. THREE CONTEMPORARY FORMS OF ECONOMIC DEVELOPMENT

The aggregated scores do not simply provide an ordinal ranking. They reveal distinct structural configurations of contemporary development. Based on the observed gaps, it is possible to identify three typological forms, each corresponding to a particular balance between productive power, institutional strength and international integration.

1. The United States: A “Frontier” Advanced Economy

The results of our index confirm that the United States holds a singular position in the contemporary hierarchy of economic development. It stands out for its high level of wealth and the large size of its economy, but also for its capacity to position itself at the technological, financial and organisational frontier of the international system.

The term “frontier economy” refers here to a stage of development in which growth stems more from creation than from catch-up or imitation. The United States accounts for a major share of breakthrough innovation in the fields of artificial intelligence, biotechnology,

quantum computing, digital platforms and finance. Its hourly productivity remains among the highest in the world, and its capacity to turn innovation into economic value is underpinned by an ecosystem combining universities, venture capital, financial markets and transnational firms.

This frontier position is evident in several dimensions of our index. The United States dominates the criteria relating to financial credibility, access to international finance, trade power and, above all, monetary power, as well as structural sophistication. The international role of the dollar affords it a unique systemic advantage. The country is able to sustain external and budget deficits over time on favourable terms. This “exorbitant privilege” is a multiplier of economic and geopolitical power, allowing the United States to absorb imbalances that would be unsustainable for other economies.

However, the frontier model has its own internal pressures. The United States combines a high level of public debt, persistent current account deficits, and a structural dependence on household consumption. The scale of its financial markets and the centrality of the dollar make these imbalances sustainable in the short and medium term, but they create a potential vulnerability in the event of an erosion of monetary confidence or international financial fragmentation. In addition, social polarisation, income inequality and the high cost of essential services, such as healthcare, place a strain on internal cohesion and may limit the diffusion of productivity gains across the population as a whole.

The US frontier economy is therefore characterised by constant tension between innovative dynamism and distributive weaknesses. It maximises efficiency and innovative capacity, at the cost of accepting greater budgetary and social imbalances. This configuration reflects a structural trade-off in favour of performance and systemic centrality.

The United States is the contemporary benchmark of “systemic” advanced development. Its economy is capable of producing and innovating, while also imposing the financial and monetary rules of the international economy. US leadership seems to rest less on the absence of weaknesses than on its capacity to absorb them without any immediate loss of centrality.

2. France: A “Mature” Advanced Economy

Unlike the US model, France embodies a form of development that can be described as “mature”. This term refers neither to decline nor to mechanical stagnation, but rather to a stage of institutional and social consolidation where the priority lies in optimising an already high level of economic and social balance rather than in rapid expansion or continuous technological breakthroughs.

France clearly belongs to the group of developed economies with a high standard of living. Its GDP per capita in PPP remains high and, more importantly, its capacity to convert wealth into social wellbeing results in a very high Human Development Index. This relatively homogeneous transformation of wealth into health, education and social protection is one of the distinctive features of its model.

The “mature” nature of the French economy is also reflected in the structure of its growth. This is more moderate than in catch-up economies and less driven by major technological breakthroughs than is the case in the United States. The productive base remains sophisticated, with clearly identified areas of excellence (aerospace, luxury goods, pharmaceuticals, energy, high value-added services), but movement up the value chain relies

more on the consolidation of existing segments than on the creation of new globally dominant sectors.

On the financial and institutional front, France benefits from strong external credibility, underpinned by its membership of the euro area. Its access to international finance is stable, financial flows are transparent and institutional strength is high. However, this robustness is partly pooled at European level. The country's monetary autonomy is indirect and its adjustment capacity relies largely on a collective framework. France therefore has real financial power, but this is less autonomous than that of the United States, as the country is embedded in the EU framework.

The model's main limitations appear on two fronts. On the one hand, productivity growth remains moderate and potential growth is constrained by structural rigidities, less favourable demographics and a relatively narrower industrial base than that of the major manufacturing powers. On the other hand, high public debt gradually reduces fiscal room for manoeuvre, even if sustainability remains assured in the short and medium term.

