
FRBSF WEEKLY LETTER

November 27, 1987

Export Promoting Development Strategies

There is a widely held view that international trade has served as an engine of growth for the majority of newly emerging industrialized countries over the past three decades. In particular, countries such as South Korea and Brazil seem to have had particular success with export promotion development strategies as opposed to import-substitution strategies (which are designed to encourage domestic production as substitutes for imports).

Support for export promotion policies is not universal, however, and indeed there remains some dispute over the empirical record apparently indicating their success. This *Letter* critically reviews the basic theoretical and empirical arguments put forward in support of export promotion development strategies. We conclude that export promotion policies are probably most effective when they are imbedded in a broader policy of liberalization designed to open an economy to international trade and to increase the importance of the market mechanism.

Supporting arguments

An export-oriented policy, as distinct from a market-oriented policy, indicates a policy bias toward promotion of the export sector at the expense of other sectors of the economy. In this development strategy, a government plays a major role in setting export production goals and implements policies designed to achieve those goals. The spectrum of export-oriented policies ranges from uniform export subsidies to industrial policies that set sectoral priorities for investment, credit, foreign exchange, and so on, all of which aim to make the structure of production conform to the export strategy.

Numerous arguments have been made for why an explicitly export-oriented policy bias is likely to spur rapid economic development. They include economies of scale (lower unit costs) when expansion into foreign markets allows longer production runs, easing of foreign

exchange constraints (and the ability to buy imports essential to domestic production processes) by the sale of exports, greater incentives for technological improvements and more efficient management techniques due to competitive pressures encountered on foreign markets, and better sectoral allocation of resources.

These arguments suggest that the benefits of export-oriented growth policies work through two basic channels: (1) greater productivity gains in the export sector as compared to the nonexport sector and (2) spillover effects, or externalities, from the export sector to the nonexport sector.

The first channel is operative if the productivity of resources devoted to the export sector were greater than that of resources devoted to the nonexport sector. In a competitive economy, one would expect the market and price mechanism to work toward eliminating existing productivity differentials. That is, one would expect entrepreneurs in the normal course of investment decisions and without government incentives to devote additional resources to the sector where they anticipate the greatest productivity differential, and can tap the largest profit potential. For this reason, the argument for intersectoral productivity differentials is usually combined with the assertion of market failure, i.e., with a reason private business is not already investing optimally in response to existing profit opportunities.

The externality channel is operative when increasing output in the export sector leads to a rise in nonexport output even when the resource commitment in that sector is unchanged. Economists term the rise in nonexport output an "externality" effect because the production increase is associated with factors outside, or external to, the normal process of production in the nonexport sector. For example, technological and managerial improvements

FRBSF

associated with increasing resources devoted to the export sector may spill over into the nonexport sector and raise output there as well.

Export-oriented policies operating through externalities may be optimal even when market forces are functioning perfectly well. Market forces alone would tend not to expand the export sector to the socially optimal size because some of the benefits from additional investments would flow to other sectors and could not be fully captured by firms engaged in export production. In fact, the existence of externality effects is a classic case given by economists in support of interventionist government policies.

Evidence: pro

The conventional wisdom supporting export promotion policies is based less on theoretical analysis than on empirical evidence gleaned from a number of in-depth studies of individual countries and several extensive cross-country studies. These studies have indicated that developing countries with favorable export growth have tended to experience higher rates of growth of national income. Since exports are a component of aggregate output, one would expect this positive correlation, but a number of studies also have found that exports contribute more to GNP growth than just an increase in exports.

An important project of the National Bureau of Economic Research (NBER) identified two key examples of nations that have at different times aggressively pursued export-promotion development strategies: South Korea and Brazil. In the early 1960s, South Korea switched from import-substitution policies to export-promotion policies; Brazil made a similar switch in 1968. As a result, export volume in Korea grew fourfold between 1963 and 1969, almost tenfold during the 1970s, and almost doubled between 1981 and 1986. Brazil's export volume (excluding coffee) more than tripled between 1968 and 1974, and almost doubled between 1975 and 1980.

Both Korea and Brazil altered their economic systems to provide a bias toward exports, but the subsequent growth far exceeded expectations. Korea's average annual real gross national product (GNP) was 11 percent between 1963

and 1969, 10 percent between 1970 and 1979, and 7½ percent between 1981 and 1985 (1980 is omitted due to the political and economic turmoil in Korea at the time). Brazil's average annual real GNP growth rate was 10 percent between 1968 and 1974 and 6½ percent between 1975 and 1980. In the aftermath of the world recession and international debt problem, Brazil's real GNP has stumbled along, averaging only about 1 percent annual growth. The NBER study suggested that both countries' economic performance up until the latter 1970s improved by considerably more than the direct contribution of the increase in exports.

Beyond individual case studies, several broad empirical studies investigating the average association between the growth of exports and the growth of GNP across developing countries over time periods spanning several decades (cross-section studies) have unambiguously supported the export-promotion hypothesis: those developing countries with higher than average export growth over extended periods have also tended to experience higher than average output growth.