The French economy is thus characterised by a structural trade-off in favour of inclusion and stability. The model prioritises social cohesion and quality of life, at the cost of more measured productive dynamism and less pronounced international centrality. It is a stabilised form of economic development, institutionally robust, but whose ability to maintain its relative position will depend on its capacity to reconnect industrial competitiveness, technological innovation and fiscal sustainability.

France embodies an advanced and stabilised form of economic development. Its model is mature, balanced and resilient, but faces the constant challenge of renewing its growth drivers without undermining its social model.

3. China: A "Hybrid" and "Systemic" Advanced Economy

China holds a singular position in the typology derived from our index. It fits neither the classic emerging economy model nor the fully post-industrial advanced economy model. It lies in an intermediate configuration that could be described as a hybrid and systemic advanced economy. Hybrid, because it combines characteristics typical of developed economies with features still associated with economies in transition. Systemic, because its productive, trade and financial weight is now such that its internal imbalances produce global effects.

On the productive front, China has crossed a critical threshold. Its ECI is now comparable to that of the major industrial powers. Its manufacturing base is one of the most diversified in the world, spanning the entire industrial spectrum, from capital goods to green technologies. It has established itself as a central player in global value chains, particularly in strategic sectors such as batteries, electrical equipment, rail infrastructure and certain digital technologies. This industrial move up the value chain gives China the profile of a "partial frontier" economy. It is at the leading edge in certain technological segments, yet in others remains dependent on standards and infrastructures established elsewhere. Innovation is massive in volume, but still unevenly diffused and territorially concentrated.

However, this productive power coexists with a still intermediate standard of living. GDP per capita remains significantly lower than that of Western economies. The gap between industrial sophistication and average income per capita is one of the central paradoxes of the Chinese model. It reflects uneven development, in which technological density has not yet

been fully converted into a homogeneous standard of living. Vulnerabilities also appear on the financial and demographic fronts. Total non-financial debt is high and concentrated in certain segments, particularly real estate and local authorities. While this debt is overwhelmingly domestic and denominated in national currency, which limits the risk of a classic external crisis, it nevertheless weighs on the efficiency of capital allocation and on future productivity growth. Moreover, the country's demographic slowdown constitutes a structural headwind, mechanically reducing long-term growth potential.

On the international monetary and financial front, China remains in an intermediate position. It has considerable foreign exchange reserves and substantial capacity for intervention. However, its currency has not yet acquired an international status comparable to that of the US dollar or even the euro. China does have access to international finance, but it does not have safe-haven status. In periods of global stress, capital tends to flow out rather than in spontaneously.

China thus embodies an advanced economy in transition. The density and diversification of its productive structure have taken it beyond the stage of classic emergence, but it has not yet reached the level of institutional, financial and social maturity of fully developed economies. Its model rests on a delicate balance between industrial power, state control and the pursuit of a gradual expansion of domestic consumption.

China represents a new contemporary form of development. It is a major industrial power with incomplete maturity, endowed with considerable systemic capacity, but still engaged in a process of internal transformation whose outcome will depend on its ability to simultaneously resolve its financial, demographic and social pressures without weakening its productive base.

B. VISUALISING DEVELOPMENT GAPS

To make these gaps more clearly visible, the scores are now represented graphically. This visualisation does not serve as an additional assessment tool, but rather as an instrument for analysing the results.

1. Comparative Radar Chart of Economic Development

Aggregating the ten criteria provides a synthetic overview of the economic profiles of the three countries studied. However, a purely tabular comparison of scores is not sufficient to capture the geometry of the gaps. For this reason, we use a radar chart to visualise the relative strengths and weaknesses of each model simultaneously across all the selected dimensions.

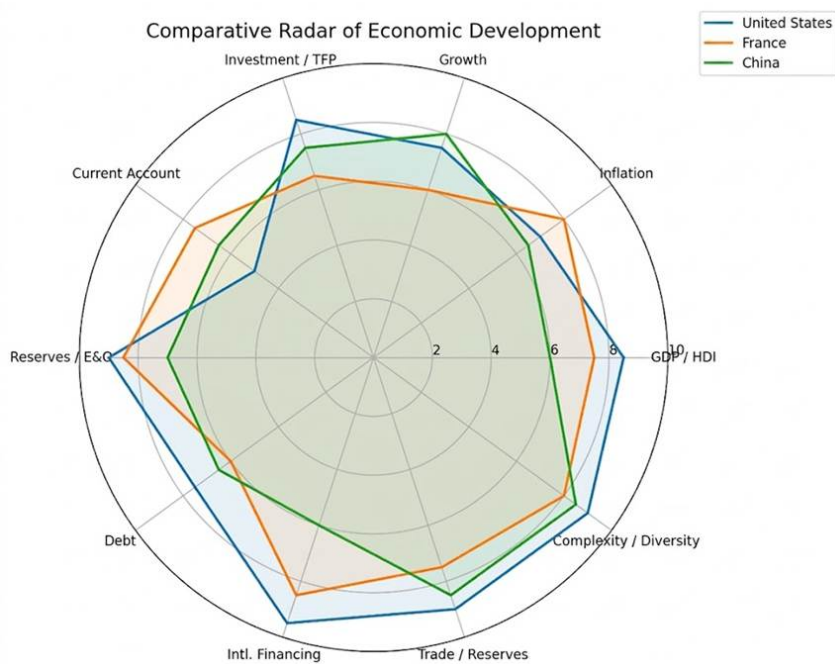


Figure 20. Comparative radar chart of economic development.

The radar chart immediately highlights areas of convergence and divergence between the economic development models of the three countries studied.

The United States covers a broad and relatively homogeneous area across the systemic criteria: financial credibility, access to international finance, trade and monetary power, economic sophistication. Its profile is particularly pronounced along the dimensions linked to financial and monetary centrality. The dips observed relate mainly to external balances and debt sustainability and show that US superiority lies more in its capacity to absorb imbalances than in their absence.

France shows a more regular and balanced surface, but one that is overall more contained. It does not dominate any criterion overwhelmingly, but nor does it show any extreme weakness. Its profile fits that of a mature developed economy with institutional stability, strong financial credibility and a high standard of living, but more moderate productive dynamics and overall growth.

By contrast, China's profile is more uneven. Its surface is very extensive across the productive criteria (complexity, trade power, growth dynamics), but more compressed on the financial and institutional dimensions (access to international finance, external credibility, debt sustainability). The radar chart visually reflects its hybrid nature, combining advanced industrial power with incomplete financial maturity.

The relative proximity of the overall surfaces of France and China deserves special attention. While this graphical proximity might suggest equivalence in terms of development, this is not the case. It in fact reflects an offsetting of vulnerabilities of a different nature. France offsets weaker productive dynamics with high institutional strength. China offsets an intermediate standard of living with exceptional manufacturing power and strong investment capacity.

The radar chart also shows that the United States dominates through its positioning on the most structurally important criteria rather than through the absence of vulnerabilities.

The high weightings assigned to economic sophistication, financial credibility and access to international finance mechanically amplify the United States' systemic advantage.

This graphical representation confirms that economic development cannot be reduced to a single indicator. It is a multidimensional structure. The surfaces do not merely measure a level; they reveal an underlying development structure. It is this architecture, more than the aggregate score, that makes it possible to understand the trajectories and potential vulnerabilities of the three models.

2. Cross-Analysis of Strengths and Weaknesses

While the comparative radar chart provides a synthetic snapshot of relative levels of development, it must be interpreted in light of the internal coherence of the economic development models. What truly distinguishes contemporary trajectories is not only the level reached, but also how each economy compensates for its structural weaknesses through specific strengths. Advanced development thus appears less as a linear accumulation of performances than as an unstable balance between dominant strengths and contained vulnerabilities.

The US model offsets its vulnerabilities through its centrality in the international economic system. Internal imbalances (persistent budget deficits, high debt, social polarisation) are absorbed by the nodal position of the US dollar in the international financial system and by the unparalleled development of US capital markets. In other words, US sustainability does not rest on balanced accounts, but on the capacity to attract global savings continuously. This architecture creates a fundamental asymmetry: as long as confidence in US financial and monetary institutions remains intact, the imbalances remain financeable. The vulnerability is therefore not immediate; in the event of an erosion of monetary credibility or prolonged geopolitical fragmentation, it would be systemic and gradual.