In one important recently published cross-sectional study of a large number of semi-industrialized, less developed countries, Gershon Feder of the World Bank finds that marginal factor productivity and externality effects in the export sector are significant. He concludes that growth can be generated not only by increases in the aggregate levels of labor and capital, but also by the re-allocation of existing resources from the less efficient nonexport sector to the higher productivity export sector. This basic finding has been confirmed by numerous other cross-sectional analyses of exports and growth.

Evidence: con

In sharp contrast to the in-depth individual country studies and cross-country empirical analyses, at least two very recent empirical studies of the causal relation between exports and GNP growth cast some doubt on the efficacy of export promotion policies.

Jung and Marshall investigated the lead and lag timing patterns between exports and output growth for 37 separate developing countries and found only a few cases where exports clearly

“cause” output growth. Most surprising, perhaps, is that they found little support for the export promotion hypothesis in those newly industrialized countries (NICs) that have both experienced rapid economic growth and been extremely successful in penetrating world markets with their exports (e.g., South Korea, Taiwan, Brazil, and so on).

Reconciliation

The debate over the optimal set of government policies to promote economic development will not be easily resolved, not least because the empirical validity of the export promotion hypothesis remains in doubt. At present, the strong evidence in support of an export-promotion development strategy offered by country studies and cross-section comparisons are discounted by the negative findings of time-series “causality” work.

What reasonable explanation can reconcile these apparently contradictory results? The most obvious potential explanation, of course, is that the export promotion hypothesis is not strictly true. Rapid export growth may well be naturally entangled with the overall development process when market-oriented liberalization policies are pursued and the economy becomes more open to international trade. The empirical evidence unambiguously supports the view that allowing market forces and the price system to work promotes economic growth. World Bank studies, for example, have found that the average output growth of those developing nations that allowed market forces to reduce price distortions in the

1970s was about 7 percent a year — or 2 percentage points higher than the overall average.

The process of market liberalization would be typified by the switch from an import-substitution policy — which has involved a heavily regulated economy with controls specifically directed toward slowing imports in an attempt to promote domestic industry — to a more liberal trading regime and open economy. Under such a process, both exports and output would tend to grow quickly on average — the result noted in cross-sectional studies — but it would be inappropriate to infer from this growth a cause and effect relationship running from exports to output.

The lack of evidence for a cause and effect relationship is not really as strong a critique of export-promotion policies as it may appear. To a large extent, a shift toward export-promotion policies has meant, in practice, dismantling an import-substitution policy bias in the economy. The result oftentimes has been to move the economy toward a more “neutral” market-oriented stance rather than to swing it full circle toward an export-oriented bias. In this sense, rapid export growth — as resources move from import-substituting production to exports — even if it is not strictly “causing” a strong output response, is nonetheless an integral part of the growth process as the economy responds to a more balanced development policy.

Michael Hutchison

Opinions expressed in this newsletter do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco, or of the Board of Governors of the Federal Reserve System.

Editorial comments may be addressed to the editor (Gregory Tong) or to the author Free copies of Federal Reserve publications can be obtained from the Public Information Department, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco 94120. Phone (415) 974-2246.

Alaska Arizona California Hawaii Idaho
Nevada Oregon Utah Washington

Research Department
Federal Reserve
Bank of
SAN FRANCISCO

BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding	Change from	Change from 11/5/86	
	11/4/87	10/28/87	Dollar	Percent ⁷
Loans, Leases and Investments ^{1 2}	209,228	342	3,955	1.9
Loans and Leases ^{1 6}	184,602	582	50	0.0
Commercial and Industrial	51,463	353	430	0.8
Real estate	72,091	145	5,228	7.8
Loans to Individuals	36,933	66	4,430	10.7
Leases	5,392	24	151	2.7
U.S. Treasury and Agency Securities ²	17,364	278	4,571	35.7
Other Securities ²	7,262	37	567	7.2
Total Deposits	209,652	4,199	520	0.2
Demand Deposits	54,209	2,870	1,152	2.0
Demand Deposits Adjusted ³	36,551	1,075	14,013	27.7
Other Transaction Balances ⁴	20,509	852	2,027	10.9
Total Non-Transaction Balances ⁶	134,934	477	355	0.2
Money Market Deposit Accounts—Total	44,198	208	2,209	4.7
Time Deposits in Amounts of \$100,000 or more	31,832	341	1,709	5.0
Other Liabilities for Borrowed Money ⁵	26,587	140	818	2.9
Two Week Averages of Daily Figures	Period ended 11/2/87	Period ended 10/19/87		
Reserve Position, All Reporting Banks				
Excess Reserves (+)/Deficiency (-)	86	61		
Borrowings	4	22		
Net free reserves (+)/Net borrowed(-)	81	39		

¹ Includes loss reserves, unearned income, excludes interbank loans

² Excludes trading account securities

³ Excludes U.S. government and depository institution deposits and cash items

⁴ ATS, NOW, Super NOW and savings accounts with telephone transfers

⁵ Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources

⁶ Includes items not shown separately

⁷ Annualized percent change