The French model is underpinned by a logic of institutional cushioning. Limited productive room for manoeuvre, moderate growth and partial industrial erosion are offset by high institutional density, a credible monetary anchoring and a stabilising redistributive system. French sustainability is based on the relative homogeneity of the overall set of criteria and does not depend on the dominance of any single pillar. This configuration reduces the risk of a sudden disruption, but also limits the capacity for rapid acceleration. France's vulnerability is therefore dynamic. It lies in the gap that could progressively widen vis-à-vis more dynamic economies if productive investment and innovation do not regain momentum.

The Chinese model is based on offsetting its weaknesses through productive intensity. The still intermediate standard of living and internal financial vulnerabilities are counterbalanced by an ultra-diversified industrial base, exceptional investment capacity, and strong strategic autonomy. The coherence of the Chinese model lies not in its current balance, but in its capacity for mobilisation. The state has access to budgetary, regulatory and financial levers enabling it to direct resources rapidly towards strategic priorities. The vulnerability of the Chinese model is therefore more structural than cyclical (dependence on investment, diminishing returns to capital, rapid demographic transition). The central question is therefore how to convert productive power into sustainable income and lasting social stabilisation.

The radar chart brings to the fore a more subtle differentiation than that suggested by aggregate levels of economic development alone. The vulnerabilities of each model are not

symmetrical and do not produce the same risks. They reflect distinct historical trade-offs between efficiency, stability and sovereignty.

C. DEVELOPMENT AS A CAPACITY FOR RESILIENCE

The synthetic index and the comparative radar chart have made it possible to identify different development configurations. However, they are not sufficient to capture the capacity of an economic model to absorb a systemic shock without lasting disruption. As has already been established, economic development is no longer defined solely by a level of wealth or productive sophistication. It is also measured by how robust a system is in the face of financial, trade, monetary or geopolitical pressures. To formalise this dimension, we propose a two-dimensional representation that explicitly distinguishes between two structural pillars.

1. Two-Dimensional Projection of Economic Models

The projection is based on an analytical aggregation of the ten criteria around two axes: x (capacity to produce), and y (capacity to finance and stabilise). The horizontal axis aggregates the criteria related to productive dynamism, economic complexity, diversification and trade integration. The vertical axis synthesises the criteria related to debt sustainability, access to international finance, stability of flows, and macro-financial credibility.

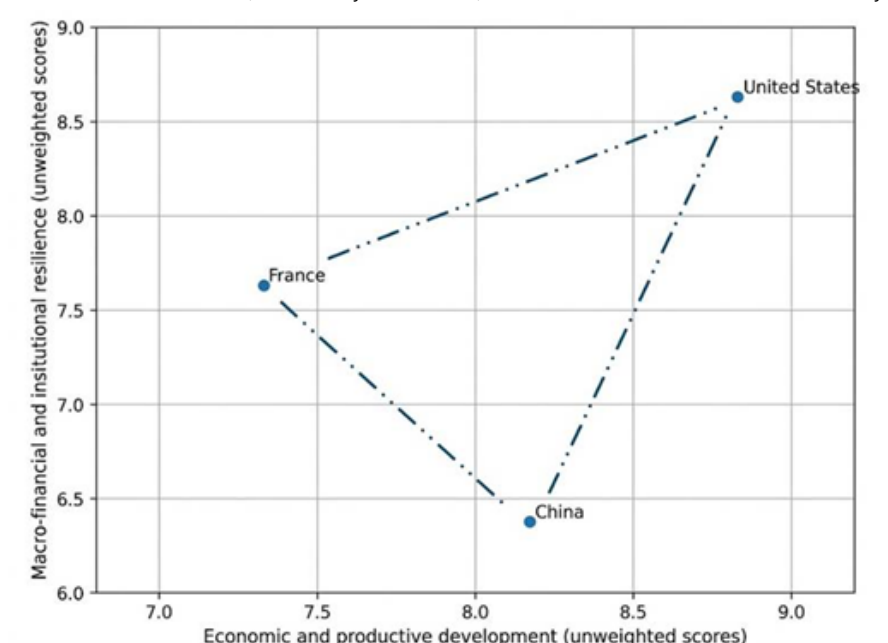


Figure 21. Two-dimensional projection: productive capacity and institutional strength

The graphical representation reveals three clearly distinct positions, one for each of the countries studied.

2. Productive Capacity Versus Institutional Strength

This representation makes it possible to distinguish the levels of development beyond income per capita alone. Long-term resilience is understood here as the balance between the capacity to produce efficiently and innovate, and the capacity to stabilise and secure sustainable financing.

The relative positioning of the countries in this graphical projection confirms that China can be highly advanced in productive terms without being fully developed institutionally, that France can be institutionally strong but have more limited productive power, and that the United States combines both dimensions but with latent imbalances. More unexpectedly, the positioning of the three countries forms a triangle that may be described as a “triangle of incompatibilities”, akin to the “impossible trinity” or trilemma popularised by Mundell and Fleming.

This triangular positioning suggests the existence of fundamental structural trade-offs. This opens the way to an interpretation in terms of strategic incompatibilities.

D. THE TRIANGLE OF INCOMPATIBILITIES APPLIED TO THE DEVELOPMENT MODELS

The preceding two-dimensional projection already suggested that the US, French and Chinese models differ not only in their level of development, but in how they make trade-offs between structural constraints. To formalise this intuition, a triangular analysis of contemporary economic development can be introduced. This representation draws on the trilemma logic developed in international economics. Certain objectives cannot be maximised simultaneously without generating internal or external tensions. When applied to the development models, this logic leads to the identification of three key vertices of the triangle, each corresponding to a distinct structural priority.

1. Efficiency, Sovereignty and Inclusion: Three Competing vertices

The first vertex is efficiency and economic growth. It refers to total factor productivity, technological innovation, market flexibility and value creation capacity. Its optimisation generally presupposes a high degree of capital mobility, intense competition and relative deregulation. Historically, this vertex fosters dynamism and movement up the value chain, but tends to increase social inequalities, cyclical volatility and exposure to financial shocks.

The second vertex is sovereignty and state capacity. It refers to the capacity of the state to strategically direct its economy: industrial policy, capital controls, control over critical technologies, monetary autonomy or the securing of supply chains. Strengthening this vertex increases strategic independence and political stability, but often introduces bureaucratic rigidities, allocative distortions and lower capital efficiency.

The third vertex is social inclusion and cohesion. It refers to redistribution, social protection, equal access to public services, and domestic political stability. Strengthening this vertex enhances democratic legitimacy and social stability, but reduces cost competitiveness, increases fiscal pressure and may create a lasting budgetary constraint.

These three vertices are not inherently incompatible, but their simultaneous maximisation generates structural tensions. An economy that prioritises efficiency accepts some degree of social fragmentation; an economy that prioritises inclusion accepts more moderate growth; and an economy that prioritises sovereignty accepts some degree of inefficiency.

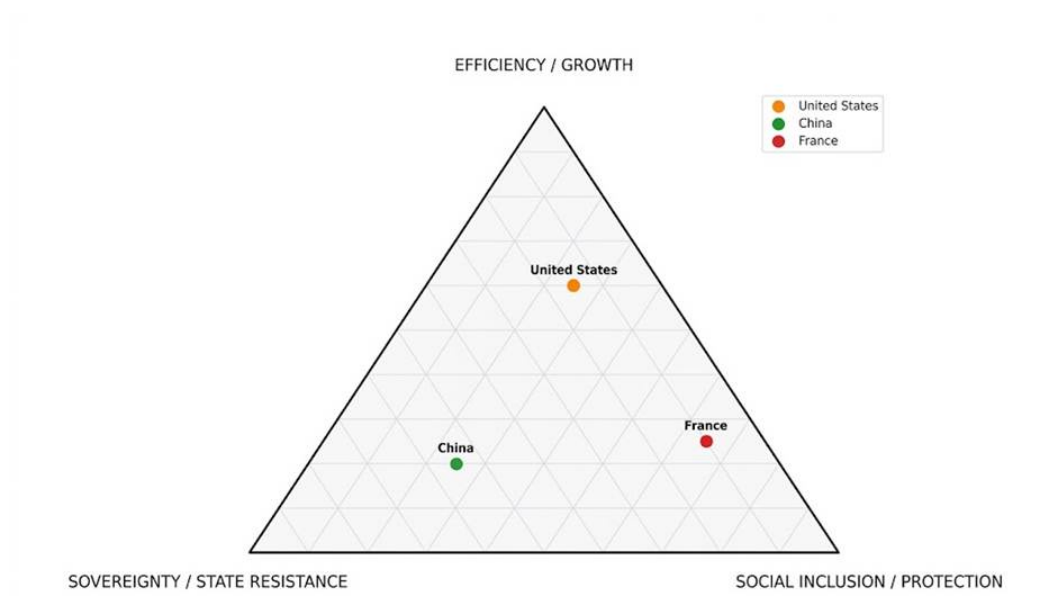


Figure 22. The triangle of incompatibilities applied to the development models

2. Historical Trade-Offs and Economic Identities

When applied to the three countries studied, this framework reveals distinct economic identities rooted in their historical trajectories.

The United States is structurally positioned closest to the efficiency vertex. Its model is based on disruptive innovation, deep financial markets, and the monetary centrality of the US dollar. This “exorbitant privilege” makes it possible to absorb external deficits and high public debt without immediate disruption. On the downside, social inequalities and political polarisation are persistent vulnerabilities. Efficiency takes precedence over inclusion; industrial sovereignty is now being rebalanced, albeit belatedly.

China is positioned primarily near the sovereignty vertex. The state plays a central role in capital allocation, sectoral planning and the securing of strategic technologies. Economic efficiency is mobilised as an instrument of national power. Social inclusion remains secondary but essential for political stability. Chinese state capitalism explicitly embraces this trade-off: priority is given to regime survival and strategic autonomy, even at the cost of inefficiencies or internal imbalances.

And lastly, France is historically anchored in the inclusion vertex. Redistribution, social protection and national cohesion are the foundation of its model. Economic sovereignty is partially pooled within the European framework, while economic efficiency is pursued within budgetary and social constraints. Growth is more moderate, but institutional stability is high.

Thus, the triangle measures a **configuration of political and economic trade-offs** rather than a degree of development. It reveals that each model prioritises one vertex to the relative detriment of the other two. No country can occupy the exact centre. The centre represents the simultaneous optimisation of all three vertices, a hypothesis incompatible with real-world constraints on resources, political legitimacy and macroeconomic balance.

Contemporary development is therefore shaped by an implicit trilemma. Maximising efficiency, sovereignty and inclusion generates cumulative tensions. The attempts at “hybridisation” observed since the late 2010s reflect precisely a desire to reconfigure these trade-offs. The United States is reintroducing industrial policy and strategic protection

measures. China is seeking to broaden the social foundations of “common prosperity”. France is attempting to increase its competitiveness without dismantling its redistributive model. These shifts reflect a reconfiguration of the triangle rather than its disappearance. Models do not exit the trilemma; they reposition themselves within it. The next section analyses how the convergence of climate, technological and geopolitical pressures could accelerate this repositioning and lead to a constrained hybridisation of the development models.

E. THE CONVERGENCE OF PRESSURES AND THE HYBRIDISATION OF THE MODELS

The “triangle of incompatibilities” describes relatively stable structural trade-offs. However, since the early 2020s, these national balances have come under increasing pressure. Development models are no longer shifting solely as a result of domestic political choices, but under the effect of a **convergence of exogenous pressures**, which tends to reduce the scope for trade-offs. This is no longer merely a theoretical trilemma; it reflects a systemic environment in which climate, technological, geopolitical and demographic constraints interact and reinforce one another.

1. Climate, Technology and Geopolitics: Cumulative Constraints

On the one hand, the energy transition simultaneously requires public planning, a massive mobilisation of private capital, and social acceptability. Decarbonisation requires strategic public investment (sovereignty), rapid innovation (efficiency), and compensation for households to offset the costs incurred (inclusion). No single vertex of the triangle is sufficient on its own to address the climate challenge.

On the other hand, artificial intelligence, automation and dual-use technologies are profoundly reshaping potential productivity gains. They require a high-performing entrepreneurial ecosystem (efficiency), strategic control over critical infrastructure (sovereignty), and management of distributional effects (inclusion). The technological race between the world’s major powers makes a purely liberal or purely state-controlled model unviable.

Finally, the fragmentation of value chains, mutual sanctions and the securing of strategic supplies are leading to a return of the strategic state. Full globalisation is giving way to selective globalisation. This reconfiguration requires the combination of protection, competitiveness and internal cohesion.

These pressures overlap, and their simultaneity creates a multiplier effect that amplifies structural vulnerabilities in economies. A property crisis can turn into a financial crisis and then a political crisis, while a trade war can amplify a demographic vulnerability. The concept of “polycrisis” captures this dynamic of interdependence.

2. Towards a Constrained Convergence of Development Trajectories

As a result of this convergence of pressures, the three national models are tending to move towards a more central position within the triangle.

While historically its position has leaned more strongly towards efficiency, the United States is reintroducing elements of economic sovereignty via industrial policies, export

restrictions on critical technologies, and strategic subsidies. The objective is to secure the country's productive base without relinquishing technological leadership.

China, whose position is anchored in sovereignty, is seeking to broaden the social foundations of its model through "common prosperity" and an attempt to shift the balance towards domestic consumption. The challenge is to stabilise the social foundations without weakening productive dynamism.

France, strongly anchored in the inclusion vertex, is attempting to increase its competitiveness and industrial capacity in a constrained fiscal context. Its challenge is thus to increase efficiency without eroding social cohesion.

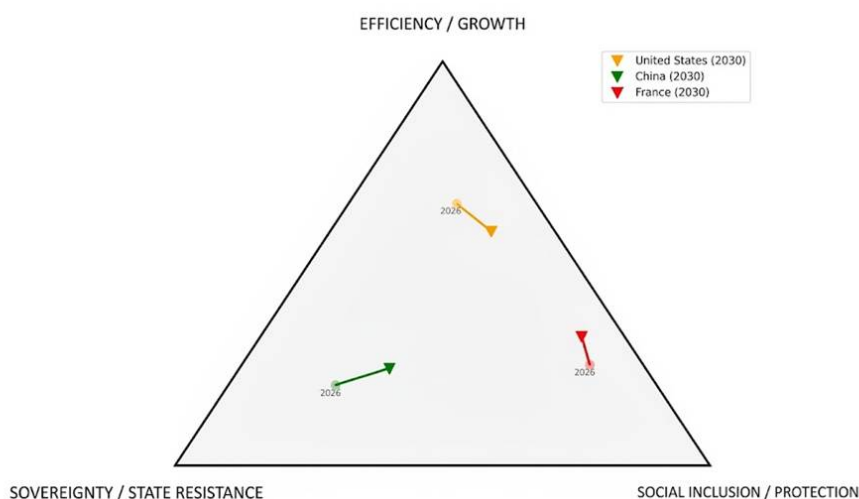


Figure 23. Evolution of the triangle of incompatibilities (2020-2035).

The convergence of models does not imply their uniformisation. Rather, it reflects a process of strategic adaptation in which each country seeks to partially incorporate the strengths of its competitors without abandoning its core identity.

3. The Outlook to 2030: Hybridisation or Instability?

By 2030-2035, three major forces are likely to reinforce this dynamic. First, the "climate wall" requires planning, innovation and social acceptability to be addressed simultaneously. Second, the need for economic security is compelling even the most liberal economies to strengthen their sovereign instruments. Finally, increasing domestic political pressures, including inequalities, populism and demographic shifts, are making it increasingly difficult to neglect the social pillar of public policy.

The central area of the triangle is thus becoming a strategic space of resilience, characterised by a form of permanent compromise aimed at minimising the risk of systemic disruption. The shift from a logic of maximising one vertex of the triangle to one of seeking balance is a significant change for economies and is not without risk. In attempting to increase efficiency, sovereignty and inclusion simultaneously, states might increase institutional complexity, blur fiscal responsibility and reduce strategic clarity. Resilience therefore requires close coordination of public policies and the ability to make rapid trade-offs.

In this context, the classical view of economic development as a linear trajectory towards a theoretical end state appears increasingly outdated. Economic development

becomes a process of continuous adjustment in the face of multiple constraints. The most successful models will therefore be those capable of maintaining a dynamic balance between productivity, financial stability and social cohesion.

CONCLUSION

The aim of this first volume was to move beyond the binary categories inherited from the 20th century and propose an economic development evaluation method adapted to the contemporary transformations of the global economy. The analysis carried out using a multifactorial index applied to China, the United States and France leads to a key finding. Economic development can no longer be reduced to a level of income per capita, a cyclical performance, or even to productive sophistication alone. It must be understood as a coherent architecture of productive, financial and institutional capacities whose robustness is assessed over the long term and in its ability to withstand shocks.

The construction of the index has highlighted the multidimensional nature of development. Standard of living is an essential foundation, but it is only fully meaningful when considered in relation to the quality of the productive structure, debt sustainability, external financial credibility, the capacity to access international capital and the position in global trade and monetary flows. This set of indicators reveals that economies clearly belonging to the group of advanced systems may nonetheless display profoundly different structural configurations.

The results do not lend themselves to a simple hierarchical reading, but instead delineate distinct profiles of development. The United States emerges as a systemic frontier economy, whose financial and monetary centrality enables it to absorb imbalances that would be unsustainable elsewhere. France embodies a mature, institutionally and socially stabilised developed economy, but whose productive dynamism remains more moderate and whose strategic autonomy is partially pooled. Finally, China emerges as a hybrid advanced economy, endowed with manufacturing power and productive complexity comparable to those of the major industrial economies, but still engaged in an incomplete process of financial, social and institutional maturation. These differences reflect distinct structural trade-offs rather than differences in kind.

The main contribution of this approach lies precisely in the shift in perspective it brings. Development is no longer approached as a status, but as a structural configuration. The question is no longer whether a country belongs to the category of developed economies according to a predefined threshold, but whether its economic model displays internal coherence and robust shock absorption mechanisms. Resilience thus becomes the ultimate criterion of advanced development, whether in the form of productive resilience, through innovative capacity and movement up the value chain; financial resilience, through credibility and autonomous access to capital; or institutional resilience, through the sustainability of internal and external balances.

This multifactorial approach fundamentally reshapes the analysis of contemporary trajectories. It shows that a current account deficit can be compatible with a high level of development if there is sufficient monetary credibility; that a persistent trade surplus can coexist with internal vulnerabilities; that exceptional industrial power does not in itself guarantee full financial maturity; and that a high standard of living does not mechanically protect against a gradual erosion of productive dynamism. Economic development thus

appears to be an unstable balance between several complementary dimensions, rather than a permanently acquired state.

It is nevertheless important to underline the inherent limitations of this exercise. By deliberately isolating the economic, financial and trade dimension, this volume does not claim to exhaust the concept of development. The human, institutional, technological, strategic and environmental dimensions remain essential complementary components. The synthetic score proposed should not be interpreted as a normative ranking, but as an analytical tool designed to shed light on the underlying structures of the economic models studied. Its value lies in the coherence of the overall framework and the transparency of the methodology.

Ultimately, this first volume does not put forward policy recommendations, but proposes a method. It invites readers to reconsider development as a dynamic process of continuous adjustment between production, financing and cohesion, in a global environment shaped by the climate transition, geopolitical fragmentation and technological acceleration. Economic development can no longer be thought of as a mere accumulation of wealth; it must be understood as the capacity of a system to maintain the coherence of its internal balances over time in the face of multiple constraints.

The question is therefore no longer whether a country is developed, but how it is developed, through which trade-offs it sustains its stability, and under what conditions it will be able to preserve that coherence in a changing international order. Subsequent volumes will focus on these additional dimensions.

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